

The Web Development Glossary

More Than
2,000

Key Terms for
Developers

Jens Oliver

Meiert



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For Beatriz.

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Introduction

This is a glossary for web development.

It covers more than 2,000 [with the latest update more than 3,000] important, useful, and historic terms and abbreviations relevant for web (and software) developers.

The glossary acquaints and reunites you with the major standards and concepts of the Web, with HTML, CSS, JavaScript, accessibility, security, performance, code quality, internationalization, localization, editors and tooling and more. It then goes beyond web development, touching on computer science, design, typography, usability and user experience, information as well as project management, other disciplines of interest and relevance to the modern developer. It goes beyond, inspiring the curiosity to learn more about the Web and the people creating and using it.

The glossary does not tell a story in the same way as other books do, but it still tells a story. It tells a story that is sterile yet messy. It tells a story that only started three decades ago and that is still unfolding. It tells a story that starts with you. Why you? Because you are at your own stage of web development—and because web development is only unfolding, only so alive, because of people like you, people who take a personal interest in it. When you read the glossary like you would read another book, you may notice. (Yet still, it is a glossary.)

*
**

Many explanations and definitions in this glossary are based on Wikipedia and the MDN Web Docs. It was neither necessary nor desirable to come up with a new and different explanation for every term.

Arrows (“→”) point to the expanded forms of abbreviations, and to the more common synonyms and expressions. Sometimes they take you on a little detour, but only to be transparent about the journey taken (like Personal Home Page → PHP → Hypertext Preprocessor, or HTML 5 → HTML → HyperText Markup Language). This may seem lengthy, but it aims to make meanings, relationships, and sometimes history more clear. An arrow may also point at a term that encompasses the referring term, or at a related concept, and therefore does not necessarily indicate identity or equivalence.

Whenever there is a source of great quality or immediate use, explanations include references to external documentation and software.

Some terms and abbreviations have several meanings. Only the tech-related ones are shown.

Sometimes there is imprecision: Is a home page a special type of web page, but a *homepage* another word for a website? (Per this book, trying to gauge how “most” people use the respective terms, this is so.)

Unfortunately, there are going to be inconsistencies, probably errors, and perhaps also controversy. Please [help improve the glossary](#) as well as, if applicable, Wikipedia and MDN Web Docs. Giving back to the communities, work on the book has led to numerous small improvements to both [Wikipedia](#) and [MDN Web Docs articles](#), but it is unlikely that these improvements covered all there was to improve. Thank you for sharing your knowledge and taking the time to contribute as well.

This all being said: Enjoy. Web development is a great field.



Licenses

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A great number of explanations build on [Wikipedia](#). They are marked “†” and attributed in the *Appendix*. The original material is licensed under a [CC BY-SA 3.0 license](#).

Some explanations build on the [MDN Web Docs](#). They are marked “‡” and likewise attributed in the *Appendix*. The original material is licensed under a [CC BY-SA 2.5 license](#).

A handful of explanations build on the [HTML Living Standard](#). They are marked “§”. The original material is licensed under a [CC BY 4.0 license](#).

The Web Development Glossary

!./_

!important

An indicator for a declaration that, by virtue of the CSS cascade, is to take precedence over a normal declaration.

.gitignore

A plain-text file that, one per line, contains patterns for files and directories to be ignored by Git version control.

.htaccess

A directory-level configuration file supported by several web servers, used for the configuration of website access issues, such as URL redirection, URL shortening, access control, and more. A site could have more than one .htaccess file, and the files are placed inside the web tree (i.e., inside directories and their subdirectories). .htaccess files act as a subset of the server's global configuration file (like httpd.conf) for the directory that they are in, or all subdirectories. The original purpose of .htaccess—reflected in its name—was to allow per-directory access control by, for example, requiring a password to access web content. More commonly, however, the .htaccess files define or override many other configuration settings such as content type, character set, CGI handlers, etc. †

.htpasswd

A flat file used to store usernames and password for basic authentication on an Apache HTTP Server. The name of the file is given in the .htaccess configuration, and can be anything although “.htpasswd” is the canonical name. .htpasswd is often maintained with the shell command “htpasswd” which can add, delete, and update users, and will properly encode the password for use (so that it is easily checked, but not reversed back to the original password). The file consists of rows, each row corresponding to a username, followed by a colon, followed by a string containing the hashed password optionally prepended by an algorithm specifier (\$2y\$, \$apr1\$, or {SHA}) or salt. The hash historically used “Unix crypt” style with MD5 or SHA1 as common alternatives, although as of version 2.2.18 a variant of MD5 is now the default. †

.NET

→ .NET Framework

.NET Framework

A software framework developed by Microsoft that runs primarily on Microsoft Windows. The .NET Framework includes a large class library named as Framework Class Library (FCL) and provides language interoperability (each language can use code written in other languages) across several programming languages. Programs written for the .NET Framework execute in a software environment (in contrast to a hardware environment) named the Common Language Runtime (CLR). The CLR is an application virtual machine that provides services such as

security, memory management, and exception handling. As such, computer code written using the .NET Framework is called managed code. FCL and CLR together constitute the .NET Framework. .NET was first released in 2002. † i dotnet.microsoft.com

/dev/null

→ Null device

__qem

A proprietary, unofficial CSS unit (“quirky em”) to manage margins in reflow roots (body, th, and td) similar to the Internet Explorer web browser. According to [the source code](#), “When the quirky value is used, if you’re in quirks mode, the margin will collapse away inside a table cell.” __qem was originally spelled with one underscore, _qem.



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

0-9

8.3 A filename convention used by old versions of DOS and versions of Microsoft Windows prior to Windows 95 and Windows NT 3.5. 8.3 is also used in modern Microsoft operating systems as an alternate filename to the long filename for compatibility with legacy programs. 8.3 filenames are limited to at most eight characters (after any directory specifier), followed optionally by a filename extension consisting of a period (".") and at most three further characters. †

11ty

→ Eleventy

20 FTP data transfer TCP port number.

21 FTP control TCP port number.

22 SSH TCP port number.

23 Telnet TCP port number.

25 Simple Mail Transfer Protocol (SMTP) TCP port number.

2FA → Two-factor authentication

53 Domain Name System (DNS) TCP and UDP port number.

70 Gopher TCP port number.

79 Finger TCP and UDP port number.

80 Hypertext Transfer Protocol (HTTP) TCP port number.

88 Kerberos authentication TCP and UDP port number.

100 "Continue" HTTP status code.

101 "Switching Protocols" HTTP status code.

102 "Processing" HTTP status code (WebDAV).

109 Post Office Protocol (POP2) TCP port number.

110 Post Office Protocol (POP3) TCP port number.

143 Internet Message Access Protocol (IMAP) TCP port number.

200 "OK" HTTP status code.

201 "Created" HTTP status code.

202 "Accepted" HTTP status code.

203 "Non-Authoritative Information" HTTP status code.

204 "No Content" HTTP status code.

205 "Reset Content" HTTP status code.

206 "Partial Content" HTTP status code.

207 "Multi-Status" HTTP status code (WebDAV).

220 Internet Message Access Protocol (IMAP) TCP and UDP port number.

226 "IM Used" HTTP status code.

300 "Multiple Choices" HTTP status code.

301 "Moved Permanently" HTTP status code.

- 302 “Found” (previously “Moved Temporarily”) HTTP status code.
- 303 “See Other” HTTP status code.
- 304 “Not Modified” HTTP status code.
- 305 “Use Proxy” HTTP status code.
- 306 Now unused, former “Switch Proxy” HTTP status code.
- 307 “Temporary Redirect” HTTP status code.
- 308 “Permanent Redirect” HTTP status code.
- 389 Lightweight Directory Access Protocol (LDAP) TCP port number.
- 400 “Bad Request” HTTP status code.
- 401 “Unauthorized” HTTP status code.
- 403 “Forbidden” HTTP status code.
- 404 “Not Found” HTTP status code.
- 405 “Method Not Allowed” HTTP status code.
- 406 “Not Acceptable” HTTP status code.
- 407 “Proxy Authentication Required” HTTP status code.
- 408 “Request Timeout” HTTP status code.
- 409 “Conflict” HTTP status code.
- 410 “Gone” HTTP status code.
- 411 “Length Required” HTTP status code.
- 412 “Precondition Failed” HTTP status code.
- 413 “Request Entity Too Large” HTTP status code.
- 414 “Request-URI Too Long” HTTP status code.
- 415 “Unsupported Media Type” HTTP status code.
- 416 “Requested Range Not Satisfiable” HTTP status code.
- 417 “Expectation Failed” HTTP status code.
- 418 “I’m a teapot” HTTP status code, a 1998 IETF April Fools’ joke.
- 421 “Misdirected Request” HTTP status code.
- 422 “Unprocessable Entity” HTTP status code (WebDAV).
- 423 “Locked” HTTP status code (WebDAV).
- 424 “Failed Dependency” HTTP status code (WebDAV).
- 425 “Too Early” HTTP status code.
- 426 “Upgrade Required” HTTP status code.
- 428 “Precondition Required” HTTP status code.
- 429 “Too Many Requests” HTTP status code.
- 431 “Request Header Fields Too Large” HTTP status code.
- 443 Hypertext Transfer Protocol Secure (HTTPS) TCP port number.
- 451 “Unavailable For Legal Reasons” HTTP status code.
- 500 “Internal Server Error” HTTP status code.
- 501 “Not Implemented” HTTP status code.
- 502 “Bad Gateway” HTTP status code.
- 503 “Service Unavailable” HTTP status code.
- 504 “Gateway Timeout” HTTP status code.

- 505 “HTTP Version Not Supported” HTTP status code.
- 507 “Insufficient Storage” HTTP status code (WebDAV).
- 511 “Network Authentication Required” HTTP status code.
- 992 Telnet over TLS/SSL TCP and UDP port number.
- 993 Internet Message Access Protocol over TLS/SSL (IMAPS) TCP port number.
- 995 Post Office Protocol 3 over TLS/SSL (POP3S) TCP and UDP port number.



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

A

A An IPv4 address resource record in the Domain Name System (DNS). †

A List Apart

A popular online magazine that “explores the design, development, and meaning of web content, with a special focus on web standards and best practices.” A List Apart was founded in 1998. † [i alistapart.com](http://alistapart.com)

A/B testing

A user experience research methodology. A/B tests consist of a randomized experiment with two variants, A and B. A/B testing includes the application of statistical hypothesis testing or “two-sample hypothesis testing” as used in the field of statistics. It is a way to compare two versions of a single variable, typically by testing a subject’s response to variant A against variant B, and determining which of the two variants is more effective. †

A11Y

→ Accessibility

AAA

→ Arrange, Act, Assert

AAAA

An IPv6 address resource record in the Domain Name System (DNS). †

Above the fold

The part of a web page that is visible without scrolling.

Absolute domain name

→ Fully qualified domain name

Abstract Data Type

A mathematical model for data types, where a data type is defined by its behavior (semantics) from the point of view of a user of the data, specifically in terms of possible values, possible operations on data of this type, and the behavior of these operations. †

Abstraction

A way to reduce complexity and allow efficient design and implementation in complex software systems. Abstractions hide the technical complexity of systems behind simpler APIs. †

Accelerated Mobile Pages

A web component framework and a website publishing technology developed by Google which has the mission to “provide a user-first format for web content.” The AMP framework consists of three components: AMP HTML, which is standard HTML markup with web components, AMP JavaScript, which manages resource loading, and AMP caches, which serve and validate AMP pages. Most AMP pages are delivered by Google’s AMP cache. AMP was released in 2015. † [i amp.dev](http://i.amp.dev)

Accept-CH

An HTTP header that is used to specify which Client Hints headers a client should include in subsequent requests. †

Acceptance Test-Driven Development

A development methodology based on communication between the business customers, the developers, and the testers. ATDD aids developers and testers in understanding the customer's needs prior to implementation, and allow customers to be able to converse in their own domain language. †

Acceptance testing

A test conducted to determine if the requirements of a specification or contract are met. In systems engineering it may involve black-box testing performed on a system prior to its delivery. In software testing the ISTQB (International Software Testing Qualifications Board) defines acceptance testing as formal testing with respect to user needs, requirements, and business processes conducted to determine whether a system satisfies the acceptance criteria and to enable users, customers, or other authorized entities to determine whether to accept the system. Acceptance testing is also known as user acceptance testing (UAT), end user testing, operational acceptance testing (OAT), acceptance test-driven development (ATDD), or field (acceptance) testing. Acceptance criteria are the criteria that a system or component must satisfy in order to be accepted by a user, customer, or other authorized entity. †

Access control

The selective restriction of access to a place or other resource, while access management describes the process. The act of accessing may mean consuming, entering, or using. †

Access Control List

A list of permissions associated with an object. An ACL specifies which users or system processes are granted access to objects, as well as what operations are allowed on given objects. Each entry in a typical ACL specifies a subject and an operation. †

Access key

In accessibility, a shortcut to jump to a specific web page via the keyboard. Access keys were introduced in 1999 and quickly achieved near-universal browser support. †

In computer security, security credentials that consist of an access key ID and a secret access key.

Access logs

→ Server logs

Access token

A token that contains the security credentials for a login session and that identifies a user, a user's groups, a user's privileges, and, in some cases, a particular application. Typically, one may be asked to enter an access token (e.g., 40 random characters) rather than the usual password (an access token should therefore be kept secret just like a password). †

Accessibility

The design and development of products, devices, services, and environments so that they are usable by people with disabilities. In the context of the Web it means to make information and services usable by as many people as possible. †

Accessibility Conformance Testing

A rule format for the testing of conformance with accessibility standards. [i w3.org/WAI/standards-guidelines/act](http://w3.org/WAI/standards-guidelines/act)

Accessibility Object Model

A representation of the DOM that is being used by assistive technology. [i wicg.github.io/aom/spec](http://wicg.github.io/aom/spec)

Accessibility tree

→ Accessibility Object Model

Accessible Rich Internet Applications

A collection of roles, states, and properties that define accessible user interface elements and can be used to improve the accessibility and interoperability of web content and applications.

[i w3.org/TR/wai-aria](http://w3.org/TR/wai-aria)

ACID

→ Atomicity, Consistency, Isolation, Durability

Acid tests

A range of web standards compliance tests that were set up in 1999 (Acid1), 2005 (Acid2), and 2008 (Acid3). [i acidtests.org](http://acidtests.org)

ACK

A signal that is passed between communicating processes, computers, or devices to signify acknowledgement, or receipt of message, as part of a communications protocol like the Transmission Control Protocol (TCP). †

ACL

→ Access Control List

ACM

→ Association for Computing Machinery

Acq-hiring

→ Acqui-hiring

Acqui-hiring

The process of acquiring a company primarily to recruit its employees, rather than its products or services. “Acqui-hiring” is a portmanteau of “acquisition” and “hiring.” The term was first used in 2005. †

ACSS

→ Atomic CSS

ACT

→ Accessibility Conformance Testing

Action item

→ Todo

ActionScript

An object-oriented programming language originally developed by Macromedia (later acquired by Adobe). ActionScript is influenced by HyperTalk, the scripting language for HyperCard. It is now an implementation of ECMAScript, though it originally arose as a sibling, both being influenced by HyperTalk. ActionScript is used primarily for the development of websites and software targeting the Adobe Flash Player platform, used on web pages in the form of embedded SWF files. †

Active redundancy

A design concept that increases operational availability and that reduces operating cost by automating critical maintenance actions. †

Active Server Pages

A server-side script engine for dynamically generated web pages. ASP can be written in a scripting language such as VBScript, JScript, or PerlScript. ASP were introduced in 1996 by Microsoft. †

Active Users

A performance metric for the success of an Internet product such as a social networking service, online game, or mobile app. It measures how many users visit or interact with the product or service over a given interval. This metric is commonly assessed per month as monthly active users (MAU), per week as weekly active users (WAU), or per day as daily active users (DAU). †

ActiveX

A software framework that allows applications to share information and functionality, based on the Component Object Model (COM) and Object Linking and Embedding (OLE). ActiveX was introduced in 1996 by Microsoft.

Adaptive

An aspect of or synonym for agile development.

Adaptive loading

The loading of web resources depending on the connection type and speed.

Adaptive technology

Technology specifically designed for and used by people with disabilities. Adaptive technology often refers to electronic and information technology access. It is a subset of assistive technology. †

Addon

→ Plugin

Address Resolution Protocol

A communication protocol used for discovering the link layer address, such as a MAC address, associated with a given internet layer address, typically an IPv4 address. This mapping is a critical function in the Internet protocol suite. ARP was defined in 1982 by RFC 826, which is Internet Standard STD 37. †

Adobe ColdFusion

→ ColdFusion

Adobe Dreamweaver

→ Dreamweaver

Adobe Flash

→ Flash

Adobe Photoshop

→ Photoshop

ads.txt

An initiative from the IAB Technology Laboratory that specifies an “ads.txt” text file that companies can host on their web servers, listing the other companies authorized to sell their

products or services. This is designed to allow online buyers to check the validity of the sellers from whom they buy, for the purposes of Internet fraud prevention. ads.txt was introduced in 2017. †

ADT

→ Abstract Data Type

Advanced Encryption Standard

A specification for the encryption of electronic data established in 2001 by the U.S. National Institute of Standards and Technology (NIST). AES is a subset of the Rijndael block cipher developed by Vincent Rijmen and Joan Daemen. For AES, NIST selected three members of the Rijndael family, each with a block size of 128 bits, but three different key lengths: 128, 192, and 256 bits. †

Advanced Package Tool

A software user interface that works with core libraries to handle the installation and removal of software on Debian, Ubuntu, and related Linux distributions. APT simplifies the process of managing software on Unix-like computer systems by automating the retrieval, configuration, and installation of software packages. †

Advanced Persistent Threat

A stealthy threat actor, typically a nation state or state-sponsored group, which gains unauthorized access to a computer network and remains undetected for an extended period. In recent times, the term may also refer to non-state-sponsored groups conducting large-scale targeted intrusions for specific goals. The median time an APT attack goes undetected differs widely between regions. †

AES

→ Advanced Encryption Standard

Affordance

Those action possibilities that are readily perceivable by an actor, that is, an affordance suggests how an object may be interacted with. For example, an underlined word on a web page has the affordance of being clickable. †

Agile

An umbrella term for approaches to project management and software development under which self-organizing, cross-functional teams cooperate with customers and users to produce requirements and solutions. Agile advocates adaptive planning, evolutionary development, early delivery, continuous improvement, and encourages rapid and flexible response to change. †

Agile Manifesto

→ Manifesto for Agile Software Development

AirMosaic

An early commercial web browser based on the NCSA Mosaic browser. AirMosaic was released in 1994. †

AJAX/Ajax

→ Asynchronous JavaScript and XML

ALA

→ A List Apart

ALGOL

→ Algorithmic Language

Algorithm

A finite sequence of well-defined, computer-implementable instructions, typically to solve a class of problems or to perform a computation. Algorithms are unambiguous specifications for performing calculation, data processing, automated reasoning, and other tasks. †

Algorithmic Language

A family of imperative computer programming languages, originally developed in the mid-1950s, which greatly influenced many other languages and was the standard method for algorithm description used by the Association for Computing Machinery (ACM) in textbooks and academic sources for more than 30 years. †

Aliasing

An effect that causes different signals to become indistinguishable (or aliases of one another) when sampled. Aliasing also often refers to the distortion or artifact that results when a signal reconstructed from samples is different from the original continuous signal. Aliasing can occur in signals sampled in time, for instance digital audio, and is referred to as temporal aliasing. It can also occur in spatially sampled signals (e.g., moiré patterns in digital images); this type of aliasing is called spatial aliasing. Aliasing is generally avoided by applying low pass filters or anti-aliasing filters (AAF) to the input signal. †

Almost standards mode

→ Almost strict mode

Almost strict mode

A third web browser compatibility mode (beside strict and quirks mode) which maintains the “traditional” vertical sizing of table cells according to the CSS 2 specification, and which treats images like block elements. †

ALPN

→ Application-Layer Protocol Negotiation

Alternate style sheet

A style sheet mutually exclusive to other style sheets, which can be selected for alternative styling. An alternate style sheet is indicated through the `alternate` keyword, as in `<link rel="alternate stylesheet" href=example.css title=Example>`.

Amaya

A web editor with browsing capabilities. Amaya was developed by the World Wide Web Consortium (W3C) and INRIA from 1996 to 2012.

Amazon Resource Name

A unique identifier for an Amazon Web Services (AWS) resource. An ARN follows the format `arn:partition:service:region:account-id:resource-id,arn:partition:service:region:account-id:resource-type/resource-id,orarn:partition:service:region:account-id:resource-type:resource-id`.

Amazon Route 53

→ Route 53

Amazon S3

→ S3

Amazon Silk

→ Silk

Amazon Simple Queue Service

→ SQS

Amazon Simple Storage Service

→ Amazon S3

Amazon SQS

→ SQS

Amazon Virtual Private Cloud

→ Amazon VPC

Amazon VPC

A commercial cloud computing service that provides users a virtual private cloud, by provisioning a logically isolated section of the Amazon Web Services (AWS) cloud. † i aws.amazon.com/vpc

Amazon Web Services

A subsidiary of Amazon that provides on-demand cloud computing platforms and APIs on a metered pay-as-you-go basis. In aggregate, these cloud computing web services provide a set of primitive abstract technical infrastructure and distributed computing building blocks and tools. AWS technology is implemented at server farms throughout the world. † i aws.amazon.com

AMD

→ Asynchronous Module Definition

American National Standards Institute

A private non-profit organization that, per its mission, “enhances both the global competitiveness of U.S. business and the U.S. quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems, and safeguarding their integrity.” The ANSI was founded in 1918. i ansi.org

American Standard Code for Information Interchange

A character encoding standard for electronic communication. ASCII was conceived in 1960 and published in 1963 by the ASA (American Standards Association), now ANSI.

AMP

→ Accelerated Mobile Pages

Analytics

→ Web analytics

Anchor

Technical name for a link, usually referring to the `a` element.

Angular

A TypeScript-based web application framework developed by Google and a community of individuals and corporations. Angular is a complete rewrite from the same team that built AngularJS. Angular was released in 2016. † i angular.io

AngularJS

A JavaScript-based frontend web framework mainly maintained by Google and a community of individuals and corporations to address challenges encountered in developing single-page applications (SPAs). AngularJS aims to simplify both the development and the testing of such applications by providing a framework for client-side model-view-controller (MVC) and

model-view-viewmodel (MVVM) architectures, along with components commonly used in rich Internet applications. AngularJS was first released in 2010 and makes for the frontend part of the MEAN stack. Google no longer updates AngularJS, and the Angular team recommends upgrading to Angular as the best path forward. † [i angularjs.org](http://angularjs.org)

Animation

A method in which images and graphics are manipulated to appear as moving. In web development, animations are often created using CSS (CSS Animations, CSS Transitions) or JavaScript. †

Anonymous block box

Within a block container box, a block-level box forced by the presence of other block-level boxes. In `<div>Some text<p>More text</div>`, “Some text” resides in an anonymous block-level box because `<p>` spawns a block-level box.

Anonymous block element

→ Anonymous block box

Anonymous function

A function definition that is not bound to an identifier. Anonymous functions are often arguments being passed to higher-order functions, or used for constructing the result of a higher-order function that needs to return a function. If the function is only used once, or a limited number of times, an anonymous function may be syntactically lighter than using a named function. Anonymous functions are ubiquitous in functional programming languages and other languages with first-class functions. †

Anonymous inline box

An inline box that does not have an associated inline-level element.

Anonymous inline element

Any text that is directly contained inside a block container element that is not inside an inline element.

Anonymous text

Any string of characters that is not contained within an inline element.

ANSI

→ American National Standards Institute

Anti-pattern

A common response to a recurring problem that is usually ineffective and risks being highly counterproductive, and that has more negative than positive consequences. †

AOM

→ Accessibility Object Model

AOMedia Video 1

A video coding format initially designed for video transmissions over the Internet. AV1 was developed as a successor to VP9 by the Alliance for Open Media (AOMedia), a consortium founded in 2015. † [i aomedia.org/av1-features](http://aomedia.org/av1-features)

Apache

→ Apache HTTP Server

Apache HTTP Server

A cross-platform web server. The Apache server was first released in 1995. [i httpd.apache.org](http://httpd.apache.org)

Apache Maven

→ Maven

Apache Subversion

→ Subversion

Apache Tomcat

→ Tomcat

Apache Weex

→ Weex

API → Application Programming Interface**API gateway**

An entry point for a system of application programming interfaces (APIs) that takes care of request routing as well as protocol translation. An API gateway also helps mitigate backend issues, for example by offering fallback or cached data.

App

→ Application

App shell

The minimal HTML, CSS, and JavaScript necessary to provide a site or app user interface.

Apple Safari

→ Safari

Apple Universal Access

→ Universal Access

Applet

Any small application that performs a specific task that runs within the scope of a dedicated widget engine or a larger program, often as a plugin. Usually referring to a Java applet, a program written in the Java programming language that is designed to be placed on a web page. An applet is not a full-featured application program but intended to be easily accessible.

†

Application

A computer program designed to help people perform an activity. An application differs from an operating system (which runs a computer), a utility (which performs maintenance or general-purpose chores), and a programming tool (with which computer programs are created). Depending on the activity for which it was designed, an application can manipulate text, numbers, audio, graphics, and a combination of these elements. Some application packages focus on a single task, such as word processing; others, called integrated software, include several applications. †

Application context

A top-level browsing context that has a manifest applied to it. ‡

Application Programming Interface

An interface or communication protocol between different parts of a computer program intended to simplify the implementation and maintenance of software. An API may be for a web-based system, operating system, database system, computer hardware, or software library.

†

Application-Layer Protocol Negotiation

A TLS extension which indicates what application layer protocol is negotiating the encrypted connection without requiring additional round trips. ALPN was specified in 2014 as RFC 7301.

‡

APT

→ Advanced Package Tool

→ Advanced Persistent Threat

AR → Augmented Reality

Arena

One of the first web browsers for Unix. Originally developed in 1993 by Dave Raggett, development continued at CERN and the World Wide Web Consortium (W3C) and subsequently by Yggdrasil Computing. Arena was used in testing the implementations for HTML 3.0, Cascading Style Sheets (CSS), Portable Network Graphics (PNG), and libwww. Arena was widely used and popular at the beginning of the World Wide Web. †

Argument

The actual input expression passed or supplied to a function, procedure, or routine in a call or invocation statement. †

ARIA

→ Accessible Rich Internet Applications

ARIA roles

A set of predefined names that can be used to specify the meaning and purpose of markup elements. Roles can cover abstract use cases, widgets, document structure, landmarks, live regions, and windows, and are set using the `role` attribute.

ARN

→ Amazon Resource Name

ARP

→ Address Resolution Protocol

Arrange, Act, Assert

A pattern to organize test methods by.

Array

A data structure consisting of a collection of elements (values or variables), each identified by at least one array index or key. An array is stored such that the position of each element can be computed from its index tuple. The simplest type of data structure is a linear array, also called one-dimensional array. †

Arrow function

An anonymous function and syntactically compact alternative to a regular function expression, although without its own bindings to the `this`, `arguments`, `super`, or `new.target` keywords. ‡

ASCII

→ American Standard Code for Information Interchange

ASI → Automatic Semicolon Insertion

ASP

→ Active Server Pages

ASP.NET

A server-side web application framework designed to build dynamic websites, applications, and services. ASP.NET was first released in 2002 with version 1.0 of the .NET Framework, and is the successor to Microsoft's Active Server Pages (ASP) technology. † i dotnet.microsoft.com/apps/aspnet

Aspect ratio

A proportional relationship between an image's width and height. The aspect ratio is commonly expressed as two numbers separated by a colon, as in 16:9. †

AssemblyScript

A TypeScript-based programming language (essentially JavaScript with static types) that is optimized for WebAssembly and compiled to WebAssembly using `asc`, the reference AssemblyScript compiler. AssemblyScript is developed by the AssemblyScript Project and the AssemblyScript community. It was first released in 2017. † i assemblyscript.org

Assignment

The setting or resetting of the value stored in the storage location(s) denoted by a variable name; in other words, an assignment statement copies a value into the variable. In most imperative programming languages, the assignment statement (or expression) is a fundamental construct. Today, the most commonly used notation for this basic operation has come to be `x = expr` (originally Superplan 1949–51, popularized by Fortran 1957 and C) followed by `x := expr` (originally ALGOL 1958, popularized by Pascal), although there are many other notations in use. †

Assistive technology

Assistive, adaptive, and rehabilitative devices and software for people with disabilities or the elderly population. Assistive technology can ameliorate the effects of disabilities that limit the ability to perform activities of daily living. †

Assistive Technology Service Provider Interface

A platform-neutral framework for providing bidirectional communication between assistive technologies (AT) and applications. AT-SPI is the *de facto* standard for providing accessibility to free and open desktops, like GNU/Linux or OpenBSD. It is led by the GNOME Project. †

Association for Computing Machinery

An international learned society for computing. The ACM was founded in 1947, and is the world's largest scientific and educational computing community. Its motto is "Advancing Computing as a Science and Profession." † i acm.org

Asynchronous

The occurrence of events independent of the main program flow. A common way for dealing with asynchrony in is to provide subroutines that return to their caller an object, sometimes called a future or promise, that represents the ongoing events. †

Asynchronous Module Definition

A specification for the JavaScript programming language. AMD defines an API that defines code modules and their dependencies, and loads them asynchronously if desired. Implementations of AMD promise website performance improvements, because AMD implementations load smaller JavaScript files, and then only when they are needed. AMD implementations also suggest fewer page errors, because developers can define dependencies that must load before

a module is executed, so the module does not try to use outside code that is not available yet.

† [i github.com/amdjs/amdjs-api](https://github.com/amdjs/amdjs-api)

Asynchronous JavaScript and XML

A set of web development techniques using web technologies on the client side to create asynchronous web applications. With AJAX, web applications can send and retrieve data from a server asynchronously (in the background) without interfering with the display and behavior of the existing page. By decoupling the data interchange layer from the presentation layer, AJAX allows web pages and applications to change content dynamically without the need to reload the entire page. In practice, modern implementations commonly utilize JSON instead of XML. †

at A command on Unix-like operating systems, Microsoft Windows, and ReactOS used to schedule commands to be executed once, at a particular time in the future. †

AT → Assistive technology

at-rule

A CSS statement starting with an at-keyword (@ and an identifier, as with @import). The at-rule holds until either the next semicolon or the next block.

AT-SPI

→ Assistive Technology Service Provider Interface

ATAG

→ Authoring Tool Accessibility Guidelines

ATDD

→ Acceptance Test-Driven Development

Atlassian Bitbucket

→ Bitbucket

Atlassian Jira

→ Jira

Atom

An XML-based feed format consisting of two web standards, the Atom Syndication Format and the Atom Publishing Protocol (AtomPub or APP).

Atomic CSS

A CSS architecture that is based on “single-purpose units of style” applied via “short, predictable class names.” [i acss.io](https://acss.io)

Atomicity, Consistency, Isolation, Durability

A set of properties of database transactions intended to guarantee validity even in the event of errors, power failures, etc. In the context of databases, a sequence of database operations that satisfies the ACID properties (which can be perceived as a single logical operation on the data) is called a transaction. The acronym was coined in 1983 by Andreas Reuter and Theo Härder.

†

Attribute

A property of an object, element, or file. An attribute may also refer to or set the specific value for a given instance. An attribute of an object usually consists of a name and a value; of an element, a type or class name; of a file, a name and extension. Attributes should be considered metadata. †

Attribute minimization

The valid option for a Boolean attribute not to have a value if it is set (and therefore true). In XML-based languages, attribute minimization is disallowed and attributes must have a value; for example, checked is suggested to be written checked="checked".

Augmented Reality

An interactive experience of a real-world environment where the objects that reside in the real world are enhanced by computer-generated perceptual information, sometimes across multiple sensory modalities, including visual, auditory, haptic, somatosensory, and olfactory. AR can be defined as a system that fulfills three basic features: a combination of real and virtual worlds, real-time interaction, and accurate 3D registration of virtual and real objects. †

Authentication

The act of proving an assertion, such as the identity of a computer system user. In contrast with identification, the act of indicating a person or thing's identity, authentication is the process of verifying that identity. †

Authoring tool

Software that enables the creation of digital content.

Authoring Tool Accessibility Guidelines

Guidelines for designing web content authoring tools that are accessible to authors with disabilities and designed to enable, support, and promote the production of more accessible web content by all authors. ATAG 1.0 became a W3C Recommendation in 2000, and ATAG 2.0 in 2015. i w3.org/TR/ATAG20

Authorization

The specifying of access rights and privileges to resources, which is related to information security and computer security in general, and to access control in particular. More formally, "to authorize" is to define an access policy. †

Automagic

A blend of "automatic" and "magic," referring to an action that is performed automatically but also in a way as to seem magical.

Automatic Semicolon Insertion

An ECMAScript feature in which a semicolon is automatically inserted when two statements are separated by a line ending or a closing brace (}), or if a line ending follows either of break, continue, return, or throw (restricted production).

Automation

A technology by which a process or procedure is performed with minimal human assistance. Automation or automatic control is the use of various control systems for operating equipment.

†

Autonomous custom element

One type of custom element for a web component. An autonomous custom element is standalone, that is, it does not inherit from standard HTML elements. Autonomous custom elements are used by literally writing them out as HTML elements. ‡

AV1

→ AOMedia Video 1

AV1 Image File Format

An image file format that uses AV1 compression algorithms. AVIF competes with HEIC which uses the same container format, built upon ISOBMFF, but HEVC for compression. Version 1.0.0 of the AVIF specification was finalized in 2019. †

Availability Zone

With Amazon Web Services (AWS), a term for one or more data centers with redundant power, networking, and connectivity. An AWS Region consists of several Availability Zones.

AVIF

→ AV1 Image File Format

AWS

→ Amazon Web Services

AZ → Availability Zone



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

B

BA → Basic access authentication

Babel

A JavaScript transpiler that is mainly used to convert ECMAScript 2015+ (ES6+) code into a backwards-compatible version of JavaScript that can be run by older JavaScript engines. † [i babeljs.io](http://babeljs.io)

Back/forward cache

A browser optimization to improve the web browsing experience. Bfcache is an in-memory cache that stores a complete snapshot of a web page to enable fast back and forward navigation.

Backend

The data access layer of software of a piece of software, usually covering business logic and data storage. In the client-server model, the server is considered the back end. †

Backend for Frontend

The concept of having separate backends per application or interface, to act as intermediaries between the respective frontends and the underlying services. BFF was introduced in 2015 by Sam Newman.

Backlink

A link from one web resource (the referrer) to another web resource (the referent), made by an anchor, as viewed from the web resource being referred to. Other words for “backlink” are “incoming link,” “inbound link,” “inlink,” “inward link,” and “citation.” †

Backup

A copy of computer data taken and stored elsewhere so that it may be used to restore the original after a data loss event. The verb form, referring to the process of doing so, is “to back up,” whereas the noun and adjective form is “backup.” Backups can be used to recover data after its loss from data deletion or corruption, or to recover data from an earlier time. Backups provide a simple form of disaster recovery. †

Backup redundancy

→ Standby redundancy

Backward compatibility

A property of a product, system, or technology that allows for interoperability with an older legacy system, or with input designed for such a system, especially in telecommunications and computing. Modifying a system in a way that does not allow backward compatibility is sometimes called breaking backward compatibility. †

Bad Neighborhood

Bad quality websites, or websites that are being penalized and downgraded by search engines. Search engine optimization (SEO) best practices suggest to avoid links to and from bad neighborhood websites.

Bada

A discontinued operating system for mobile devices such as smartphones and tablet computers. Bada was developed by Samsung. Its name is derived from “바다” (“bada”), meaning “ocean” or “sea” in Korean. Bada was released in 2010 and discontinued in 2013. †

Bandwidth

The maximum rate of data transfer across a given path. Bandwidth may be characterized as network bandwidth, data bandwidth, or digital bandwidth. †

Banner

An online advertising format, usually a horizontal or vertical rectangle in standardized sizes.

Barrierefreie-Informationstechnik-Verordnung

German accessibility regulations. i www.gesetze-im-internet.de/bitv_2_0

Base64

A group of binary-to-text encoding schemes that represent binary data in an ASCII string format by translating it into a radix-64 representation. The term “Base64” originates from a specific MIME content transfer encoding. Each Base64 digit represents exactly 6 bits of data. Three 8-bit bytes (i.e., 24 bits) can therefore be represented by four 6-bit Base64 digits. Common to all binary-to-text encoding schemes, Base64 is designed to carry data stored in binary formats across channels that only reliably support text content. Base64 is particularly prevalent on the World Wide Web where its uses include the ability to embed image files or other binary assets inside textual assets such as HTML and CSS files. †

Baseline

In European and West Asian typography and penmanship, the line upon which most letters “sit” and below which descenders extend. †

Bash

A Unix shell and command language written by Brian Fox for the GNU Project as a free software replacement for the Bourne shell. First released in 1989, Bash has been used widely as the default login shell for most Linux distributions and Apple’s macOS Mojave and earlier versions. †

Basic access authentication

A method for an HTTP user agent (e.g., a web browser) to provide a user and password when making a request. In basic HTTP authentication, a request contains a header field in the form of `Authorization: Basic <credentials>`, where “credentials” is the Base64 encoding of ID and password joined by a single colon (“:”). Basic access authentication is specified in RFC 7617 from 2015, which obsoletes RFC 2617 from 1999. †

Basic Multilingual Plane

The first Unicode plane, plane 0, containing characters for almost all modern languages, and a large number of symbols. A primary objective for the BMP is to support the unification of prior character sets as well as characters for writing. Most of the assigned code points in the BMP are used to encode Chinese, Japanese, and Korean (CJK) characters. †

BBCode

A lightweight markup language used to format posts in many message boards. The available tags are usually indicated by square brackets ([]) surrounding a keyword, and parsed by the

message board system before being translated into a markup language that web browsers understand, like HTML. †

BDD

→ Behavior-Driven Development

Behavior

In web development, the code that deals with how content can be interacted with. This is often achieved through JavaScript.

Behavior-Driven Development

An agile software development process that encourages collaboration among developers, QA, and non-technical or business participants in a software project. BDD encourages teams to use conversation and concrete examples to formalize a shared understanding of how the application should behave. It emerged from Test-Driven Development (TDD). BDD combines the general techniques and principles of TDD with ideas from domain-driven design and object-oriented analysis and design to provide software development and management teams with shared tools and a shared process to collaborate on software development. †

Below the fold

The part of a web page that is visible only after scrolling down.

BEM

→ Block Element Modifier

Best practice

A method or technique that has been generally accepted as superior to any alternatives because it produces results that are superior to those achieved by other means or because it has become a standard way of doing things, e.g., a standard way of complying with legal or ethical requirements. Best practices are used to maintain quality as an alternative to mandatory legislated standards. †

Bézier curve

A parametric curve, mathematically based on Bernstein polynomials, that is defined by a set of control points P_0 through P_n , where n is called its order, and where the first and last points are always the end points of the curve, and where intermediate control points (if any) generally do not lie on the curve. Named after Pierre Bézier (1910–1999). †

Bfcache

→ Back/forward cache

BFF

→ Backend for Frontend

BGP

→ Border Gateway Protocol

BHO

→ Browser Helper Object

Bidi

→ Bidirectional

Bidirectional

Text that contains both text directionalities, right-to-left (RTL or dextrosinistral) and left-to-

right (LTR or sinistrodextral), and which generally involves text containing different types of alphabets. †

Big Bang

The practice of releasing a great amount of working software all at one time, as opposed to incrementally.

Big integer

An integral data type of 64 bits, with a signed range from $-9,223,372,036,854,775,808$ to $9,223,372,036,854,775,807$, and an unsigned range from 0 to $18,446,744,073,709,551,615$.

Big O notation

A mathematical notation that describes the limiting behavior of a function when the argument tends towards a particular value or infinity. It is a member of a family of notations invented by Paul Bachmann, Edmund Landau, and others, collectively called Bachmann-Landau notation or asymptotic notation. In computer science, big O notation is used to classify algorithms according to how their running time or space requirements grow as the input size grows. In analytic number theory, big O notation is often used to express a bound on the difference between an arithmetical function and a better understood approximation. †

Binary chop

→ Binary search algorithm

Binary large object

A collection of binary data stored as a single entity. Blobs are typically images, audio, or other multimedia objects, though sometimes binary executable code is stored as a blob. †

Binary number

A number expressed in the base-2 numeral system or binary numeral system, which uses only two symbols: typically “0” (zero) and “1” (one). †

Binary search algorithm

A search algorithm that finds the position of a target value within a sorted array. Binary search compares the target value to the middle element of the array. If they are not equal, the half in which the target cannot lie is eliminated and the search continues on the remaining half, again taking the middle element to compare to the target value, and repeating this until the target value is found. If the search ends with the remaining half being empty, the target is not in the array. †

Binding

The association of entities (data or code) with identifiers. An identifier bound to an object is said to reference that object. Machine languages have no built-in notion of identifiers, but name-object bindings as a service and notation for the programmer is implemented by programming languages. Binding is intimately connected with scoping, as scope determines which names bind to which objects—at which locations in the program code (lexically) and in which one of the possible execution paths (temporally). †

Bitbucket

A Git-based source code repository hosting service owned by Atlassian. Bitbucket was launched in 2008. † [i bitbucket.org](https://bitbucket.org)

Bitmap

A raster graphics image file format used to store bitmap digital images, independently of

the display device (such as a graphics adapter). Also known as bitmap image file or device independent bitmap (DIB) file format. †

→ Raster image

BITV

→ Barrierefreie-Informationstechnik-Verordnung

Black hat

Someone who violates computer security or systems for personal gain or maliciousness. †

Black Mode

→ Dark Mode

Black-box testing

A method of software testing that examines the functionality of an application without peering into its internal structures or workings. This method of test can be applied virtually to every level of software testing: unit, integration, system, and acceptance. Black-box testing is sometimes referred to as specification-based testing. †

Blacklist

A basic access control mechanism that allows through all elements (email addresses, users, passwords, URLs, IP addresses, domain names, file hashes, etc.), except those explicitly mentioned. Those items on the list are denied access. The opposite of a blacklist is a whitelist.

†

Blink

A browser engine used in the Chrome web browser and other projects. It is developed as part of the Chromium project with contributions from Google, Facebook, Microsoft, Opera, Adobe, Intel, IBM, Samsung, and others. Blink was released in 2013. †

Blisk

A developer-centered cross-platform web browser. Blisk was first released in 2016. i blisk.io

Blob

In JavaScript, an object that represents a blob, which is a file-like object of immutable, raw data. Blobs can be read as text or binary data, or converted into a `ReadableStream` so its methods can be used for processing the data. Blobs can represent data that is not necessarily in a JavaScript-native format. ‡

→ Binary large object

Block

In CSS, a section enclosed by an opening (`{`) and a closing curly brace (`}`).

In JavaScript, a collection of related statements enclosed by an opening (`{`) and a closing curly brace (`}`). ‡

→ Block box

→ Block container box

→ Block container element

→ Block-level box

→ Block-level element

Block box

A block-level box that is also a block container.

Block container

→ Block container element

Block container box

A block-level box that is not a table box or the principal box of a replaced element. It either contains only block-level boxes or, if establishing an inline formatting context, only inline-level boxes.

Block container element

An element whose principal box is a block container box.

Block element

→ Block-level element

Block Element Modifier

A naming convention for HTML and CSS classes. BEM was introduced in 2005 by Yandex. i.getbem.com

Block flow

A CSS concept referring to the direction in which blocks are running. In an English document, block flow goes from top to bottom.

Block formatting context

A formatting context in which boxes are laid out vertically. Vertical margins are respected but collapse.

Block-level box

A box created by a block-level element.

Block-level element

An element that is formatted visually as a block.

Blog

A discussion or informational website published on the World Wide Web consisting of discrete, often informal diary-style text entries (posts). Posts are typically displayed in reverse chronological order, so that the most recent post appears first, at the top of the web page. Until 2009, blogs were usually the work of a single individual, occasionally of a small group, and often covered a single subject or topic. In the 2010s, “multi-author blogs” (MABs) emerged. †

Bloggling

The act of running a blog, and writing posts for a blog.

Blogosphere

A collective term for all blogs and their interconnections. The term implies that blogs exist together as a connected community (or as a collection of connected communities) or as a social networking service in which everyday authors can publish their opinions. †

BMP

→ Basic Multilingual Plane

→ Bitmap

BOM

→ Byte Order Mark

Bookmark

A URI that is stored for later retrieval in any of various storage formats. All modern web browsers include bookmark features. Bookmarks are normally accessed through a menu in the user's web browser, and folders are commonly used for organization. †

Bookmark icon

→ Favicon

Bookmarklet

Unobtrusive JavaScript stored as the URL of a bookmark in a web browser or as a hyperlink on a web page. Bookmarklets allow to add one-click functionality to the respective browser or web page. †

Boolean

A data type that has one of two possible values (usually denoted true and false) which is intended to represent the two truth values of logic and Boolean algebra. It is named after George Boole, who first defined an algebraic system of logic in the mid-19th century. The Boolean data type is primarily associated with conditional statements. †

Bootstrap

An HTML/CSS framework. [i getbootstrap.com](http://getbootstrap.com)

Border

Per the CSS box model, any kind of line (solid, dotted, dashed, etc.) surrounding an element of a document, if present. The border area lies between the padding and margin areas of a box.

Border Gateway Protocol

A standardized exterior gateway protocol designed to exchange routing and reachability information among autonomous systems on the Internet. BGP is classified as a path-vector routing protocol, and it makes routing decisions based on paths, network policies, or rule sets configured by a network administrator. It was first described in 1989 in RFC 1105, and has been in use on the Internet since 1994. †

Bottom-posting

A posting style in which the reply follows the quote. †

Bounce rate

A marketing term used in web traffic analysis that represents the percentage of visitors who enter a site and then leave ("bounce") rather than continue to view other pages within the same site. The bounce rate is calculated by counting the number of single page visits and dividing that by the total visits. It is then represented as a percentage of total visits. †

Bound variable

A variable that was previously free, but has been bound to a specific value or set of values. †

Boundary value problem

A boundary value problem is a differential equation together with a set of additional constraints, called the boundary conditions. A solution to a boundary value problem is a solution to the differential equation which also satisfies the boundary conditions. †

Bounding box

The smallest possible rectangle (aligned with the axes of that element's user coordinate system) that entirely encloses an element and its descendants. ‡

Bourne shell

A shell, or command-line interpreter, for computer operating systems. Developed by Stephen Bourne at Bell Labs, it was a replacement for the Thompson shell, whose executable file had the same name (`sh`). The Bourne shell was released in 1979 in the Version 7 Unix release distributed to colleges and universities. †

Bower

A maintenance-only package manager for the JavaScript programming language. Bower was first released in 2012. [i bower.io](#)

Box The visual space occupied by an HTML element's content. †

Box model

A concept for the rectangular boxes that are generated for elements in the document tree and laid out according to the visual formatting model. The boxes consist of content, padding, border, and margin areas.

Box model hack

A popular early 2000's workaround for Internet Explorer 5/5.5's incorrect support of the CSS box model. The box model hack was obsoleted by improved browser implementations and an additional CSS property (`box-sizing`). [i is.gd/nZKbJw](#)

Boyscout Rule

The idea to “always leave code better than you found it,” which may be [attributable to Robert C. Martin](#).

Bracket notation

One of two ways to access object properties in JavaScript (`objectName['propertyName']`), the other being dot notation.

Braille (⠠⠠⠠⠠⠠⠠⠠⠠)

A tactile writing system used by people who are visually impaired. Braille is traditionally written with embossed paper. Braille users can read computer screens and other electronic supports using refreshable braille displays. They can write braille with the original slate and stylus or type it on a braille writer, such as a portable braille notetaker or computer that prints with a braille embosser. Braille was developed in 1824 by Louis Braille, who published it in 1829. †

Branch

A duplicate of an object under version control. Branches are also known as trees, streams, or codelines. The originating branch is sometimes called the parent branch, the upstream branch (or “upstream,” especially if the branches are maintained by different organizations or individuals), or the backing stream. Child branches are branches that have a parent; a branch without a parent is referred to as the trunk or the mainline. †

Branch predication

→ Predication

Branching

The duplication of an object under version control (such as a source code file or a directory tree) so that modifications can occur in parallel along multiple branches. Branching generally implies the ability to later merge or integrate changes back onto the parent branch. †

BREAD

→ Browse, Read, Edit, Add, Delete

Breadcrumb

A graphical control element frequently used as a navigational aid in user interfaces and on web pages. It allows users to keep track and maintain awareness of their locations within programs, documents, or websites. †

Breakpoint

In software development, an intentional stopping or pausing place in a program, put in place for debugging purposes. A breakpoint is sometimes also referred to as a pause. †

In web development, any point at which a media query is introduced and the layout changed. ‡

Brewer's Theorem

→ CAP Theorem

Bring Your Own License

A licensing model that allows to use available software licenses flexibly, both on-premise and in the cloud. While BYOL can help to save licensing cost, it comes with the responsibility of managing the respective licenses.

Broken link

A hyperlink that does not work, or work anymore, that is, that points to a target that is not available. Broken links constitute link rot.

Brotli

A data format specification for data streams compressed with a specific combination of the general-purpose LZ77 lossless compression algorithm, Huffman coding, and second-order context modeling. † i github.com/google/brotli

Browse, Read, Edit, Add, Delete

A variation of CRUD. †

Browser

A software application for accessing information on the World Wide Web. When a user requests a particular website, the web browser retrieves the necessary content from a web server and displays the resulting web page on the user's device. As of March 2019, more than 4.3 billion people use a browser, which is about 55% of the world's population. The three most popular browsers are Chrome, Firefox, and Safari. †

Browser detection

→ Browser sniffing

Browser engine

A core software component of every major web browser. The primary job of a browser engine is to transform HTML documents and other resources of a web page into an interactive visual representation on a user's device. Besides "browser engine," two other terms are in common use regarding related concepts: "layout engine" and "rendering engine." In theory, layout and rendering (or "painting") could be handled by separate engines. In practice, however, they are tightly coupled and rarely considered separately. †

Browser extension

A small software module for customizing a web browser. Browsers typically allow a variety

of extensions, including user interface modifications, ad blocking, and cookie management. Browser plugins are a separate type of module. The main difference is that extensions are usually just source code, but plugins are always executables (i.e., object code). As of 2019, plugins have been deprecated by most browsers, while extensions are widely used. †

Browser Helper Object

A DLL module designed as a plugin for Microsoft's Internet Explorer web browser to provide added functionality. BHOs were introduced in 1997 with the release of Internet Explorer 4. Most BHOs are loaded once by each new instance of Internet Explorer. BHOs are still supported as of Windows 10, through Internet Explorer 11, while BHOs are not supported in Edge. †

Browser sniffing

A set of techniques used in websites and web applications in order to determine the web browser a visitor is using, and to serve browser-appropriate content to the visitor. This practice is sometimes used to circumvent incompatibilities between browsers due to misinterpretation of HTML, Cascading Style Sheets (CSS), or the Document Object Model (DOM). While the World Wide Web Consortium (W3C) maintains up-to-date central versions of some of the most important Web standards in the form of recommendations, in practice no vendor has developed a browser which adheres exactly to these standards. As a result, different browsers may display the same page differently, and browser sniffing was developed to detect the web browser in order to help ensure consistent display of content. †

Browser testing

The testing of websites and apps in different web browsers.

Browser War

A market competition between web browsers, usually referring to the First Browser War (1995–2001) between Internet Explorer (Microsoft) and Navigator (Netscape) or the Second Browser War (2004–2017) between Internet Explorer, Firefox (Mozilla), and Chrome (Google).

Browsing

A kind of orienting strategy to identify something of relevance. One of the two major ways of interacting with the Web, the other one being searching. †

Browsing context

The environment in which a browser displays a document, as with a tab, window, or frame. Each browsing context has a specific origin, the origin of the active document, and a history that lists all the displayed documents in order. Communication between browsing contexts is restricted. ‡

Buffer

A storage in physical memory used to temporarily store data while it is being transferred from one place to another. ‡

Bug

An error, flaw, or fault in a computer program or system that causes it to produce an incorrect or unexpected result, or to behave in unintended ways. Most bugs arise from mistakes and errors made in either a program's source code or its design. †

Bug tracking system

A software application that keeps track of reported software bugs in software development projects. It may be regarded as a type of issue tracking system. Many bug tracking systems allow

end users to enter bug reports directly. Other systems are used only internally in a company or organization doing software development. Typically, bug tracking systems are integrated with other project management software. A bug tracking system is usually a necessary component of a professional software development infrastructure. †

Bugfix

→ Patch

Bugzilla

A web-based general-purpose bug tracking system and testing tool originally developed and used by the Mozilla project. Bugzilla was first released in 1998 by Netscape. † i bugzilla.org

Build Verification Test

→ Smoke testing

Bulletin Board Code

→ BBCode

Bundling

The process of dynamically or statically merging (bundling) several files, notably JavaScript modules, for output to a client or a server. Bundling reduces the number of files and requests to be delivered to a client and thus helps improve performance.

Bushnell's Law

An aphorism attributed to Atari founder Nolan Bushnell, on the subject of video game design: “All the best games are easy to learn and difficult to master. They should reward the first quarter and the hundredth.” This is also referred to with the sentence “easy to learn, hard to master.” †

BVT

→ Build Verification Test

BYOL

→ Bring Your Own License

Byte Order Mark

A particular use of a special Unicode character, U+FEFF BYTE ORDER MARK, whose appearance as a magic number at the start of a text stream can signal several things to a program reading the text: the byte order, or endianness, of the text stream in the cases of 16-bit and 32-bit encodings; the fact that the text stream's encoding is Unicode, to a high level of confidence; or which Unicode character encoding is used. †

Bytecode

A form of instruction set designed for efficient execution by a software interpreter. Unlike human-readable source code, bytecodes are compact numeric codes, constants, and references (normally numeric addresses) that encode the result of compiler parsing and performing semantic analysis of things like type, scope, and nesting depths of program objects. The name “bytecode” stems from instruction sets that have one-byte opcodes followed by optional parameters. †



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

C

CA → Certificate Authority

→ Confidentiality Agreement

Cache

A hardware or software component that stores data so that future requests for that data can be served faster. The data stored in a cache might be the result of an earlier computation or a copy of data stored elsewhere. A cache hit occurs when the requested data can be found in a cache, while a cache miss occurs when it cannot. Cache hits are served by reading data from the cache, which is faster than recomputing a result or reading from a slower data store. †

Cache busting

A type of HTTP flood attack that uses query variations to get around caching. Instead of returning results from the cache, other servers must be contacted which increases their load to potentially overwhelm them.

Cache eviction

The automatically or manually requested removal of old, unused, or large data from a cache.

Cache partitioning

The dividing and assigning of cache space to different system or application tasks, in order to improve security (as with browser cache partitioning) or performance.

Cache poisoning

→ DNS spoofing

California Consumer Privacy Act

A state statute intended to enhance privacy rights and consumer protection for residents of California, United States. The bill was passed in 2018, amending the California Civil Code. The intentions of the CCPA are to provide California residents with the right to know what personal data is being collected about them; to know whether their personal data is sold or disclosed and to whom; to say no to the sale of personal data; to access their personal data; to request a business to delete personal information about a consumer collected from that consumer; and not to be discriminated against for exercising their privacy rights. †

Call stack

A mechanism for an interpreter (like the JavaScript interpreter in a web browser) to keep track of its place in a script that calls multiple functions—what function is currently being run and what functions are called from within that function, etc. ‡

Call to Action

A marketing term used extensively in advertising and selling. It refers to any device designed to prompt an immediate response or encourage an immediate sale. A CTA most often refers to the use of words or phrases that can be incorporated into sales scripts, advertising messages or web pages that encourage consumers to take prompt action. †

Callback

Executable code that is provided as an argument to other code that executes—calls back—that argument immediately (synchronous callback) or at a later time (asynchronous callback). †

Callback queue

A queue of messages (functions) that are processed in a “first in, first out” order (FIFO) by the JavaScript event loop.

Camel case

The practice of writing phrases such that each word or abbreviation in the middle of the phrase begins with a capital letter, with no intervening spaces or punctuation. Common examples include “iPhone” and “eBay.” Camel case is also sometimes used in online usernames such as “johnSmith.” In programming, camel case is often used for variable names. †

Camino

A discontinued GUI-based web browser based on Mozilla’s Gecko layout engine, specifically designed for the OS X operating system. In place of an XUL-based user interface used by most Mozilla-based applications, Camino used Mac-native Cocoa APIs. In 2013, the Camino Project stopped the development of the browser. †

Canary

Software that is only released to a small group of users, making it easy to roll it back in case of serious defects. The name comes from canaries that were once used in coal mines to warn of dangerous levels of carbon monoxide.

Candidate Recommendation

The specification-testing phase of a World Wide Web Consortium (W3C) specification (also known as a recommendation).

Canonical equivalence

The assuming of code point sequences to have the same appearance and meaning when printed or displayed. †

Canonical link

An HTML element marked `rel=canonical` that helps webmasters prevent duplicate content issues in search engine optimization by specifying the “canonical” or “preferred” version of a web page. †

Canonical Name

A type of resource record in the Domain Name System (DNS) which maps one domain name (an alias) to another (the canonical name). †

Canvas

A container, the HTML `canvas` element, that allows for dynamic, scriptable rendering of 2D and 3D shapes and bitmap images by providing an empty graphic zone on which specific JavaScript APIs can draw (such as Canvas 2D or WebGL). ‡

CAP Theorem

A theoretical computer science theorem that states that it is impossible for a distributed data store to simultaneously provide more than two out of the following three guarantees: 1) Consistency: Every read receives the most recent write or an error. 2) Availability: Every request receives a (non-error) response, without the guarantee that it contains the most recent write. 3) Partition tolerance: The system continues to operate despite an arbitrary number

of messages being dropped (or delayed) by the network between nodes. The CAP Theorem implies that in the presence of a network partition, one has to choose between consistency and availability. †

CAPTCHA

A type of challenge-response test used in computing to determine whether the user is human. The term stands for “completely automated public Turing test to tell computers and humans apart” and was coined in 2003 by Luis von Ahn, Manuel Blum, Nicholas J. Hopper, and John Langford. †

Card sorting

A method that aids the design or evaluation of the information architecture of a website. Card sorting is usually performed with groups, with attendees organizing topics into categories or folksonomies.

Caret

A grapheme—“^”, “⌘”, “⌘”, or “⌘”—with several uses, including as a proofreading mark, as a special character in programming languages, as an escape character, or for estimation. †

Carousel

A slideshow-like design element for web pages. A carousel allows focus on one unit of content and media while providing access to similar units (by some way of carousel navigation).

Cascade

The order by which declarations are applied in CSS: 1) per target media type; 2) per importance and origin (from user agent to important user declarations); 3) by specificity; and 4) by order in which the declaration was specified (with all having the same weight, origin, and specificity, the latest declaration prevails).

Cascading HTML Style Sheets

A style sheet language proposal drafted in 1994 by Håkon Wium Lie. i w3.org/People/howcome/p/cascade

Cascading Style Sheets

A style sheet language that allows to manage the presentation of markup languages like HTML or XML. The first final specification of CSS was published in 1996 by Håkon Wium Lie and Bert Bos. i w3.org/Style/CSS

Case

In engineering, as *use case*, a list of actions or event steps typically defining the interactions between a role (known in UML as an actor) and a system to achieve a goal. The actor can be a human or other external system. In systems engineering, use cases are used at a higher level than within software engineering, often representing missions or stakeholder goals. †

In programming, a selection mechanism to allow a variable to change the flow of a program. †

In typography, as *letter case*, the distinction between the letters that are in larger upper case (also uppercase, capital letters, capitals, caps, large letters, or more formally majuscule) and smaller lower case (also lowercase, small letters, or more formally minuscule) in the written representation of certain languages. †

catch

→ try...catch

CBD

→ Component-Based Development

CBSE

→ Component-Based Software Engineering

CC/PP

→ Composite Capability/Preference Profiles

CCPA

→ California Consumer Privacy Act

CCT

→ Chrome Custom Tabs

ccTLD

→ Country code top-level domain

CD

→ Corporate Design

→ Continuous Delivery

→ Continuous Deployment

CDATA

→ Character Data

CDN

→ Content Delivery Network

CDP

→ Chrome DevTools Protocol

CERT

A certificate resource record in the Domain Name System (DNS). †

Certificate

An electronic document used to prove the ownership of a public key. The certificate includes information about the key, information about the identity of its owner (called the subject), and the digital signature of an entity that has verified the certificate's contents (called the issuer).

†

Certificate Authority

An entity that issues digital certificates. A digital certificate certifies the ownership of a public key by the named subject of the certificate. This allows others to rely upon signatures or on assertions made about the private key that corresponds to the certified public key. A CA acts as a trusted third party, trusted both by the subject (owner) of the certificate and by the party relying upon the certificate. The format of these certificates is specified by the X.509 standard. One particularly common use for certificate authorities is to sign certificates used in HTTPS, the secure browsing protocol for the World Wide Web. †

CES

→ Customer Effort Score

CFML

→ ColdFusion Markup Language

CGI

→ Common Gateway Interface

Chaining

The calling of several methods after another on an object.

Change list

The set of changes made in a single commit. This can also represent a sequential view of the source code, allowing the examination of source as of any particular changelist ID. †

Change set

→ Change list

Changeset

A method to handle multi-package changes and versions. i github.com/atlassian/changesets

Channel messaging

An API described by the HTML specification that enables independent pieces of code (e.g., scripts in different browsing contexts) to communicate directly. Channel messaging works through two-way channels (or pipes) with a port at each end. ‡

Chaos engineering

The discipline of experimenting on a software system in production in order to build confidence in the system's capability to withstand turbulent and unexpected conditions. Chaos engineering can be used to achieve resilience against infrastructure, network, and application failures.

†

Character

An encoded symbol that maps to a glyph.

Character Data

A concept used for distinct but related purposes in the markup languages SGML and XML. "CDATA" indicates that a certain portion of the document is general character data, rather than non-character data or character data with a more specific, limited structure. †

Character encoding

A mapping of code points to characters, like UTF-8.

Character entity reference

A character reference that refers to a character by the name of an entity which has the desired character as its replacement text. The entity must either be predefined (built into the markup language) or explicitly declared in a document type definition (DTD). The format is the same as for any entity reference: &name;, where "name" is the case-sensitive name of the entity. †

Character reference

→ Character entity reference

→ Numeric character reference

Character set

→ Character encoding

Charset

→ Character encoding

CheiRank

An eigenvector with a maximal real eigenvalue of the Google matrix G^* constructed for a directed network with the inverted directions of links. CheiRank is similar to the PageRank vector, which ranks the network nodes in average proportionally to a number of incoming

links being the maximal eigenvector of the Google matrix G with a given initial direction of links. Due to inversion of link directions the CheiRank ranks the network nodes in average proportionally to a number of outgoing links. †

Chrome

A cross-platform web browser, based on the Chromium browser project. Chrome was released in 2008 by Google. i google.com/chrome

The graphical elements of a web browser, like title, address, and status bar as well as navigation elements.

Chrome Custom Tabs

A Chrome feature that allows native apps to invoke the Chrome browser with customized actions, toolbars, and animations.

Chrome DevTools

A set of web developer tools built directly into the Chrome web browser. i is.gd/TsOXbb

Chrome DevTools Protocol

A protocol to “instrument, inspect, debug, and profile” Chromium, Chrome, and other Blink-based browsers. i is.gd/a55qQ3

Chrome OS

A Linux kernel-based operating system designed by Google. Chrome OS is derived from the free software Chromium OS and uses the Google Chrome web browser as its principal user interface. Google announced Chrome OS in 2009, conceiving it as an operating system in which both applications and user data reside in the cloud—hence Chrome OS primarily runs web applications. Chrome OS is only available pre-installed on hardware from Google manufacturing partners, but there are unofficial methods that allow it to be installed in other equipment. † i google.com/chromebook/chrome-os

ChromeVox

A screen reader for Chrome OS as well as the Chrome web browser developed by Google. i chromevox.com

Chromium

A Google-developed project whose source code can be compiled into a web browser. Google’s Chrome browser is based on the Chromium code, as are several other browsers, including Edge, Opera, and Silk. Other parties have compiled the code as-is, releasing their browsers under the Chromium name. † i chromium.org

CHSS

→ Cascading HTML Style Sheets

CI → Continuous Integration

→ Corporate Identity

CIDR

→ Classless Inter-Domain Routing

Cipher

An algorithm for encryption or decryption. To encipher or encode is to convert information into cipher or code. †

CircleCI

A continuous integration and delivery platform. CircleCI was founded in 2011. i circleci.com

CL → Change list

Class

An extensible program code template for creating objects, providing initial values for state (member variables), and implementations of behavior (member functions or methods). In many languages, the class name is used as the name for the class (the template itself), the name for the default constructor of the class (a subroutine that creates objects), and as the type of objects generated by instantiating the class. †

In web development, the (value of the) `class` attribute, usually used as a selector for styling purposes.

Class variable

Any variable declared with the `static` modifier of which a single copy exists, regardless of how many instances of the class there are. †

Classitis

In software development, a negative outcome of the disputed goal to work with many small classes.

In web development, the excessive use of `class` attributes and values.

Classless Inter-Domain Routing

A method for allocating IP addresses and for IP routing. The Internet Engineering Task Force (IETF) introduced CIDR in 1993 to replace the previous classful network addressing architecture on the Internet. The goal of CIDR was to slow the growth of routing tables on routers across the Internet, and to help slow the rapid exhaustion of IPv4 addresses. †

Clearfix

A name for a variety of float-clearing techniques that may (when CSS-only) or may not (as with relying on presentational helper classes) meet development best practices. i is.gd/ywDpA3

CLI → Command-Line Interface

Click

A physical or emulated interaction with a pointing device.

Click-through rate

The ratio of users who click on a specific link to the number of total users who view a page, email, or advertisement. It is commonly used to measure the success of an online advertising campaign for a particular website as well as the effectiveness of email campaigns. †

Clickjacking

A malicious technique of tricking a user into clicking on something different from what the user perceives, thus potentially revealing confidential information or allowing others to take control of the user's computer. †

Client

A piece of computer hardware or software that accesses a service made available by a server. The server is often (but not always) on another computer system, in which case the client accesses the service by way of a network. †

Client Hints

A set of HTTP request header fields for proactive content negotiation allowing clients to indicate a list of device and agent specific preferences. Client Hints enable automated delivery of optimized assets, like the automatic negotiation of image DPR resolution. ‡ is.gd/iuXEbz

Client side

Operations on the client as opposed to the server side in a client-server relationship. ‡

Client-Side Rendering

A technique in which a page is rendered on the client side, as opposed to the server side (as with SSR). On the first request, only a skeleton (a minimal HTML document) is returned by the server. It is then populated on the client side, usually via JavaScript, to turn it into a fully rendered page.

Cloaking

A search engine optimization (SEO) technique in which the content presented to the search engine spider is different from that presented to a user's browser. This can be done by delivering content based on the IP addresses or the User-Agent HTTP header of the user requesting the page. When a user is identified as a search engine spider, a server-side script delivers a different version of the web page, one that contains content not present on the visible page, or that is present but not searchable. The purpose of cloaking is to deceive search engines so they display the page when it would not otherwise be displayed (black hat SEO). However, it can also be a functional (though antiquated) technique for informing search engines of content they would not otherwise be able to locate. ‡

Clojure

A dynamic and functional dialect of the Lisp programming language on the Java platform. Like other Lisp dialects, Clojure treats code as data and has a Lisp macro system. The development process is community-driven, overseen by Rich Hickey as a "benevolent dictator for life" (BDFL). Clojure advocates immutability and immutable data structures and encourages programmers to be explicit about managing identity and its states. ‡ [i clojure.org](https://clojure.org)

Clone detection

The automated process of finding duplication in source code. ‡

Closure

A technique for implementing lexically scoped name binding in a language with first-class functions. Operationally, a closure is a record storing a function together with an environment. The environment is a mapping associating each free variable of the function (variables that are used locally, but defined in an enclosing scope) with the value or reference to which the name was bound when the closure was created. Unlike a plain function, a closure allows the function to access those captured variables through the closure's copies of their values or references, even when the function is invoked outside their scope. ‡

Cloud

→ Cloud computing

→ Cloud storage

Cloud computing

The on-demand availability of computer system resources, especially data storage and computing power, without direct active management by the user. The term is generally used to describe

data centers available to many users over the Internet. Large clouds, predominant today, often have functions distributed over multiple locations from central servers. If the connection to the user is relatively close, it may be designated an edge server. †

Cloud storage

A model of computer data storage in which the digital data is stored in logical pools. The physical storage spans multiple servers (sometimes in multiple locations), and the physical environment is typically owned and managed by a hosting company. These cloud storage providers are responsible for keeping the data available and accessible, and the physical environment protected and running. †

CLS

→ Cumulative Layout Shift

Cluster

A set of loosely or tightly connected computers that work together so that, in many respects, they can be viewed as a single system. Unlike grid computers, computer clusters have each node set to perform the same task, controlled and scheduled by software. †

CMP

→ Consent Management Platform

CMS

→ Content Management System

CMYK

→ Cyan, Magenta, Yellow, and Key

CNAME

→ Canonical Name

CNAME cloaking

The disguising of third-party resources as first-party resources through the modification of domain CNAME entries. CNAME cloaking is used to get around tracking protections.

Coalescing

The merging of two adjacent free blocks of memory, which is relevant as when an application frees memory, gaps can fall in the memory segment that the application uses. †

A way to provide a default value if an operand is `null` or `undefined`. This so-called null or nullish coalescing allows a default value to be defined for cases where a more specific value is not available. †

CoC

→ Code of Conduct

→ Convention over Configuration

Code

The set of instructions forming a computer program which is executed by a computer. It is one of two components of the software which runs on computer hardware, the other being the data. †

Code coverage

A measure used to describe the degree to which the source code of a program is executed when a particular test suite runs. A program with high test coverage, measured as a percentage, has

had more of its source code executed during testing, which suggests it has a lower chance of containing undetected software bugs compared to a program with low test coverage. Many different metrics can be used to calculate test coverage; some of the most basic are the percentage of program subroutines and the percentage of program statements called during execution of the test suite. †

Code debt

→ Technical debt

Code golf

A type of recreational computer programming competition in which participants strive to achieve the shortest possible source code that implements a certain algorithm. Playing code golf is known as “golf scripting.” Code golf tournaments may also be named with the programming language used (for example, Perl golf). †

Code of Conduct

A set of rules outlining the norms, rules, and responsibilities of, or proper practices for, an individual. †

Code point

Any of the numerical values that make up the code space for a character encoding. Many code points represent single characters but they can also have other meanings, such as for formatting. †

Code refactoring

→ Refactoring

Code review

A software quality assurance activity in which one or several people check a program mainly by viewing and reading parts of its source code, and they do so after implementation or as an interruption of implementation. At least one of the persons must not be the code’s author. The persons performing the checking, excluding the author, are called reviewers. †

Code smell

Any characteristic in the source code of a program that possibly indicates a deeper problem. Determining what is and is not a code smell is subjective, and varies by language, development methodology, and developer. The term “code smell” was popularized in the late 1990s by Kent Beck. †

Code splitting

The splitting of code into various bundles or components which can then be loaded on demand or in parallel. While the total amount of code is the same (and perhaps even a little larger), the amount of code needed during initial load can be reduced. ‡

Codeline

→ Branch

CodePen

An online community for testing and showcasing user-created HTML, CSS, and JavaScript code snippets. It functions as a code editor and learning environment, where developers can create code snippets, called pens, test, and share them. CodePen was founded in 2012. † i codepen.io

Coding by Convention

→ Convention over Configuration

Coding guidelines

Rules for how code is to be designed and formatted. Coding guidelines are usually established in organizations with several developers and development teams.

COEP

→ Cross-Origin-Embedder-Policy

CoffeeScript

A programming language that compiles to JavaScript. It adds syntactic sugar inspired by Ruby, Python, and Haskell in an effort to enhance JavaScript's brevity and readability. Specific additional features include list comprehension and destructuring assignment. † [i coffeescript.org](http://coffeescript.org)

Cognitive disability

As disabilities affecting cognitive ability, a concept encompassing various intellectual or cognitive deficits, including intellectual disability (formerly called mental retardation), deficits too mild to properly qualify as intellectual disability, various specific conditions (such as specific learning disability), and problems acquired later in life through acquired brain injuries or neurodegenerative diseases like dementia. Many of these disabilities have an effect on memory, which is the ability to recall what has been learned over time. †

Cold data

Rarely accessed data.

ColdFusion

A commercial rapid web application development computing platform created in 1995 by J.J. Allaire. (The programming language used with the platform is also commonly called ColdFusion, though is more accurately known as CFML.) ColdFusion was originally designed to make it easier to connect simple HTML pages to a database. By version 2 (1996), it became a full platform that included an IDE in addition to a full scripting language. † [i is.gd/r6E53v](http://is.gd/r6E53v)

ColdFusion Markup Language

A scripting language for web development that runs on the Java virtual machine, the .NET framework, and Google App Engine. Multiple implementations of CFML engines are available, including Adobe ColdFusion, Lucee, New Atlanta BlueDragon, Railo, and Open BlueDragon. †

Collapsed margin

→ Margin collapsing

Color blindness

The decreased ability to see color or differences in color. 8% of men and 0.5% of women have some form of color blindness. The most common forms of color blindness are deuteranomaly, deuteranopia, protanomaly, and protanopia. †

Color circle

→ Color wheel

Color management

The controlled conversion between the color representations of various devices, such as image scanners, digital cameras, monitors, TV screens, film printers, computer printers, offset presses, and corresponding media. The primary goal of color management is to obtain a good match across color devices; for example, the colors of one frame of a video should appear the same on

a computer LCD monitor, on a plasma TV screen, and as a printed poster. Color management helps to achieve the same appearance on all of these devices, provided the devices are capable of delivering the needed color intensities. Color management cannot guarantee identical color reproduction, as this is rarely possible, but it can at least give more control over any changes which may occur. †

Color scheme

The choice of colors used in design to create style and appeal. Colors that create an aesthetic feeling when used together will commonly accompany each other in color schemes. †

Color wheel

An abstract illustrative organization of color hues around a circle, which shows the relationships between primary colors, secondary colors, tertiary colors, etc. Some sources use the terms “color wheel” and “color circle” interchangeably; however, one term or the other may be more prevalent in certain fields. †

Comma-Separated Values

As a CSV file, a delimited text file that uses a comma to separate values. Each line of the file is a data record. Each record consists of one or more fields, separated by commas. The use of the comma as a field separator is the source of the name for this file format. A CSV file typically stores tabular data (numbers and text) in plain-text, in which case each line will have the same number of fields. The CSV file format is not fully standardized. †

Command

A directive to a computer program to perform a specific task. It may be issued via a command-line interface, such as a shell, or as input to a network service as part of a network protocol, or as an event in a graphical user interface triggered by the user selecting an option in a menu. †

Command-Line Interface

An interface processing commands to a computer program in the form of lines of text. Operating systems implement command-line interfaces in a shell for interactive access to operating system functions or services. †

Command-Query Separation

A principle of imperative computer programming. CQS was devised by Bertrand Meyer as part of his pioneering work on the Eiffel programming language. The principle states that every method should either be a command that performs an action, or a query that returns data to the caller, but not both. In other words, “Asking a question should not change the answer.” More formally, methods should return a value only if they are referentially transparent and hence possess no side effects. †

Comment

A developer-readable explanation or annotation in the source code of a computer program. Comments are added with the purpose of making the source code easier for humans to understand, and are generally ignored by compilers and interpreters. The syntax of comments in various programming languages varies considerably. †

Common Gateway Interface

An interface specification for web servers to execute programs that execute like console applications (also called command-line interface programs) running on a server that generates web pages dynamically. Such programs are known as CGI scripts, or simply as CGIs. The

specifics of how the script is executed by the server are determined by the server. In the common case, a CGI script executes at the time a request is made and generates HTML. †

Common Vulnerabilities and Exposures

A system that provides a reference method for publicly known information security vulnerabilities and exposures. The United States' National Cybersecurity FFRDC, operated by The Mitre Corporation, maintains the system, with funding from the U.S. National Cyber Security Division of the U.S. Department of Homeland Security. The CVE system was officially launched for the public in 1999. † i cve.mitre.org

Common Vulnerability Scoring System

An industry standard for assessing the severity of computer system security vulnerabilities. CVSS assigns severity scores to vulnerabilities, allowing responders to prioritize responses and resources according to threat. Scores are calculated based on a formula that depends on several metrics that approximate the ease and impact of an exploit. Scores range from 0 to 10, with 10 being the most severe. CVSS version 1 (CVSSv1) was released in 2005. † i first.org/cvss

CommonJS

A discontinued project with the goal to establish conventions on a module ecosystem for JavaScript outside of the web browser. The primary reason for its creation was a major lack of commonly accepted form of JavaScript scripts module units which could be reusable in environments different from that provided by a conventional web browser. CommonJS maintains specifications (including drafts) and a list of implementations. Work on CommonJS started in 2009, and ended in 2014. †

CommonMark

A plain-text format compatible with Markdown. CommonMark was started as a standardization effort in 2012. i commonmark.org

Community of Practice

A group of people who share a craft or a profession. The concept was first proposed in 1991 by Jean Lave and Etienne Wenger. A CoP can evolve naturally because of the members' common interest in a particular domain or area, or it can be created deliberately with the goal of gaining knowledge related to a specific field. It is through the process of sharing information and experiences with the group that members learn from each other, and have an opportunity to develop personally and professionally. CoPs can exist in physical settings, for example, a lunchroom at work, a field setting, a factory floor, or elsewhere in the environment, but members of CoPs do not have to be co-located. †

Compared to what?

A question data graphics must be able to answer, according to distinguished information design expert Edward Tufte.

Compass

A CSS authoring framework. i compass-style.org

Compatibility

The ability of software to run on a particular architecture or operating system, and the ability of hardware to work with a particular CPU architecture, bus, motherboard, or operating system. Compatible software and hardware may not always run at its highest stated performance. †

Compatibility equivalence

The assuming of code point sequences to have possibly distinct appearances, but the same meaning in some contexts. †

Compatibility mode

A software mechanism in which a software either emulates an older version of software, or mimics another operating system in order to allow older or incompatible software or files to remain compatible with the computer's newer hardware or software. Examples of software using this mode are operating systems and Internet Explorer. †

Compiler

A computer program that translates computer code written in one programming language (the source language) into another language (the target language). The name "compiler" is primarily used for programs that translate source code from a high-level programming language to a lower level language (e.g., assembly language, object code, or machine code) to create an executable program. †

Compiling

The translating of computer code written in one programming language into another language. †

Complementary colors

Pairs of colors which, when combined or mixed, cancel each other out (lose hue) by producing a grayscale color like white or black. When placed next to each other, they create the strongest contrast for those two colors. Complementary colors may also be called opposite colors. Modern color theory uses either the RGB additive color model or the CMY subtractive color model, and in these, the complementary pairs are red-cyan, green-magenta, and blue-yellow. In the traditional RYB color model, the complementary color pairs are red-green, yellow-purple, and blue-orange. Opponent process theory suggests that the most contrasting color pairs are red-green and blue-yellow. †

Component

A software package, a web service, a web resource, or a module that encapsulates a set of related functions or data. All system processes are placed into separate components so that all of the data and functions inside each component are semantically related (just as with the contents of classes). Because of this principle, it is often said that components are modular and cohesive. †

Component library

→ Pattern library

Component-Based Development

→ Component-Based Software Engineering

Component-Based Software Engineering

A branch of software engineering that emphasizes the separation of concerns with respect to the wide-ranging functionality available throughout a given software system. It is a reuse-based approach to defining, implementing, and composing loosely coupled independent components into systems. †

Composite Capability/Preference Profiles

A specification for defining capabilities and preferences of user agents, establishing a delivery

context that can be used to guide the process of tailoring content. CC/PP is a vocabulary extension of the Resource Description Framework (RDF). † i w3.org/TR/CCPP-struct-vocab2

Compression

The process of encoding information using fewer bits than the original representation. Any particular compression is either lossy or lossless. Lossless compression reduces bits by identifying and eliminating statistical redundancy. No information is lost in lossless compression. Lossy compression reduces bits by removing unnecessary or less important information. Typically, a device that performs data compression is referred to as an encoder, and one that performs the reversal of the process (decompression) as a decoder. †

Computer programming

→ Programming

Concurrency

The ability of different parts or units of a program, algorithm, or problem to be executed out-of-order or in partial order, without affecting the final outcome. This allows for parallel execution of the concurrent units, which can significantly improve overall speed of the execution in multi-processor and multi-core systems. †

Concurrent Versioning System

→ Concurrent Versions System

Concurrent Versions System

A client-server version control system. CVS was developed in 1986 by Dick Grune. † i savannah.nongnu.org/projects/cvs

Conditional

A feature of a programming language which perform different computations or actions depending on whether a programmer-specified Boolean condition evaluates to true or false. Apart from the case of branch predication, this is achieved by selectively altering the control flow based on some condition. In imperative programming languages, the term “conditional statement” is usually used, whereas in functional programming, “conditional expression” or “conditional construct” are preferred. †

Conditional Comments

Conditional statements in HTML, interpreted by Microsoft Internet Explorer 5–9. Conditional comments can be used to provide and hide code to and from Internet Explorer. Conditional comments are no longer supported in Internet Explorer 10 and 11. †

Cone of Uncertainty

A model for the evolution of the amount of best case uncertainty during a project. At the beginning of a project, comparatively little is known about the product or work results, and so estimates are subject to large uncertainty. As more research and development is done, more information is learned about the project, and the uncertainty then tends to decrease. The change in uncertainty makes for the shape of a cone. †

Confidence testing

→ Smoke testing

Confidentiality Agreement

→ Non-Disclosure Agreement

Conflict of interest

A situation in which a person or organization is involved in multiple interests, financial or otherwise, and serving one interest could involve working against another. Typically, this relates to situations in which the personal interest of an individual or organization might adversely affect a duty owed to make decisions for the benefit of a third party. †

Connection draining

In load balancing, the allowing of existing requests (in-progress, in-flight) to complete while no new requests are being sent to the respective machine.

Consent Management Platform

A platform that requests, stores, and manages user consent. A CMP helps ensure the privacy of user data in compliance with regulation like the European Union's GDPR or California's CCPA/CPRA.

Consistency

In logic, a theory that does not entail a contradiction. †

Console

A computer program designed to be used via a text-only computer interface, such as a text terminal, the command-line interface of some operating systems (Unix, DOS, etc.), or the text-based interface included with most graphical user interface (GUI) operating systems, such as the Win32 console in Microsoft Windows, the Terminal in macOS, and xterm in Unix. A user typically interacts with a console application using only a keyboard and display screen. †

Constant

A value that cannot be altered by the program during normal execution, i.e., the value is constant. When associated with an identifier, a constant is said to be "named," although the terms "constant" and "named constant" are often used interchangeably. This is contrasted with a variable. †

Constructor

A special type of subroutine called to create an object. It prepares the new object for use, often accepting arguments that the constructor uses to set required member variables. †

Container

An HTML element that contains other elements.

Containerization

An operating system paradigm in which the kernel allows the existence of multiple isolated user space instances. Such instances, called containers (Solaris, Docker), zones (Solaris), virtual private servers (OpenVZ), partitions, virtual environments (VEs), virtual kernels (DragonFly BSD), or jails (FreeBSD jail or chroot jail) may look like actual computers from the point of view of programs running in them. A computer program running on an ordinary operating system can see all resources (connected devices, files and folders, network shares, CPU power, quantifiable hardware capabilities) of that computer. However, programs running inside of a container can only see the container's contents and devices assigned to the container. Containerization is used to securely allocate finite hardware resources among a large number of mutually-distrusting users, to consolidate server hardware by moving services on separate hosts into containers on the one server, or to separate several programs to separate containers for improved security, hardware independence, and added resource management features. †

Containing block

The block (element) in which a box resides.

Content

The information and experiences that are directed toward an end user or audience. Content is “something that is to be expressed through some medium, as speech, writing, or any of various arts.” Content can be delivered via many different media including the Internet, cinema, television, radio, smartphones, audio CDs, books, ebooks, magazines, and live events, such as speeches, conferences, and stage performances. †

→ Content box

Content box

→ Box

Content category

A category that HTML puts elements in. The main categories are metadata content, flow content, sectioning content, heading content, phrasing content, embedded content, and interactive content.

Content Delivery Network

A geographically distributed network of proxy servers and their data centers that has the goal to provide high availability and high performance by distributing the service spatially relative to end users. CDNs came into existence in the late 1990s as a means for alleviating performance bottlenecks of the Internet. They are a layer in the Internet ecosystem. †

Content Management System

A software application that can be used to manage the creation and modification of digital content. CMSs are typically used for Enterprise Content Management (ECM) and Web Content Management (WCM). ECM typically supports multiple users in a collaborative environment by integrating document management, digital asset management and record retention. Alternatively, WCM is the collaborative authoring for websites and may include text and embed graphics, photos, video, audio, maps, and program code that display content and interact with the user. †

Content negotiation

Server- or agent-driven mechanisms that allow to serve different versions of a document (or more generally, representations of a resource) at the same URL, so that user agents can specify which version fits their capabilities the best. Examples include requesting and receiving documents in a preferred language, or media files in a particular format. †

Content network

A network of websites that uses and is accessible through a particular advertising platform, that is, that can be advertised on through the respective ad platform.

Content optimization

The process of improving content, making it as interesting as possible for users and search engines, and increasing its reach.

Content Security Policy

A computer security standard introduced to prevent cross-site scripting (XSS), clickjacking, and other code injection attacks resulting from execution of malicious content in the trusted

web page context. CSP provides a standard method for website owners to declare approved origins of content that browsers should be allowed to load on that website—covered types are JavaScript, CSS, HTML frames, web workers, fonts, images, embeddable objects such as Java applets, ActiveX, audio and video files, and other HTML features. † i w3.org/TR/CSP

Content sniffing

→ MIME sniffing

Context switch

The process of storing the state of a process or thread, so that it can be restored and resume execution at a later point. Context switching allows multiple processes to share a single CPU, and is an essential feature of a multi-tasking operating system. The precise meaning of the phrase “context switch” varies. In the multi-tasking context, it refers to the process of storing the system state for one task, so that task can be paused and another task resumed. A context switch can also occur as the result of an interrupt, such as when a task needs to access disk storage, freeing up CPU time for other tasks. Some operating systems also require a context switch to move between user mode and kernel mode tasks. The process of context switching can have a negative impact on system performance. †

Continuous Delivery

A software engineering approach in which teams produce software in short cycles, ensuring that the software can be reliably released at any time and, when releasing the software, doing so manually. CD aims at building, testing, and releasing software with greater speed and frequency, and helps reduce the cost, time, and risk of delivering changes by allowing for more incremental updates to applications in production. A straightforward and repeatable deployment process is important for continuous delivery. †

Continuous Deployment

A software engineering approach in which software functionalities are delivered frequently through automated deployments. †

Continuous Integration

The practice of merging all developers’ working copies to a shared mainline (version control) several times a day. †

Continuous Media

Data for which there is a timing relationship between source and destination. The most common examples of continuous media are audio and motion video. Continuous media can be real-time (interactive), where there is a “tight” timing relationship between source and sink, or streaming (playback), where the relationship is less strict. ‡

Contrast

The difference in appearance of two or more parts of a field seen simultaneously or successively (hence: brightness contrast, lightness contrast, color contrast, simultaneous contrast, successive contrast, etc.). Visual information is always contained in some kind of visual contrast, thus contrast is an essential performance (and accessibility) feature of electronic visual displays. †

Control flow

The order in which individual statements, instructions, or function calls of an imperative program are executed or evaluated. †

Convention over Configuration

A software design paradigm used by software frameworks that attempts to decrease the number of decisions that a developer using the framework is required to make without necessarily losing flexibility. The concept was introduced by David Heinemeier Hansson to describe the philosophy of the Ruby on Rails web framework, but is related to earlier ideas like the concept of “sensible defaults” and the principle of least astonishment in user interface design. The phrase essentially means a developer only needs to specify unconventional aspects of the application.

†

Conversion

In engineering, the converting of data from one format to another.

In marketing, the converting of visitors to customers (or to visitors who meet another conversion goal).

Conway’s Law

The adage that organizations design systems that mirror their own communication structure. Conway’s Law is named after computer programmer Melvin Conway, who introduced the idea in 1967. His original wording was: “Any organization that designs a system (defined broadly) will produce a design whose structure is a copy of the organization’s communication structure.”

†

Cookie

A small piece of data sent from a website and stored on a user’s computer by the user’s web browser while the user is browsing. Cookies were designed to be a reliable mechanism for websites to remember stateful information or to record the user’s browsing activity. They can also be used to remember arbitrary pieces of information that the user previously entered. Cookies perform essential functions in the modern Web. Perhaps most importantly, authentication cookies are the most common method used by web servers to know whether a user is logged in or not, and which account they are logged in with. †

Cookie banner

A web page notification alerting and informing about the respective site’s use of cookies. Cookie banners are common on European websites because of European cookie regulations.

Cookie consent

The agreement to but also a term for the requirement for informing about the use of cookies (also known as a cookie consent form, or cookie banner).

Cookie hijacking

→ Session hijacking

CoP

→ Community of Practice

CORB

→ Cross-Origin Read Blocking

Core Web Vitals

→ Web Vitals

CORP

→ Cross-Origin Resource Policy

Corporate Design

The official graphical design of the logo and name of a company or institution (or government) used on letterheads, envelopes, forms, folders, brochures, etc. †

Corporate Identity

The manner in which a corporation, firm, or business enterprise presents itself to the public. The corporate identity is typically visualized by branding and with the use of trademarks, but it can also include things like product design, advertising, public relations, etc. Corporate identity is a primary goal of corporate communications, in order to maintain and build the identity to accord with and facilitate the corporate business objectives. †

CORS

→ Cross-Origin Resource Sharing

Cost-per-click

→ Pay-per-click

Country code top-level domain

An Internet top-level domain generally used or reserved for a country, sovereign state, or dependent territory identified with a country code. All ASCII ccTLD identifiers are two letters long, and all two-letter top-level domains are ccTLDs. There are 312 ccTLDs in active use totally. .cn, .tk, .de and .uk contain the highest number of domains. †

Coupling

A state in which one object uses a function of another object. Coupling also describes the degree of interdependence between software modules, as a measure of how closely connected two routines or modules are, and the strength of the relationships between modules. Coupling is usually contrasted with cohesion. Low coupling often correlates with high cohesion, and vice versa. Low coupling is often a sign of a well-structured computer system and a good design, and when combined with high cohesion, supports the general goals of high readability and maintainability. †

CPA

→ Critical path analysis

CPC

→ Cost-per-click

CPM

→ Critical path method

CQS

→ Command-Query Separation

CR → Candidate Recommendation**Craft**

A pastime or a profession that requires particular skills and knowledge of skilled work. †

CRAP

→ Create, Replicate, Append, Process

Crawler

An Internet bot that systematically browses the World Wide Web, typically for the purpose of Web indexing (web spidering). Web search engines and some other sites use Web crawling or spidering software to update their web content or indices of others sites' web content. †

Crawling

The systematic browsing of the World Wide Web for the purpose of indexing. †

Create, Read, Update, Delete

The four basic functions of persistent storage. †

Create, Replicate, Append, Process

A variation of CRUD. †

Critical CSS

The minimum of CSS needed to show a styled web page. Focus is usually on the immediately visible part of a page sitting at the top or “above the fold.” The respective CSS rules are then inlined, that is, embedded in a `style` element within the page’s head element.

Critical path

The longest stretch of dependent project activities and the time required to complete them from start to finish. †

Critical path analysis

→ Critical path

Critical path method

→ Critical path

Critical rendering path

A model for the steps needed to render a web page, and optimize its rendering. The critical rendering path includes the building of DOM (Document Object Model) and CSSOM (CSS Object Model), changes to both through the execution of JavaScript, the construction of the render tree, layout, and paint.

CRM

→ Customer Relationship Management

cron

A time-based job scheduler on Unix-like computer operating systems. Users that set up and maintain software environments use cron to schedule jobs (commands or shell scripts) to run periodically at fixed times, dates, or intervals. cron is most suitable for scheduling repetitive tasks. Scheduling one-time tasks can be accomplished using the associated at utility. cron was first released in 1975. †

Cron job

A job (command) to be executed by cron.

Crontab

A configuration file that specifies shell commands to run periodically on a given schedule. The crontab files are stored where the lists of jobs and other instructions to the cron daemon are kept. Users can have their own individual crontab files and often there is a system-wide crontab file (usually in `/etc` or a subdirectory of `/etc`) that only system administrators can edit. †

Cross-Origin Read Blocking

A security feature that helps mitigate side-channel attacks. CORB prevents the browser from delivering certain cross-origin responses to a web page, for example, when these responses would contain sensitive information.

Cross-Origin Resource Sharing

A mechanism that allows restricted resources on a web page to be requested from another

domain outside the domain from which the first resource was served. A web page may freely embed cross-origin images, style sheets, scripts, iframes, and videos. Certain “cross-domain” requests are forbidden by default by the same-origin security policy. CORS defines a way in which a browser and server can interact to determine whether it is safe to allow the cross-origin request. †

Cross-Origin Resource Policy

A policy set by the `Cross-Origin-Resource-Policy` HTTP header that lets websites and applications opt into protection against certain requests from other origins (such as those issued with elements like `<script>` and ``), to mitigate speculative side-channel as well as cross-site script inclusion attacks. CORP is an additional layer of protection beyond the default same-origin policy. ‡

Cross-Origin-Embedder-Policy

An HTTP response header preventing a document from loading cross-origin resources that do not explicitly grant the document permission (using CORP or CORS). ‡

Cross-Site Request Forgery

A type of malicious exploit of a website where unauthorized commands are transmitted from a user that the web application trusts. There are many ways in which a malicious website can transmit such commands; specially-crafted image elements, hidden forms, and JavaScript XMLHttpRequests, for example, can all work without the user’s interaction or even knowledge. Unlike cross-site scripting (XSS), which exploits the trust a user has for a particular site, CSRF exploits the trust that a site has in a user’s browser. †

Cross-Site Script Inclusion

A vulnerability which uses the circumstance that a script referenced through a `script` element is exempt from the same-origin policy, as scripts need to work across domains. An attacker may access and use what is being loaded using the respective script, and thus leaked across origins.

Cross-Site Scripting

A type of computer security vulnerability typically found in web applications. XSS enables attackers to inject client-side scripts into web pages viewed by other users. A cross-site scripting vulnerability may be used by attackers to bypass access controls such as the same-origin policy. †

Cross-Site WebSocket Hijacking

An attack similar to Cross-Site Request Forgery (CSRF), on a WebSocket handshake, which may allow read/write communication on the respective WebSocket connection. [i is.gd/cGQ4bj](https://is.gd/cGQ4bj)

CRP

→ Critical rendering path

CRUD

→ Create, Read, Update, Delete

CSCS

→ Customized Scripting in C#

CSP

→ Content Security Policy

CSR

→ Client-Side Rendering

CSRF

→ Cross-Site Request Forgery

CSS → Cascading Style Sheets

CSS framework

→ HTML/CSS framework

CSS lock

CSS code that results in a lower and an upper bound for a particular styling, like a minimum and maximum font size that is otherwise fluid. CSS locks can rely on a single declaration but may include both more declarations as well as media queries. The term “CSS lock” may have first been coined in 2016 by Tim Brown. [i is.gd/FjK3B8](https://is.gd/FjK3B8)

CSS Modules

As a CSS Module, a CSS file in which all class and animation names are by default scoped locally. [i github.com/css-modules/css-modules](https://github.com/css-modules/css-modules)

CSS Object Model

A map of all CSS selectors and relevant properties for each selector in the form of tree, with root node, sibling, descendant, child, and other relationships. The CSSOM is similar to the Document Object Model (DOM). Both of them are part of the critical rendering path which is a series of steps that must happen to properly render a website. ‡

CSS preprocessor

A program that allows to generate CSS from the preprocessor’s own unique syntax. There are many CSS preprocessors to choose from, however most CSS preprocessors add features that do not exist in pure CSS, such as mixins, selector nesting, or inheritance selectors. These features make the CSS structure more readable and easier to maintain. ‡

CSS Zen Garden

A web development resource “built to demonstrate what can be accomplished visually through CSS-based design.” Style sheets contributed by web designers and developers from around the world are used to change the visual presentation of a single HTML file, producing hundreds of different designs. Aside from reference to an external CSS file, the HTML markup itself never changes. All visual differences are the result of the CSS (and supporting imagery). CSS Zen Garden is a poster child for CSS-only redesigning. It was created in 2003 by Dave Shea. † [i csszengarden.com](https://csszengarden.com)

CSS-in-JS

A styling technique in which JavaScript is used to style components. When this JavaScript is parsed, CSS is generated (usually as a `style` element) and attached to the DOM. CSS-in-JS allows to abstract CSS to the component level itself, using JavaScript to describe styles in a declarative and maintainable way. There are multiple implementations of this concept such as styled components or JSS. † [i cssinjs.org](https://cssinjs.org)

CSS-Tricks

A popular web development online magazine and CSS resource. CSS-Tricks was founded in 2007 by Chris Coyier. [i css-tricks.com](https://css-tricks.com)

CSSOM

→ CSS Object Model

CSV

→ Comma-Separated Values

CSWSH

→ Cross-Site WebSocket Hijacking

CTA

→ Call to Action

CTR

→ Click-through rate

Cumulative Layout Shift

A metric, the so-called layout shift score, for measuring visual stability. The layout shift score is based on a multiplication of impact fraction and distance fraction. [i web.dev/cls](https://web.dev/cls)

curl

A computer software project providing a library (libcurl) and command-line tool (curl) for transferring data using various network protocols. The name stands for “Client URL,” which was first released in 1997. [† i curl.se](https://curl.se)

Currying

The technique of converting a function that takes multiple arguments into a sequence of functions that each take a single argument. [†](#)

Custom data attribute

An attribute in no namespace whose name starts with the string data-, has at least one character after the hyphen, is XML-compatible, and contains no ASCII upper alphas. Custom data attributes are intended to store custom data, state, annotations, and similar, private to the page or application, for which there are no more appropriate attributes or elements. [§](#)

Custom element

→ Autonomous custom element

→ Customized built-in element

Custom property

A CSS property that is prefixed with --, like --example-name, and whose value can be used in other declarations using the var() function. Custom properties are scoped to the element(s) they are declared on, and participate in the cascade: The value of a custom property is that from the declaration decided by the cascading algorithm. Custom properties are also known as CSS variables. [‡ i w3.org/TR/css-variables-1](https://w3.org/TR/css-variables-1)

Customer Effort Score

A customer service metric that measures the experience with a product or service. Customers document their experience on a 7-point Likert scale ranging from “Very Difficult” to “Very Easy.” The result can be used to assess how much effort is needed to use the respective product or service, and to predict further use.

Customer Relationship Management

An approach to manage a company’s interaction with current and potential customers. It uses data analysis about customers’ history with a company to improve business relationships with customers, specifically focusing on customer retention and ultimately driving sales growth. [†](#)

Customized built-in element

A type of custom element for a web component. Customized built-in elements inherit from basic HTML elements. To create a customized built-in element one has to specify which element it extends, and to use it one writes out the basic element but specifies the name of the custom element through an `is` property. ‡

Customized Scripting in C#

A basic scripting language based on C#. CSCS features no functions, methods, and Boolean values. It was presented in 2016 by Vassili Kaplan. i github.com/vassilych/cscs

Cutting the mustard

The succeeding under difficult circumstances, an expression attributed to BBC developers in the context of user agent detection.

CVE

→ Common Vulnerabilities and Exposures

CVS

→ Concurrent Versions System

CVSS

→ Common Vulnerability Scoring System

Cyan, Magenta, Yellow, and Key

As the CMYK color model, a subtractive color model used in color printing, and also used to describe the printing process itself. CMYK refers to the four ink plates used in some color printing: cyan, magenta, yellow, and key (black). The CMYK model works by partially or entirely masking colors on a lighter, usually white, background. The ink reduces the light that would otherwise be reflected. Such a model is called subtractive because inks “subtract” the colors red, green, and blue from white light. White light minus red leaves cyan, white light minus green leaves magenta, and white light minus blue leaves yellow. †

Cycle time

The amount of time between the start of work on a task to the time it is delivered.

Cyclomatic complexity

A software metric used to indicate the complexity of a program. It is a quantitative measure of the number of linearly independent paths through a program’s source code, and is computed using the control-flow graph of the program. The nodes of the graph correspond to indivisible groups of commands of a program, and a directed edge connects two nodes if the second command might be executed immediately after the first command. Cyclomatic complexity may also be applied to individual functions, modules, methods, or classes. It was developed in 1976 by Thomas J. McCabe, Sr. †



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

D

D3.js

A JavaScript library for producing dynamic, interactive data visualizations in web browsers. D3.js makes use of the widely implemented Scalable Vector Graphics (SVG), HyperText Markup Language (HTML), and Cascading Style Sheets (CSS) standards. It is the successor to the earlier Protovis framework. In contrast to many other libraries, D3.js allows great control over the final visual result. D3.js was first released in 2011. † i d3js.org

DAD

→ Disciplined Agile Delivery

Daemon

A computer program that runs as a background process, rather than being under the direct control of an interactive user. Traditionally, the process names of a daemon end with the letter “d”, for clarification that the process is in fact a daemon, and for differentiation between a daemon and a normal computer program. For example, syslogd is a daemon that implements system logging, and sshd is a daemon that serves incoming SSH connections. †

Daily Active Users

→ Active Users

Daily Scrum

A daily Scrum event, time-boxed to 15 minutes, in which a Scrum Development Team plans the next development day. A Daily Scrum is not necessarily a “stand-up.”

DAM

→ Digital Asset Management

Dark Mode

A color scheme that uses light-colored text, icons, and graphical user interface elements on a dark background. Light on dark color schemes require less energy to display on the most common display technologies. †

Dark pattern

A user interface that has been crafted to trick users into doing things. Another definition of a dark pattern is an instance where “user value is supplanted in favor of shareholder value.” The neologism “dark pattern” was coined in 2010 by Harry Brignull. † i darkpatterns.org

Darknet

The part of the Internet below the private Deep Web that uses custom software and hidden networks superimposed on the architecture of the Internet. “Darknet” was originally often associated with the Tor network. Anonymous communication between whistle-blowers, journalists, and news organizations is also facilitated by the “Darknet” Tor network. †

Dart

A client-optimized programming language for apps on multiple platforms. Dart is an object-oriented, class-defined, garbage-collected language using a C-style syntax that transcompiles

optionally into JavaScript. It supports interfaces, mixins, abstract classes, reified generics, static typing, and a sound type system. Dart was released in 2011 by Google. † [i dart.dev](#)

Data

Individual units of information. A datum describes a single quality or quantity of some object or phenomenon. In analytical processes, data are represented by variables. Data is sometimes said to be transformed into information when it is viewed in context or in post-analysis. †

Data center

A dedicated space within a building, a building, or a group of buildings used to house computer systems and associated components, such as telecommunications and storage systems. A data center generally includes redundant or backup components and infrastructure for power supply, data communication connections, environmental controls (e.g., air conditioning, fire suppression), and various security devices. †

Data Control Language

A syntax similar to a computer programming language used to control access to data stored in a database (authorization). In particular, DCL is a component of Structured Query Language (SQL). †

Data Definition Language

A syntax similar to a computer programming language for defining data structures, especially database schemas. DDL statements create and modify database objects such as tables, indexes, and users. Common DDL statements are CREATE, ALTER, and DROP. †

Data lake

A system or repository of data stored in its natural or raw format, usually object blobs or files. A data lake is often a single store of data including raw copies of source system data, sensor data, social data, etc., and transformed data used for tasks such as reporting, visualization, advanced analytics, and machine learning. †

Data Manipulation Language

A computer programming language used for adding (inserting), deleting, and modifying (updating) data in a database. A DML is often a sublanguage of a broader database language such as SQL, with the DML comprising some of the operators in the language. Read-only selecting of data is sometimes distinguished as being part of a separate data query language (DQL), but it is closely related and sometimes also considered a component of a DML; some operators may perform both selecting (reading) and writing. †

Data Query Language

→ Query language

Data storage

→ Storage

Data Stream Management System

A computer software system to manage continuous data streams. A DSMS is similar to a database management system (DBMS), which is, however, designed for static data in conventional databases. A DSMS also offers flexible query processing so that the information needed can be expressed using queries. However, in contrast to a DBMS, a DSMS executes a continuous query that is not only performed once, but is permanently installed. Therefore, the query is continuously executed until it is explicitly uninstalled. †

Data swamp

A deteriorated and unmanaged data lake that is either inaccessible to its intended users or is providing little value. †

Data type

→ Type

Data visualization

The graphic representation of data. Data visualization involves producing images that communicate relationships among the represented data to viewers of the images. This communication is achieved through the use of a systematic mapping between graphic marks and data values in the creation of the visualization. The mapping establishes how data values will be represented visually, determining how and to what extent a property of a graphic mark, such as size or color, will change to reflect changes in the value of a datum. To communicate information clearly and efficiently, data visualization uses statistical graphics, plots, information graphics, and other tools. Numerical data may be encoded using dots, lines, or bars, to visually communicate a quantitative message. Effective visualization helps users analyze and reason about data and evidence. It makes complex data more accessible, understandable, and usable. †

Data warehouse

A system used for data analysis and reporting, and a core component of business intelligence. Data warehouses are central repositories of integrated data from one or more disparate sources. They store current and historical data in one single place. †

data-* attribute

→ Custom data attribute

Database

An organized collection of data, generally stored and accessed electronically from a computer system. Relational databases model data as rows and columns in a series of tables, and the vast majority use SQL for writing and querying data. Non-relational databases, also referred to as NoSQL, use different query languages. †

Database engine

The underlying software component that a database management system (DBMS) uses to create, read, update, and delete (CRUD) data from a database. Most database management systems include their own application programming interface (API) that allows the user to interact with their underlying engine without going through the user interface of the DBMS. The term “database engine” is frequently used interchangeably with “database server” or “database management system.” †

Database index

A data structure that improves the speed of data retrieval operations on a database table at the cost of additional writes and storage space to maintain the index data structure. Indexes can be created using one or more columns of a database table, providing the basis for both rapid random lookups and efficient access of ordered records. †

Database language

→ Query language

Database Management System

A software system that enables users to define, create, maintain, and control access to a

database. The “DBMS” acronym is sometimes extended to indicate the underlying database model, with RDBMS for the relational, OODBMS or ORDBMS for the object-oriented, and OR-DBMS for the object-relational model. Other extensions can indicate some other characteristic, such as DDBMS for a distributed database management systems. †

Database server

A server which uses a database application to provide database services to other computer programs or computers. Database management systems frequently provide database server functionality, and some database management systems (such as MySQL) rely exclusively on this client–server model for database access (while others, like SQLite, are meant for use as an embedded database). †

DAU

→ Daily Active Users

DAVE

→ Delete, Add, View, Edit

DBC

→ Design by Contract

DBMS

→ Database Management System

DCE

→ Dead code elimination

DCL

→ Data Control Language

DCVS

→ Distributed Concurrent Versions System

DDA

→ Disability Discrimination Act

DDD

→ Domain-Driven Design

DDL

→ Data Definition Language

DDoS

Distributed → Denial of Service

Dead code elimination

A compiler optimization to remove code which does not affect the program results. Removing such code has several benefits: It shrinks program size, an important consideration in some contexts, and it allows the running program to avoid executing irrelevant operations, which reduces its running time. Dead code elimination can also enable further optimizations by simplifying program structure. Dead code includes code that can never be executed (unreachable code), and code that only affects dead variables (written to, but never read again), that is, irrelevant to the program. †

Dead letter queue

A queue that other queues can send messages that could not be processed successfully. Dead letter queues are useful to isolate unsuccessfully handled messages.

Debugging

The process of finding and resolving defects or problems within a computer program that prevent correct operation of application or system software. Debugging tactics can involve interactive debugging, control flow analysis, unit testing, integration testing, log file analysis, monitoring at the application or system level, memory dumps, and profiling. †

Declaration

In CSS, a declaration assigns a value of a property (or, in case of a shorthand, several values for several properties) to a selected element. A declaration is part of a declaration block as well as a rule. It consists of a property, a colon (:), and a value. If there are multiple declarations in a block, a semi-colon (;) must be inserted to separate each declaration. †

Declaration block

A block of zero or more CSS declarations and at-rules, enclosed by an opening ({) and a closing curly brace (}).

Decoration

The attempt to make a physical or virtual object more beautiful. Not to be confused with Design.

Decryption

The opposite of encryption, or the reverse process of it, moving from unintelligible ciphertext back to plain-text. †

Deep linking

The linking of a specific web resource or piece of web content rather than the respective website's home page.

Deep Web

Parts of the World Wide Web whose contents are not indexed by standard web search engines. The opposite term to the Deep Web is the "Surface Web," which is accessible to everyone using the Internet. The content of the Deep Web is hidden behind HTTP forms and includes many common uses such as web mail, online banking, private or otherwise restricted access social media pages and profiles, some web forums that require registration for viewing content, and services that users must pay for, and which are protected by paywalls, such as video-on-demand as well as online magazines and newspapers. The term "Deep Web" has first been used in 2001 by Michael K. Bergman. †

Defect

→ Bug

Defect tracking system

→ Bug tracking system

Definition of "Done"

A Scrum term that means a shared understanding of expectations that an increment must meet in order to be potentially releasable. The Definition of "Done" is mutually defined by the Development Teams of an organization's Scrum Teams.

Delete, Add, View, Edit

A variation of CRUD. †

Demilitarized Zone

A physical or logical subnetwork that contains and exposes an organization's external-facing services to an untrusted network, usually a larger network such as the Internet. The purpose of

a DMZ is to add an additional layer of security to an organization's local area network (LAN): An external network node can access only what is exposed in the DMZ, while the rest of the organization's network is firewalled. †

Denial of Service

A cyber attack in which the perpetrator seeks to make a machine or network resource unavailable to its intended users by temporarily or indefinitely disrupting services of a host connected to the Internet. Denial of service is typically accomplished by flooding the targeted machine or resource with superfluous requests in an attempt to overload systems and prevent some or all legitimate requests from being fulfilled. †

Deno

A runtime for JavaScript and TypeScript that is based on the V8 JavaScript engine and the Rust programming language. It was created in 2018 by Ryan Dahl, original creator of Node.js, and is focused on security and productivity. Deno explicitly takes on the role of both runtime and package manager within a single executable, rather than requiring a separate package management program. † [i deno.land](https://deno.land)

Dependency

→ Coupling

Dependency injection

A technique whereby one object supplies the dependencies of another object. A “dependency” is an object that can be used, for example as a service. Instead of a client specifying which service it will use, something tells the client what service to use. The “injection” refers to the passing of a dependency (a service) into the object (a client) that would use it. The service is made part of the client's state. Passing the service to the client, rather than allowing a client to build or find the service, is the fundamental requirement of the pattern. The intent behind dependency injection is to achieve separation of concerns of construction and use of objects. This can increase readability and code reuse. †

Dependency Inversion Principle

A specific form of decoupling software modules. When following this principle, the conventional dependency relationships established from high-level policy-setting modules to low-level dependency modules are reversed, thus rendering high-level modules independent of the low-level module implementation details. The principle states 1) that high-level modules should not depend on low-level modules, but that both should depend on abstractions (e.g., interfaces), and 2) that abstractions should not depend on details, but that details (concrete implementations) should depend on abstractions. †

Deployment

All of the activities that make a software system available for use. The general deployment process consists of several interrelated activities with possible transitions between them. Because every software system is unique, the precise processes or procedures within each activity are difficult to define. Therefore, deployment should be interpreted as a general process that has to be customized according to specific requirements or characteristics. †

Deployment environment

A computer system in which a computer program or software component is deployed and executed. In simple cases, such as developing and immediately executing a program on the

same machine, there may be a single environment, but in industrial use the development environment (where changes are originally made) and production environment (what end users use) are separated; often with several stages in between. This structured release management process allows phased deployment (rollout), testing, and rollback in case of problems. †

Deprecated

→ Deprecation

Deprecation

The discouragement of use of some terminology, feature, design, or practice, typically because it has been superseded or is no longer considered efficient or safe, without completely removing it or prohibiting its use. †

Descender

The portion of a letter that extends below the baseline of a font. †

Deserialization

The opposite of serialization, extracting a data structure or object state from a series of bytes. †

Design

A plan or specification for the construction of an object or system or for the implementation of an activity or process, or the result of that plan or specification in the form of a prototype, product, or process. The design usually has to satisfy certain goals and constraints, may take into account aesthetic, functional, economic, or socio-political considerations, and is expected to interact with a certain environment. †

Design by Contract

An approach for designing software. DBC prescribes that software designers should define formal, precise, and verifiable interface specifications for software components, which extend the ordinary definition of abstract data types with preconditions, postconditions, and invariants. These specifications are referred to as “contracts,” in accordance with a conceptual metaphor with the conditions and obligations of business contracts. The approach assumes all client components that invoke an operation on a server component will meet the preconditions specified as required for that operation. †

Design language

→ Design system

Design system

A structured collection of design particles, elements, and components, alongside documentation and guidelines as well as, occasionally, code and tools.

Design strategy

The development and application of future-oriented design principles in order to increase an organization’s innovative and competitive qualities. Its foundations lie in the analysis of external and internal trends and data, which enables design decisions to be made on the basis of facts rather than aesthetics or intuition. Strategic design is regarded as an effective way to bridge innovation, research, management, and design. †

Design vocabulary

→ Design system

Destructuring

A JavaScript expression that makes it possible to unpack values from arrays, or properties from objects, into distinct variables. †

Developer Experience

The experience developers have when they work with developer infrastructure, tools, and documentation. DX is similar to User Experience in that many UX guidelines also apply to DX, with the difference that the user is a developer.

Developer tools

Tools for web developers to test and debug their code. They are different from website builders and integrated development environments (IDEs) in that they do not assist in the direct creation of a web page, rather they are tools used generate, deploy, test, analyze, and optimize a website or application. †

→ DevTools

Development and operations

→ DevOps

Development Team

A Scrum role denoting a team that is responsible for managing and doing all the work required to prepare a releasable increment of software, and that knows and follows the Scrum values, roles, and events.

DevEx

→ Developer Experience

Device orientation

The physical orientation of a hardware device. In the deviceorientation event specification, it is defined through three angles alpha (z-axis), beta (x-axis), and gamma (y-axis). [i w3.org/TR/orientation-event](http://w3.org/TR/orientation-event)

Device pixel

A reference to the physical pixels of a device.

DevOps

A set of practices that combines software development (Dev) and information-technology operations (Ops) which aims to shorten the systems development lifecycle and provide continuous delivery with high software quality. †

DevTools

→ Chrome DevTools

DHCP

→ Dynamic Host Configuration Protocol

DHTML

→ Dynamic HTML

Dialog box

A graphical control element in the form of a small window that communicates information to the user and prompts them for a response. Dialog boxes are classified as “modal” or “modeless,” depending on whether they block interaction with the software that initiated the dialog. The type of dialog box displayed is dependent upon the desired user interaction. †

Digital Asset Management

Software that enables the respective owner and their delegates to perform operations on digital assets, providing a system that can store, organize, and share the managed data.

Digital Rights Management

A set of access control technologies for restricting the use of proprietary hardware and copyrighted works. DRM technologies try to control the use, modification, and distribution of copyrighted works (such as software and multimedia content), as well as systems within devices that enforce these policies. The use of digital rights management is not universally accepted. †

DIP → Dependency Inversion Principle

Directionality

The direction in which a text is written.

Disability Discrimination Act

British accessibility regulations which have been repealed and replaced by the Equality Act 2010 (except in Northern Ireland where the Act still applies). †

Disciplined Agile Delivery

An approach to agile software development. DAD enables teams to make simplified process decisions around incremental and iterative solution delivery. It builds on the many practices espoused by advocates of agile software development, including Scrum, agile modeling, lean software development, and others. †

Display advertising

Graphic advertising on Internet websites, apps, or social media through banners or other advertising formats made of text, images, Flash, video, and audio. The main purpose of display advertising is to deliver general advertisements and brand messages to site visitors. †

Display resolution

The number of distinct pixels in each dimension that can be displayed. It can be an ambiguous term especially as the displayed resolution is controlled by different factors in cathode ray tube (CRT) displays, flat-panel displays (including liquid-crystal displays) and projection displays using fixed picture-element (pixel) arrays. It is usually quoted as width × height, with the units in pixels; for example, 1024×768 means the width is 1024 pixels and the height is 768 pixels. For device displays such as phones, tablets, monitors, and televisions, the use of the word “resolution” as defined is a misnomer, though common. The term “display resolution” is usually used to mean pixel dimensions which does not tell anything about the pixel density of the display on which the image is actually formed: Resolution properly refers to the pixel density, the number of pixels per unit distance or area, not the total number of pixels. In digital measurement, the display resolution would be given in pixels per inch (PPI). †

Distributed Concurrent Versions System

A distributed version control system that enables software developers working on locally distributed sites to efficiently collaborate on a software project. DCVS is based on Concurrent Versions System. †

Distributed Persistent Rendering

A generating or rendering of assets that is distributed between build and request time. DPR

allows an asset cache to persist while other assets, which were not previously rendered, are being requested. The concept of DPR was coined in 2021 by Netlify.

Distributed Version Control System

A form of version control in which the complete code base, including its full history, is mirrored on every developer's computer. This enables automatic management branching and merging, speeds up most operations (except pushing and pulling), improves the ability to work offline, and does not rely on a single location for backups. †

Dither

An intentionally applied form of noise used to randomize quantization error, preventing large-scale patterns such as color banding in images. Dither is routinely used in processing of both digital audio and video data. †

Divitis

Excessive use of `div` elements, an HTML anti-pattern.

Django

A Python-based web framework that follows the model-template-views (MTV) architectural pattern and whose primary goal is to ease the creation of complex, database-driven websites. The framework emphasizes reusability and “pluggability” of components, less code, low coupling, rapid development, and the principle of Don't Repeat Yourself (DRY). Django was released in 2005; it is maintained by the Django Software Foundation (DSF). † i [djangoproject.com](https://www.djangoproject.com)

DKIM

→ DomainKeys Identified Mail

DLR

→ Dynamic Language Runtime

DMARC

→ Domain-Based Message Authentication, Reporting, and Conformance

DML

→ Data Manipulation Language

DMZ

→ Demilitarized Zone

DNAME

A delegation name resource record in the Domain Name System (DNS). †

DNS

→ Domain Name Service

→ Domain Name System

DNS over HTTPS

A protocol for performing remote Domain Name System (DNS) resolution via the HTTPS protocol. A goal of the method is to increase user privacy and security by preventing eavesdropping and manipulation of DNS data through man-in-the-middle attacks by using the HTTPS protocol to encrypt the data between the DoH client and the DoH-based DNS resolver. DoH is specified in RFC 8484. †

DNS root zone

→ Root zone

DNS spoofing

A form of computer security hacking in which corrupt Domain Name System data is introduced into the DNS resolver's cache, causing the name server to return an incorrect result record, e.g., an IP address. This results in traffic being diverted to the attacker's computer (or any other computer). †

DNSKEY

A DNS key resource record in the Domain Name System (DNS). †

DNSSEC

→ Domain Name System Security Extensions

DocBook

A semantic markup language originally created for technical documentation. As a semantic language, DocBook documents do not describe what their contents “look like,” but rather the meaning of those contents. † [i docbook.org](http://docbook.org)

Docker

A set of Platform as a Service (PaaS) products that uses OS-level virtualization to deliver software in packages called containers. Containers are isolated from one another and bundle their own software, libraries, and configuration files; they can communicate with each other through well-defined channels. All containers are run by a single operating system kernel and therefore use fewer resources than virtual machines. The Docker software was first released in 2013 by Docker, the company. † [i docker.com](http://docker.com)

DOCTYPE

An instruction that associates a particular SGML or XML document (for example, a web page) with a document type definition (for example, the formal definition of a particular version of HTML prior to HTML 5). In the serialized form of the document, the DOCTYPE manifests as a short string of markup that conforms to a particular syntax. The HTML layout engines in modern web browsers perform DOCTYPE sniffing or switching, wherein the DOCTYPE in a document served as `text/html` determines a layout mode, such as quirks or standards mode. Since web browsers are implemented with special-purpose HTML parsers, rather than general-purpose DTD-based parsers, they do not use DTDs and will never access them even if a URL is provided. The DOCTYPE is retained in HTML as a “mostly useless, but required” header only to trigger standards mode in common browsers. †

Document directive

A way to govern the properties of a document or worker environment to which a content security policy (CSP) applies. Document directives do not fall back to the `default-src` directive. ‡

Document Object Model

A cross-platform and language-independent interface that treats an XML or HTML document as a tree structure wherein each node is an object representing a part of the document. The DOM represents a document with a logical tree. Each branch of the tree ends in a node, and each node contains objects. DOM methods allow programmatic access to the tree; with them one can change the structure, style, or content of a document. Nodes can have event handlers attached to them. † [i dom.spec.whatwg.org](http://dom.spec.whatwg.org)

Document Style Semantics and Specification Language

An international standard developed to provide style sheets for SGML documents. DSSSL consists of two parts: a tree transformation process that can be used to manipulate the tree structure of documents prior to presentation, and a formatting process that associates the elements in the source document with specific nodes in the target representation—the flow object tree. DSSSL is compatible with any SGML-based document type, but it has been used most often with DocBook. †

Document type declaration

→ DOCTYPE

Document Type Definition

A set of markup declarations that define a document type for a SGML-family markup language (GML, SGML, XML, HTML). A DTD defines the valid building blocks of an XML document. It defines the document structure with a list of validated elements and attributes. A DTD can be declared inline inside an XML document, or as an external reference. †

Documentation

A set of documents provided in digital or analog media. Examples include user guides, white papers, online help, and quick-reference guides. †

DoH

→ DNS over HTTPS

Dojo

A modular JavaScript library (or, more specifically, JavaScript toolkit) designed to ease the rapid development of cross-platform, JavaScript-based websites and applications. Dojo was first released in 2004. † [i dojotoolkit.org](http://dojotoolkit.org)

DOM

→ Document Object Model

DOM clobbering

The injection of HTML into a web page with the goal of manipulating the DOM and escalating the injection to a cross-site scripting (XSS) attack. For example, one form of DOM clobbering uses an element to overwrite a global variable for malicious purposes.

Domain

An administrative grouping of multiple private computer networks or hosts within the same infrastructure. Domains can be identified using a domain name; domains which need to be accessible from the public Internet can be assigned a globally unique name within the Domain Name System (DNS). †

Domain expert

→ Subject-Matter Expert

Domain name

An identification string that defines a realm of administrative autonomy, authority, or control within the Internet. Domain names are used in various networking contexts and for application-specific naming and addressing purposes. In general, a domain name identifies a network domain, or it represents an Internet Protocol (IP) resource, such as a personal computer used to access the Internet, a server computer hosting a website, or the website itself or any other service communicated via the Internet. †

Domain name server

→ Name server

Domain Name Service

→ Domain Name System

Domain Name System

A hierarchical and decentralized naming system for computers, services, or other resources connected to the Internet or a private network. The DNS associates various information with domain names assigned to each of the participating entities. Most prominently, it translates more readily memorized domain names to the numerical IP addresses needed for locating and identifying computer services and devices with the underlying network protocols. By providing a worldwide distributed directory service, the Domain Name System has been an essential component of the functionality of the Internet since 1985. †

Domain Name System Security Extensions

A suite of extension specifications by the Internet Engineering Task Force (IETF) for securing data exchanged in the Domain Name System (DNS) in Internet Protocol (IP) networks. The protocol provides cryptographic authentication of data, authenticated denial of existence, and data integrity, but not availability or confidentiality. †

Domain sharding

The splitting of content across multiple subdomains. When multiple domains are used to serve multiple assets, browsers are able to download more resources simultaneously, resulting in a faster page load time and improved user experience. The problem with domain sharding, in terms of performance, is the cost of extra DNS lookups for each domain and the overhead of establishing each TCP connection. ‡

Domain-Based Message Authentication, Reporting, and Conformance

An email authentication protocol designed to give email domain owners the ability to protect their domain from unauthorized use, commonly known as email spoofing. The purpose and primary outcome of implementing DMARC is to protect a domain from being used in business email compromise attacks, phishing emails, email scams, and other cyber threat activities. Once a DMARC DNS entry is published, any receiving email server can authenticate the incoming email based on the instructions published by the domain owner within the DNS entry. DMARC was defined in 2015 in RFC 7489. †

Domain-Driven Design

The concept that the structure and language of software code (class names, class methods, class variables) should match the business domain. For example, if a software processes loan applications, it might have classes such as LoanApplication and Customer, and methods such as AcceptOffer and Withdraw. †

DomainKeys Identified Mail

An email authentication method designed to detect forged sender addresses in email (email spoofing), a technique often used in phishing and email spam. DKIM allows the receiver to check that an email claimed to have come from a specific domain was indeed authorized by the owner of that domain. It achieves this by affixing a digital signature, linked to a domain name, to each outgoing email message. The recipient system can verify this by looking up the

sender's public key published in the DNS. DKIM is an Internet Standard, defined in 2011 in RFC 6376, with updates in RFC 8301 and 8463. †

Don't Repeat Yourself

A principle of software development aimed at reducing repetition of software patterns, replacing it with abstractions or using data normalization to avoid redundancy. The DRY principle is stated as "Every piece of knowledge must have a single, unambiguous, authoritative representation within a system." The principle has been introduced by Andy Hunt and Dave Thomas in their book *The Pragmatic Programmer*. †

Doorway page

A web page that is created for the deliberate manipulation of search engine indexes (spamdexing). A doorway page will affect the index of a search engine by inserting results for particular phrases while sending visitors to a different page. Doorway pages that redirect visitors without their knowledge use some form of cloaking. This usually falls under Black Hat SEO. †

DoS

→ Denial of Service

Dot file

A file (or folder) that starts with a dot character (for example, `.profile` or `.zshrc`). It is treated as hidden, that is, the `ls` command does not display them unless the `-a` flag (`ls -a`) is used. In most command-line shells, wildcards will not match files whose names start with "." unless the wildcard itself starts with an explicit ".". A convention arose of using dotfiles in the user's home directory to store per-user configuration or informational text. †

Dot notation

One of two ways to access object properties in JavaScript (`objectName.propertyName`), the other being bracket notation.

Dot-agnostic

A configuration aspect for email that allows dots (".") anywhere within the local-part of the email address, to still refer to the same address. That is, when dot-agnostic, `jane.doe@example.com`, `janedoe@example.com`, and `j.a.n.e.d.o.e@example.com` would all be the same address and reach the same recipient.

Dots per inch

A measure of spatial printing, video, or image scanner dot density, in particular the number of individual dots that can be placed in a line within the span of 1 inch (2.54 cm). Similarly, the more newly introduced dots per centimeter (d/cm or dpcm) refers to the number of individual dots that can be placed within a line of 1 centimeter (≈ 0.393 in). †

Double

A double-precision, 64-bit floating-point data type.

Downstream

In version control, a repository that is based on or pulls from another repository. The work "flows downstream."

Downtime

A period in which a system is unavailable. Downtime or outage duration refers to a period of time that a system fails to provide or perform its primary function. Reliability, availability, recovery, and unavailability are related concepts. Downtime is commonly applied to networks

and servers. The common reasons for unplanned outages are system failures (such as a crash) or communications failures (commonly known as network outage). †

Downward compatibility

→ Backward compatibility

DPI → Dots per inch

DPR

→ Distributed Persistent Rendering

DQL

→ Data Query Language

Dreamweaver

A proprietary web design and development tool. Dreamweaver was created by Macromedia in 1997 and developed by them until Macromedia was acquired by Adobe in 2005. †

Driver

The code-writing role in pair programming.

DRM

→ Digital Rights Management

DRY

→ Don't Repeat Yourself

DSMS

→ Data Stream Management System

DSSSL

→ Document Style Semantics and Specification Language

DTD

→ Document Type Definition

Duck typing

An application of the duck test—"If it walks like a duck and it quacks like a duck, then it must be a duck"—to determine if an object can be used for a particular purpose. With normal typing, suitability is determined by an object's type. In duck typing, an object's suitability is determined by the presence of certain methods and properties, rather than the type of the object itself. †

Dup

→ Duplicate (code)

Duplicate code

A sequence of source code that occurs more than once, either within a program or across different programs owned or maintained by the same entity. Duplicate code is generally considered undesirable. A minimum requirement is usually applied to the quantity of code that must appear in a sequence for it to be considered duplicate rather than coincidentally similar. Sequences of duplicate code are sometimes known as code clones or just clones, the automated process of finding duplication in source code is called clone detection. †

DVCS

→ Distributed Version Control System

DW

→ Data warehouse

DWH

→ Data warehouse

DX → Developer Experience

Dynamic

A type of website being dynamic on the server or on the client side. A server-side dynamic website is a website whose construction is controlled by an application server processing server-side scripts. In such scripting, parameters determine how the assembly of every new website proceeds, including the setting up of more client-side processing. A client-side dynamic website processes the website using HTML scripting running in the browser as it loads. JavaScript and other scripting languages determine the way the HTML in the received page is parsed into the Document Object Model, or DOM, that represents the loaded website. The same client-side techniques can then dynamically update or change the DOM in the same way. †

Dynamic Host Configuration Protocol

A network management protocol used on Internet Protocol (IP) networks for automatically assigning IP addresses and other communication parameters to devices connected to the network. DHCP eliminates the need for individually, manually configuring network devices. It consists of a centrally installed network DHCP server and client instances of the protocol stack on each computer or device. When connected to the network, and periodically thereafter, a client requests a set of parameters from the DHCP server using the DHCP protocol. †

Dynamic HTML

A collection of technologies used together to create interactive and animated websites by using a combination of a static markup language (such as HTML), a client-side scripting language (such as JavaScript), a presentation definition language (such as CSS), and the Document Object Model (DOM). The application of DHTML was introduced by Microsoft with the release of Internet Explorer 4 in 1997. †

Dynamic Language Runtime

A number of computer language services for dynamic languages. These services include a dynamic type system, dynamic method dispatch, dynamic code generation, and a hosting API. The DLR is used to implement dynamic languages on the .NET Framework, including the IronPython and IronRuby projects. It was first released in 2010 by Microsoft. † [i github.com/IronLanguages/dlr](https://github.com/IronLanguages/dlr)

Dynamic password

→ One-Time Password

Dynamic scope

Name resolution depending on the program state when the name is encountered, which is determined by the execution context (also called runtime context, calling context, or dynamic context). In dynamic scope, if a variable name's scope is a certain function, then its scope is the time period during which the function is executing; while the function is running, the variable name exists, and is bound to its value, but after the function returns, the variable name does not exist. †

Dynamic typing

An interpreter's assigning at runtime of a type to a variable, based on the variable's value at the time. ‡

Dyslexia

A difficulty with reading despite normal intelligence. Different people are affected to varying degrees. Problems may include difficulties in spelling words, reading quickly, writing words, “sounding out” words in the head, pronouncing words when reading aloud, and understanding what one reads. †



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

E

E-commerce

The activity of electronically buying or selling of products on online services or over the Internet. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. †

E2E → End-to-end (testing)

EAA

→ European Accessibility Act

EAT

→ Expertise, Authoritativeness, Trustworthiness

EBCDIC

→ Extended Binary Coded Decimal Interchange Code

EBM

→ Evidence-Based Management

Eclipse

An integrated development environment (IDE) used in computer programming. Eclipse contains a base workspace and an extensible plugin system for customizing the environment. It is written mostly in Java and its primary use is for developing Java applications, but it can also be used to develop applications in other programming languages. † | eclipse.org

ECMA

→ European Computer Manufacturers Association

Ecma International

A standards organization for information and communication systems. Ecma International acquired its current name in 1994, when the European Computer Manufacturers Association (ECMA) changed its name to reflect the organization's global reach and activities. The organization was founded in 1961 to standardize computer systems in Europe. † | ecma-international.org

ECMAScript

ECMAScript (or ES) is a scripting-language specification standardized by Ecma International in ECMA-262 and ISO/IEC 16262. It was created to standardize JavaScript to help foster multiple independent implementations. JavaScript has remained the best-known implementation of ECMAScript since the standard was first published, with other well-known implementations including JScript and ActionScript. ECMAScript is commonly used for client-side scripting on the World Wide Web, and is increasingly being used for writing server applications and services using Node.js. †

ECT

→ Effective Connection Type

Edge

A cross-platform web browser. Edge was released by Microsoft, first for Windows 10 and Xbox One in 2015, then for Android and iOS in 2017, and for macOS in 2019. † [i microsoft.com/microsoft-edge](https://microsoft.com/microsoft-edge)

Edge caching

The caching of content close to end users, for example by a Content Delivery Network (CDN).

Editor

As source code editor, a text editor program designed specifically for editing source code of computer programs. An editor may be a standalone application or it may be built into an integrated development environment (IDE) or web browser. Source code editors are a fundamental programming tool. †

EditorConfig

A file format for defining coding styles. [i editorconfig.org](https://editorconfig.org)

EFF → Electronic Frontier Foundation

Effective Connection Type

The measured network performance, returning a cellular connection type, like 3G, even if the actual connection is tethered broadband or Wi-Fi, based on the time between the browser requesting a page and effective type of the connection. ECT's values of slow-2g, 2g, 3g, and 4g are determined using observed round-trip times and downlink values. ‡ [i wicg.github.io/netinfo](https://wicg.github.io/netinfo)

Effectiveness

The capability of producing a desired result or the ability to produce desired output. When something is deemed effective, it means it has an intended or expected outcome, or produces a deep, vivid impression. Not to be confused with efficiency. †

Efficiency

The (often measurable) ability to avoid wasting materials, energy, efforts, money, and time in doing something or in producing a desired result. In a more general sense, it is the ability to do things well, successfully, and without waste. In more mathematical or scientific terms, it is a measure of the extent to which input is well used for an intended task or function (output). Efficiency often specifically comprises the capability of a specific application of effort to produce a specific outcome with a minimum amount or quantity of waste, expense, or unnecessary effort. †

EIP → Elastic IP

Elastic IP

With Amazon Web Services (AWS), a reserved public IP address that can be assigned to any Elastic Compute Cloud (EC2) instance in a region. An EIP can be flexibly allocated and released.

Elasticity

The ability of a system to handle high load, whether gradually over time or because of sudden change.

Electron

A framework developed and maintained by GitHub. Electron combines the Chromium rendering engine and the Node.js runtime, and allows for the development of desktop GUI applications using web technologies. Electron was first released in 2013. † [i electronjs.org](https://electronjs.org)

Electronic Frontier Foundation

An international non-profit digital rights group. The foundation was formed in 1990 by John Gilmore, John Perry Barlow, and Mitch Kapor to promote Internet civil liberties. † [i eff.org](http://eff.org)

Element

In HTML, a part of a document that can be represented through a tag. Element nodes can have HTML attributes specified. Nodes can also have content, including other nodes and text. Most HTML elements represent semantics, that is, have a particular meaning. †

Eleventy

A JavaScript-based static site generator. Eleventy was released in 2018 by Zach Leatherman. [i 11ty.dev](http://i11ty.dev)

else

→ Conditional

Em A typographic unit equal to the currently specified point size. For example, one em in a 16-point typeface is 16 points. Therefore, this unit is the same for all typefaces at a given point size. In CSS, the `em` unit is the height of the font in nominal points or inches. †

Emacs

A family of text editors that are characterized by their extensibility. The manual for the most widely used variant, GNU Emacs, describes it as “the extensible, customizable, self-documenting, real-time display editor.” Development of the first Emacs began in the mid-1970s, and work on its direct descendant, GNU Emacs, actively continues. † [i gnu.org/software/emacs](http://gnu.org/software/emacs)

Email

A method of exchanging messages (“mail”) between people using electronic devices. Invented by Ray Tomlinson, email first entered limited use in the 1960s and by the mid-1970s had taken the form now recognized as email. Email operates across computer networks, which today is primarily the Internet. Some early email systems required the author and the recipient to both be online at the same time, in common with instant messaging. Today’s email systems are based on a store-and-forward model. †

Email address

An identifier for an email box to which email messages are delivered. A wide variety of formats were used in early email systems, but only a single format is used today, following the specifications developed for Internet mail systems since the 1980s. An email address such as `jane.doe@example.com` is made up of a local-part, an “@” symbol, then a case-insensitive domain. †

Email spoofing

The creation of email messages with a forged sender address. †

Embedded content

Content that imports another resource into the document, or content from another vocabulary that is inserted into the document. Embedded content is marked up through the `audio`, `canvas`, `embed`, `iframe`, `img`, `math` (MathML), `object`, `picture`, `svg` (SVG), and `video` elements. §

Embedded style sheet

A style sheet embedded via the `style` element.

EME

→ Encrypted Media Extensions

Empiricism

A model in which only the past is accepted as certain and in which decisions are based on observation, experience, and experimentation. In Scrum, empiricism is based on the concepts of transparency, inspection, and adaptation.

Empty element

→ Void element

Empty string

The unique string of length zero. †

Encapsulation

The bundling of data with the methods that operate on that data, or the restricting of direct access to some of an object's components. Encapsulation is used to hide the values or state of a structured data object inside a class, preventing unauthorized parties' direct access to them. Publicly accessible methods are generally provided in the class (so-called getters and setters) to access the values, and other client classes call these methods to retrieve and modify the values within the object. †

Encrypted Media Extensions

A W3C specification for providing a communication channel between web browsers and digital rights management (DRM) agent software. EME allows the use of HTML video to play back DRM-wrapped content such as streaming video services without the use of heavy third-party media plugins like Adobe Flash or Microsoft Silverlight. The use of a third-party key management system may be required, depending on whether the publisher chooses to scramble the keys. EME is based on the Media Source Extensions specification. [i w3.org/TR/encrypted-media](http://w3.org/TR/encrypted-media)

Encryption

The process of converting ordinary information (called plain-text) into unintelligible form (called ciphertext). †

End of file

A condition in a computer operating system where no more data can be read from a data source. The data source is usually called a file or stream. The actual value of EOF is implementation-dependent (but is commonly -1, such as in glibc) and is distinct from all valid character codes. Block-reading functions return the number of bytes read, and if this is fewer than asked for, then the end of file was reached or an error occurred (checking of `errno` or dedicated function, such as `ferror` is often required to determine which). †

End of line

→ Newline

End tag

The closing tag of an HTML or another markup language's element, like `</p>`, a paragraph's end tag.

End-to-end testing

A software test methodology focused on testing an entire application from start to end based on conditions that are as realistic as possible, explicitly including dependencies on other software and infrastructure.

Entity

A primitive data type, which associates a string with either a unique alias (such as a user-specified name) or an SGML-reserved word (such as #DEFAULT). Entities are foundational to the organizational structure and definition of SGML documents. The SGML specification defines numerous entity types, which are distinguished by keyword qualifiers and context. An entity string value may variously consist of plain-text, SGML tags, or references to previously defined entities. †

Entity graph

→ Knowledge Graph

Entity identifier

→ Surrogate key

Entity reference

→ Character entity reference

→ Numeric character reference

Environment variable

A dynamic-named value that can affect the way running processes will behave on a computer. Environment variables are part of the environment in which a process runs. For example, a running process can query the value of the TEMP environment variable to discover a suitable location to store temporary files, or the HOME or USERPROFILE variable to find the directory structure owned by the user running the process. Environment variables were introduced in their modern form in 1979 with Version 7 Unix. †

EOF

→ End of file

EOL

→ End of line

Ephemeral storage

→ Temporary storage

Epic

In agile development, a large problem or feature space that is broken into several user stories or tasks, and distributed over several Sprints.

Equal-width typeface

→ Uniwidth typeface

Equality Act 2010

An Act of Parliament of the United Kingdom with the purpose of consolidating, updating, and supplementing prior Acts and Regulations. These consisted, primarily, of the Equal Pay Act 1970, the Sex Discrimination Act 1975, the Race Relations Act 1976, the Disability Discrimination Act 1995, and three major statutory instruments protecting discrimination in employment on grounds of religion or belief, sexual orientation, and age. † [i is.gd/4f7mLd](https://www.is.gd/4f7mLd)

Error

An action which is inaccurate or incorrect. In some usages, an error is synonymous with a mistake. †

→ Bug

ES → ECMAScript

ES Modules

A JavaScript-native module standard introduced with ES6 (2015) that enables more code reuse through means of `export` and `import` statements. ES Modules make for one of several module formats, others being CommonJS, Asynchronous Module Definition (AMD), and Universal Module Definition (UMD).

ES4 The proposed fourth edition of ECMA-262 (ECMAScript 4), first drafted in 1999, which was abandoned in 2008. †

ES6 The sixth version of ECMA-262 (ECMAScript 6 or ECMAScript 2015), released in 2015. †

Ethics

A branch of philosophy that involves systematizing, defending, and recommending concepts of right and wrong conduct. Ethics seeks to resolve questions of human morality by defining concepts such as good and evil, right and wrong, virtue and vice, justice and crime. Three major areas of study within ethics recognized today are 1) meta-ethics, concerning the theoretical meaning and reference of moral propositions, and how their truth values (if any) can be determined; 2) normative ethics, concerning the practical means of determining a moral course of action; and 3) applied ethics, concerning what a person is obligated (or permitted) to do in a specific situation or a particular domain of action. †

Etiquette

The set of conventional rules of personal behavior in polite society, usually in the form of an ethical code that delineates the expected and accepted social behaviors that accord with the conventions and norms observed by a society, a social class, or a social group. In modern English usage, the French word “*étiquette*” (“ticket”) dates from the year 1750. †

ETL

→ Extract, Transform, Load

European Accessibility Act

A directive that aims to improve the trade between members of the EU for accessible products and services, by removing country-specific rules. The European Accessibility Act was built to complement the EU’s Web Accessibility Directive which became law in 2016. It is also reflecting the obligations of the UN’s Convention on the Rights of Persons with Disabilities. It covers a wide range of systems including personal devices such as computers, smartphones, ebooks, and TVs, as well as public services like television broadcasts, ATMs, ticketing machines, public transport services, banking services and e-commerce sites. † [i is.gd/mFefnH](https://is.gd/mFefnH)

European Computer Manufacturers Association

→ Ecma International

Event

An action or occurrence recognized by software, often originating asynchronously from the external environment, that may be handled by the software. Computer events can be generated or triggered by the system, by the user, or in other ways. Typically, events are handled synchronously with the program flow, that is, the software may have one or more dedicated places where events are handled, frequently an event loop. A source of events includes the user, who may interact with the software by way of, for example, keystrokes on the keyboard. Another source is a hardware device such as a timer. Software can also trigger its own set

of events into the event loop, e.g., to communicate the completion of a task. Software that changes its behavior in response to events is said to be event-driven, often with the goal of being interactive. †

Event handler

A mechanism that allows to be notified of DOM events. Two common approaches are `addEventListener()` and specific onevent handlers. ‡

Event loop

A programming construct or design pattern that waits for and dispatches events or messages in a program. The event loop works by making a request to some internal or external “event provider” (that generally blocks the request until an event has arrived), then calls the relevant event handler to dispatch the event. †

Event-driven architecture

A software architecture paradigm promoting the production, detection, consumption of, and reaction to events. This architectural pattern may be applied by the design and implementation of applications and systems that transmit events among loosely coupled software components and services. An event-driven system typically consists of event emitters (or agents), event consumers (or sinks), and event channels. Building systems around an event-driven architecture simplifies horizontal scalability in distributed computing models and makes them more resilient to failure. †

Eventual consistency

A consistency model used in distributed computing to achieve high availability that informally guarantees that, if no new updates are made to a given data item, eventually all accesses to that item will return the last updated value. A system that has achieved eventual consistency is often said to have converged, or achieved replica convergence. †

Evidence-Based Management

An empirical framework that documents means by which value can be delivered to customers, measures the value delivered, and uses those measures to guide improvements. [i is.gd/yeRUyR](http://is.gd/yeRUyR)

Exception

A condition that interrupts normal code execution. In JavaScript syntax errors are a common source of exceptions. ‡

Exception handling

The process of responding to the occurrence, during computation, of exceptions—anomalous or exceptional conditions requiring special processing—often disrupting the normal flow of program execution. Exception handling is provided by specialized programming language constructs, computer hardware mechanisms like interrupts, or operating system IPC facilities like signals. †

Exception handling syntax

The set of keywords and structures provided by a computer programming language to allow exception handling, which separates the handling of errors that arise during a program’s operation from its ordinary processes. Syntax for exception handling varies between programming languages, partly to cover semantic differences but largely to fit into each language’s overall syntactic structure. Some languages do not call the relevant concept “exception handling”; others may not have direct facilities for it, but can still provide means to implement it. Most

commonly, error handling uses a `try... [catch...] [finally...]` block, and errors are created via a `throw` statement, but there is significant variation in naming and syntax. †

Exit code

→ Exit status

Exit status

A small number passed from a child process (or callee) to a parent process (or caller) when it has finished executing a specific procedure or delegated task. †

Expertise, Authoritativeness, Trustworthiness

A concept from Google's *Search Quality Evaluator Guidelines* to help assess the quality of websites and apps.

Express

A web application framework for Node.js. Express is designed for building web applications and APIs. It was first released in 2010. † [i expressjs.com](https://expressjs.com)

Extended Binary Coded Decimal Interchange Code

An 8-bit character encoding used mainly on IBM mainframe and IBM midrange computer operating systems. EBCDIC descended from the code used with punched cards and the corresponding six-bit binary-coded decimal code used with most of IBM's computer peripherals of the late 1950s and early 1960s. †

Extensible Application Markup Language

A declarative XML-based language developed by Microsoft that is used for initializing structured values and objects. The acronym "XAML" originally stood for "Extensible Avalon Markup Language," "Avalon" being the codename for Windows Presentation Foundation (WPF). XAML was first published in 2008. † [i is.gd/K0EzBE](https://is.gd/K0EzBE)

Extensible HyperText Markup Language

A part of the family of XML markup languages. XHTML mirrors or extends versions of the widely used HyperText Markup Language (HTML), the language in which web pages are formulated. While HTML, prior to HTML 5, was defined as an application of Standard Generalized Markup Language (SGML), a flexible markup language framework, XHTML is an application of XML, a more restrictive subset of SGML. XHTML documents are well-formed and may therefore be parsed using standard XML parsers, unlike HTML, which requires a lenient HTML-specific parser. † [i w3.org/TR/xhtml11](https://w3.org/TR/xhtml11)

Extensible Markup Language

A markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. The design goals of XML emphasize simplicity, generality, and usability across the Internet. Although the design of XML focuses on documents, the language is widely used for the representation of arbitrary data structures such as those used in web services. XML was first defined in 1998. † [i w3.org/XML](https://w3.org/XML)

Extensible Stylesheet Language

A family of languages used to transform and render XML documents. Historically, the W3C's XSL Working Group produced a draft specification under the name "XSL," which eventually split into three parts: 1) XSL Transformation (XSLT), an XML language for transforming XML documents; 2) XSL Formatting Objects (XSL-FO), an XML language for specifying the visual formatting of an XML document; and 3) XML Path Language (XPath), a non-XML language

used by XSLT, and also available for use in non-XSLT contexts, for addressing the parts of an XML document. The term “XSL” is now used with a number of different meanings. † [i w3.org/Style/XSL](http://i.w3.org/Style/XSL)

Extensible Stylesheet Language Transformations

A declarative language used to convert XML documents into other XML documents, HTML, PDF, plain-text, and so on. XSLT has its own processor that accepts XML input, or any format convertible to an XQuery and XPath Data Model. The XSLT processor produces a new document based on the XML document and an XSLT style sheet, making no changes to the original files in the process. ‡ [i w3.org/TR/xslt](http://i.w3.org/TR/xslt)

External

Originating outside one’s organization.

Extract, Transform, Load

The general procedure of copying data from one or more sources into a destination system which represents the data differently from the source(s) or in a different context. The ETL process became a popular concept in the 1970s and is often used in data warehousing. †

Extreme Programming

A software development methodology which is intended to improve software quality and responsiveness to changing customer requirements. As a type of agile software development, XP advocates frequent releases in short development cycles, which is intended to improve productivity and introduce checkpoints where new customer requirements can be adopted. Other elements of Extreme Programming include programming in pairs or doing extensive code reviews, unit testing of all code, avoiding programming of features until they are needed, a flat management structure, code simplicity and clarity, expecting changes in the customer’s requirements as time passes and the problem is better understood, and frequent communication with the customer and among programmers. †

Eye tracking

The process of measuring either the point of gaze (where one is looking) or the motion of an eye relative to the head. An eye tracker is a device for measuring eye positions and eye movement. Eye trackers are used in research on the visual system, in psychology, in psycholinguistics, in marketing, as an input device for human-computer interaction, and in product design. †



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

F

FaaS

→ Function as a Service

Facade pattern

A software design pattern commonly used in object-oriented programming. Analogous to a facade in architecture, a facade is an object that serves as a front-facing interface masking more complex underlying or structural code. A facade can improve the readability and usability of a software library by masking interaction with more complex components behind a single (and often simplified) API; provide a context-specific interface to more generic functionality (complete with context-specific input validation); and serve as a launching point for a broader refactor of monolithic or tightly-coupled systems in favor of more loosely-coupled code. †

Fagan inspection

A process of trying to find defects in documents (such as source code or formal specifications) during various phases of the software development process. It defines a process as an activity with pre-specified entry and exit criteria. Fagan inspection is named after Michael Fagan, who is credited as being the inventor of formal software inspections. †

Fagan testing

→ Fagan inspection

Failover

The switching to a redundant or standby computer server, system, hardware component, or network upon the failure or abnormal termination of the previously active application, server, system, hardware component, or network. Failover and switchover are essentially the same operation, except that failover is automatic and usually operates without warning, while switchover requires human intervention. †

Fallback

A contingency option to be taken if the preferred choice is unavailable. †

False negative

An error in which a test result improperly indicates no presence of a condition, such as a disease (the result is negative), when in reality it is present. A false negative is also known as a type II error. †

False positive

An error in data reporting in which a test result improperly indicates presence of a condition (the result is positive), when in reality it is not present. A false positive is also known as a type I error. †

Falsy

A value that is considered false when encountered in a Boolean context, which is relevant notably with JavaScript which uses type conversion to coerce any value to a Boolean in contexts that require it, such as conditionals and loops. ‡

Fat footer

A footer UI element but with a substantial amount of content and links. A “fat footer” stands in contrast to a minimal web page footer consisting only of basic navigation aids (like a home link) and meta-information (like a legal notice and contact information).

Favelet

→ Bookmarklet

Favicon

A file containing one or more small icons, associated with a particular website or web page. Browsers that provide favicon support typically display a page’s favicon in the browser’s address bar (sometimes in the history as well) and next to the page’s name in a list of bookmarks. Browsers that support a tabbed document interface typically show a page’s favicon next to the page’s title on the tab, and site-specific browsers use the favicon as a desktop icon. †

Favorite

→ Bookmark

FCP

→ First Contentful Paint

Feature creep

The excessive ongoing expansion or addition of new features in a product, especially in computer software, video games, and consumer and business electronics. These extra features go beyond the basic function of the product and can result in software bloat and over-complication rather than simple design. †

Feature detection

A technique for handling differences between runtime environments (typically web browsers or user agents), by programmatically testing for clues that the environment may or may not offer certain functionality. This information is then used to make the application adapt in some way to suit the environment, for example to make use of certain APIs or to tailor the user experience. Feature detection is said to be more reliable and future-proof than other techniques, like browser sniffing and browser-specific CSS hacks. †

Feature phone

A mobile phone that retains the form factor of earlier-generation phones, with button-based input and a small display. Feature phones are sometimes called dumbphones in contrast with touch-input smartphones. Feature phones tend to use an embedded operating system with a small and simple graphical user interface, unlike large and complex general-purpose mobile operating systems like Android or iOS. Feature phones typically provide voice calling and text messaging functionality as well as basic multimedia and Internet capabilities and other services offered by the user’s wireless service provider. †

Feature testing

→ Feature detection

Federal Information Processing Standard

A publicly announced standard developed by the National Institute of Standards and Technology (NIST) for use in computer systems by non-military American government agencies and government contractors. FIPS standards are issued to establish requirements for purposes such as ensuring computer security and interoperability, and are intended for cases in which suitable

industry standards do not already exist. Many FIPS specifications are modified versions of standards used in the technical communities, such as the American National Standards Institute (ANSI), the Institute of Electrical and Electronics Engineers (IEEE), and the International Organization for Standardization (ISO). † i is.gd/Obox4z

Federated Learning of Cohorts

A type of web tracking through federated learning. FLoC groups people into “cohorts” based on their browsing history for the purpose of interest-based advertising. Google began testing the technology in the Chrome browser in March 2021 as a replacement for third-party cookies; in July 2021, Google quietly suspended development. † i github.com/WICG/floc

Federation

A group of computing or network providers agreeing upon standards of operation in a collective fashion. The term may be used when describing the interoperation of distinct, formally disconnected, telecommunications networks that may have different internal structures; “federation” may also be referred to when groups attempt to delegate collective authority of development, in order to prevent fragmentation. †

Feed

A data format used for providing users with frequently updated content. Content distributors syndicate a web feed, thereby allowing users to subscribe to a channel by adding the feed resource address to a news aggregator client (also called a feed reader or a news reader). Users typically subscribe to a feed by manually entering the URL of a feed, clicking a link in a web browser, or by dragging the link from the web browser to the aggregator. The kinds of content delivered by a web feed are usually HTML (web page content) or links to web pages and digital media. Common feed formats are RSS, Atom, and JSON Feed. †

Feed reader

→ News aggregator

Fetch API

An interface for fetching resources across a network. The Fetch API is comparable to XMLHttpRequest, but provides a more powerful and flexible feature set building on a generic definition of Request and Response objects. ‡ i fetch.spec.whatwg.org

FID → First Input Delay

FIFO

→ First In, First Out

Figma

A primarily web-based vector graphics editor and prototyping tool, with additional features enabled by desktop applications for macOS and Windows. The Figma Mirror companion apps for Android and iOS allow viewing Figma prototypes in real-time on mobile devices. The feature set of Figma focuses on use in user interface and user experience design, with an emphasis on real-time collaboration. Figma was released in 2016. † i figma.com

File A computer resource for recording data discretely in a computer storage device. Just as words can be written to paper, so can information be written to a computer file. †

File locking

A mechanism that restricts access to a computer file by allowing only one user or process to access it in a specific time. Systems implement locking to prevent the classic interceding update

scenario, which is a typical example of a race condition, by enforcing the serialization of update processes to any given file. †

File manager

A computer program that provides a user interface to manage files and folders. The most common operations performed on files or groups of files include creating, opening (e.g., viewing, playing, editing, or printing), renaming, moving or copying, deleting and searching for files, as well as modifying file attributes, properties, and file permissions. †

File system

A software that controls how data is stored and retrieved. Without a file system, data placed in a storage medium would be one large body of data with no way to tell where one piece of data stops and the next begins. Taking its name from the way paper-based data management system is named, each group of data is called a file. There are many different kinds of file systems. Each one has different structure and logic, properties of speed, flexibility, security, or size. †

File Transfer Protocol

A standard network protocol used for the transfer of computer files between a client and server on a computer network. FTP is built on a client-server model architecture using separate control and data connections between the client and the server. FTP users may authenticate themselves with a clear-text sign-in protocol, normally in the form of a username and password, but can connect anonymously if the server is configured to allow it. FTP was not designed to be a secure protocol, and has many security weaknesses. †

Fingerprinting

In computing in general, a procedure that maps an arbitrarily large data item (such as a computer file) to a much shorter bit string, its fingerprint, that uniquely identifies the original data for all practical purposes just as human fingerprints uniquely identify people. This fingerprint may be used for data de-duplication purposes. This kind of fingerprinting is also referred to as file fingerprinting, data fingerprinting, or structured data fingerprinting. †

In computer security, information collected about a remote computing device for the purpose of identification. Fingerprints can be used to fully or partially identify individual users or devices even when persistent cookies (and zombie cookies) cannot be read or stored in the browser, the client IP address is hidden, and even if one switches to another browser on the same device. This may allow a remote application to detect and prevent online identity theft and credit card fraud, but also to compile long-term records of individuals' browsing histories even when they are attempting to avoid tracking. †

FIPS

→ Federal Information Processing Standard

Firebird

→ Firefox

Firefox

A cross-platform web browser. Firefox was developed by the Mozilla Foundation and its subsidiary, Mozilla Corporation, and first released in 2002, named "Phoenix." From 2003 to 2004, Phoenix was called "Firebird" before being renamed to "Firefox." i mozilla.org/firefox

First Contentful Paint

The time when the browser renders the first bit of content from the DOM, providing the first feedback to the user that the page is loading. The question “Is it happening?” is “yes” when the first contentful paint completes. ‡

First CPU Idle

The time when a page is minimally interactive, or when the window is quiet enough to handle user input. It is a non-standard Google web performance metric. Generally, it occurs when most, but not necessarily all visible UI elements are interactive, and the user interface responds, on average, to most user input within 50 ms. ‡

First In, First Out

A method for organizing and manipulating a data buffer, where the oldest (first) entry, or “head” of the queue, is processed first. It is analogous to processing a queue with first-come, first-served (FCFS) behavior, where the people leave the queue in the order in which they arrive. †

First Input Delay

The time from when a user first interacts with a site (i.e., when they click a link, tap on a button, or use a custom, JavaScript-powered control) to the time when the browser is able to respond to that interaction. It is the length of time, in milliseconds, between the first user interaction on a web page and the browser’s response to that interaction. Scrolling and zooming are not included in this metric. ‡

First Interactive

→ First CPU Idle

First Meaningful Paint

The paint after which the biggest above-the-fold layout change has happened and web fonts have loaded. It is when the answer to “Is it useful?” becomes “yes,” that is, upon first meaningful paint completion. ‡

First Paint

The time between navigation and when the browser renders the first pixels to the screen, rendering anything that is visually different from what was on the screen prior to navigation. It answers the question “Is it happening?” ‡

First Public Working Draft

The first official version of a World Wide Web Consortium (W3C) Working Draft.

First-class function

A function that is treated like any other variable in the respective language. ‡

First-order function

→ First-class function

Fitts’s Law

A predictive model of human movement primarily used in human-computer interaction and ergonomics. This scientific law predicts that the time required to rapidly move to a target area is a function of the ratio between the distance to the target and the width of the target. Fitts’s Law is used to model the act of pointing, either by physically touching an object with a hand or finger, or virtually, by pointing to an object on a computer monitor using a pointing device. Fitts’s Law has been shown to apply under a variety of conditions. †

Fixed

A CSS positioning scheme in which an element behaves as if it was set to `absolute` positioning, yet its containing block is the viewport.

A web design approach in which page elements have a fixed as opposed to a variable width. Outdated with the popularity of mobile devices and the concept of responsive design.

Flame graph

A flame-like visualization method for software profiling. [i is.gd/EnyPjs](https://is.gd/EnyPjs)

Flash

A deprecated multimedia software platform used for the production of animations, games, and applications. Flash was first released in 1993 (SmartSketch), rebranded in 1995 (FutureSplash Animator) and, after being bought by Macromedia, again renamed in 1996 (Macromedia Flash). Although Flash was previously a dominant platform for online multimedia content, it has been abandoned as Adobe, who purchased Macromedia in 2005, favored a transition to HTML. †

Flash of Faux Text

The effect when a browser switches from a fallback font to a particular web font before loading and applying yet other fonts.

Flash of Invisible Text

The effect when a browser hides text until the respective web font is loaded, possibly leading to invisible content.

Flash of Unstyled Content

→ Flash of Unstyled Text

Flash of Unstyled Text

The effect when a web page appears briefly with the browser's default styles prior to loading an external style sheet, due to the web browser engine rendering the page before all information is retrieved. The page corrects itself as soon as the style rules are loaded and applied; however, the shift may be distracting. †

Flash Player

A software for using content created on the Adobe Flash platform, including viewing multimedia contents, executing rich Internet applications, and streaming audio and video. Flash Player can run from a web browser as a browser plugin or on supported mobile devices. It was created by Macromedia and has been developed and distributed by Adobe since Adobe acquired Macromedia in 2005. Support for Flash Player ended at the end of 2020. †

Flat Design

A minimalist design language and style that emphasizes the use of simple elements and typography as well as flat colors. The emergence and popularization of the International Typographic Style (Swiss Style) during the 1950s and 1960s is regarded as the starting point of Flat Design. †

Flex

A new value (`flex`) added to the CSS `display` property. Along with `inline-flex` it causes the element that it applies to to become a flex container, and the element's children to each become a flex item. The items then participate in flex layout, and all of the properties defined in the CSS Flexible Box Layout Module may be applied. ‡

→ Flexbox

Flexbox

A CSS web layout model for displaying items in a single dimension, as a row or as a column. In the specification for the CSS Flexible Box Layout Module, Flexbox is described as a layout model for user interface design. The key feature of Flexbox is that items in a flex layout can grow and shrink. Space can be assigned to the items themselves, or distributed between or around the items. Flexbox also enables alignment of items on the main or cross axis, thus providing a high level of control over the size and alignment of a group of items. † [i w3.org/TR/css-flexbox-1](http://www.w3.org/TR/css-flexbox-1)

Float

A single precision, 32-bit floating-point data type.

A mechanism for visual formatting in CSS building on the `float` property, allowing content to flow along an element's sides.

FLoC

→ Federated Learning of Cohorts

Flock

A discontinued web browser that specialized in providing social networking and Web 2.0 facilities built into its user interface. Flock was released in 2005 and discontinued in 2011. †

FLOSS

→ Free/Libre and Open Source Software

Flow content

An HTML content type that includes most HTML elements.

Flow of control

→ Control flow

Fluent Design System

A design language developed in 2017 by Microsoft. Fluent Design is a revamp of Microsoft Design Language 2 that includes guidelines for the designs and interactions used within software designed for all Windows 10 devices and platforms. The system is based on five key components: Light, Depth, Motion, Material, and Scale. The new design language includes more prominent use of motion, depth, and translucency effects. †

Fluid

→ Liquid

FMP

→ First Meaningful Paint

FOAF

→ Friend of a Friend

FOFT

→ Flash of Faux Text

Fold

The imaginary separator between the visible and the invisible part of a web page.

FOIT

→ Flash of Invisible Text

Folksonomy

The system in which users apply public tags to online items, typically to make those items easier for themselves or others to find later. Over time, this can give rise to a classification system based on those tags and how often they are applied or searched for, in contrast to a taxonomic classification designed by the owners of the content and specified when it is published. Folksonomies are also known as collaborative tagging, social classification, social indexing, and social tagging. †

Font

With the advent of digital typography, “font” is frequently synonymous with “typeface.” Each style is in a separate font file—for instance, the typeface Bulmer may include the fonts “Bulmer Roman,” “Bulmer,” “Bulmer Bold,” and “Bulmer Extended,” but the term “font” might be applied either to one of these alone or to the whole typeface. In both traditional typesetting and modern usage, “font” also refers to the delivery mechanism of the typeface design. In traditional typesetting, a font would be made from metal or wood. Today, a font is a digital file. †

Font Awesome

An icon toolkit based on CSS. Font Awesome was first released in 2012. i fontawesome.com

Font block period

A part of the font display timeline that governs that if a particular font face is not loaded, any element attempting to use it must render an invisible fallback font face. If the font face successfully loads during this period, it is used normally. ‡

Font failure period

A part of the font display timeline that governs that if a particular font face is not loaded, the user agent treats it as a failed load causing normal font fallback. ‡

Font subsetting

The use of only the glyphs and features needed from a given font.

Font swap period

A part of the font display timeline that governs that if a particular font face is not loaded, any element attempting to use it must render a fallback font face. If the font face successfully loads during this period, it is used normally. ‡

Foobar

Meta-syntactic variables and placeholder names (“foobar”, “foo”, “bar”, etc.) used in computer programming and documentation when a concept is to be demonstrated and the respective variable’s, function’s, or command’s exact identity is unimportant. †

for → Loop

foreach

→ Loop

Foreign key

A set of attributes in a database table that refers to the primary key of another table. The foreign key links these two tables. †

Fork

The taking of a copy of source code from one software package and starting independent development on it, creating a distinct and separate piece of software. A fork can imply not

merely a development branch, but also a split in the developer community, a form of schism.

†

Form

An interface that allows to enter data that is sent to a server for processing. Forms can resemble paper or database forms because web users fill out the forms using checkboxes, radio buttons, or text fields. In HTML, forms are set up using the `form` and related elements. †

Formatting context

A concept that governs how boxes are laid out with CSS. There are different formatting contexts, like block formatting context, inline formatting context, and table formatting context.

Formatting Output Specification Instance

A style sheet language for SGML and, later, XML. FOSI was developed in the 1990s by the U.S. Department of Defense to control the pagination and layout of SGML and XML technical data. FOSI style sheets are themselves written in SGML, an approach that would later be adopted by XSL. †

Forward compatibility

A design characteristic that allows a system to accept input intended for a later version of itself. The concept can be applied to entire systems, telecommunication signals, electrical interfaces, data communication protocols, file formats, and programming languages. A standard supports forward compatibility if a product that complies with earlier versions can “gracefully” process input designed for later versions of the standard, ignoring new parts which it does not understand. †

Forward proxy

→ Proxy server

Forward secrecy

A feature of specific key agreement protocols that gives assurances that session keys will not be compromised even if long-term secrets used in the session key exchange are compromised. For HTTPS, the long-term secret is typically the private signing key of the server. The value of forward secrecy is that it protects past communication, yet it also depends on the capabilities of the adversary. †

FOSI

→ Formatting Output Specification Instance

FOSS

→ Free and Open Source Software

FOUC

→ Flash of Unstyled Content

FOUT

→ Flash of Unstyled Text

FPS → Frames per second

FPWD

→ First Public Working Draft

FQDN

→ Fully qualified domain name

Fragment identifier

A string of characters that refers to a resource that is subordinate to another, primary resource. The primary resource is identified by a Uniform Resource Identifier (URI), and the fragment identifier points to the subordinate resource. The fragment identifier introduced by a hash mark (#) is the optional last part of a URL for a document. It is typically used to identify a portion of that document. The hash mark separator is not part of the fragment identifier. †

Frame

A part of a web page or browser window which displays content independent of its container, with the ability to load content independently. The HTML or media elements shown in a frame may come from a different website as the other elements of content on display, although this practice, known as framing, is today often regarded as a violation of same-origin policy and has been considered a form of copyright infringement. †

Frame busting

→ Framekiller

Frame rate

The frequency (rate) at which consecutive images called frames appear on a display. The term applies equally to film and video cameras, computer graphics, and motion capture systems. Frame rate may also be called the frame frequency, and be expressed in Hertz. †

Framekiller

A technique used by websites and applications to prevent their web pages from being displayed within a frame, to avoid being displayed without permission or for malicious purposes, like as part of a clickjacking attack. †

Frames per second

→ Frame rate

Framework

→ HTML/CSS framework

→ JavaScript framework

→ Software framework

→ Web framework

Frameset

A group of named frames which can point to web pages or media. †

Free and Open Source Software

Software that can be classified as both free software and open source software, that is, anyone is freely licensed to use, copy, study, and change the software in any way, and the source code is openly shared so that people are encouraged to voluntarily improve the design of the software. This is in contrast to proprietary software, where the software is under restrictive copyright licensing and the source code is usually hidden from the users. †

Free Software Foundation

A non-profit organization that supports the free software movement and which promotes the universal freedom to study, distribute, create, and modify computer software, with the organization's preference for software being distributed under copyleft ("share alike") terms. The FSF was founded in 1985 by Richard Stallman. † i fsf.org

Free variable

A notation (symbol) that specifies places in an expression where substitution may take place and is not a parameter of this or any container expression. Some older books use the terms *real variable* and *apparent variable* for *free variable* and *bound variable*, respectively. The idea is related to a placeholder (a symbol that will later be replaced by some literal string), or a wildcard character that stands for an unspecified symbol. †

Friend of a Friend

A machine-readable ontology describing persons, their activities, and their relations to other people and objects. Anyone can use FOAF to describe themselves. FOAF allows groups of people to describe social networks without the need for a centralized database. FOAF is a descriptive vocabulary expressed using the Resource Description Framework (RDF) and the Web Ontology Language (OWL). † i foaf-project.org

Frontend

The presentation layer of a piece of software, usually an abstraction that simplifies the underlying component by providing a user-friendly interface. In the client-server model, the client is considered the front end, even when some presentation work is done on the server itself. †

FrontPage

A discontinued WYSIWYG HTML editor and website administration tool from Microsoft for the Microsoft Windows line of operating systems. It was branded as part of the Microsoft Office suite from 1997 to 2003. Microsoft FrontPage has since been replaced by Microsoft Expression Web and SharePoint Designer, which were first released in 2006 alongside Microsoft Office 2007, but these two products were also discontinued. †

fs → File system

FS → Forward secrecy

FSF → Free Software Foundation

FTP

→ File Transfer Protocol

FTP over SSH

The practice of tunneling a normal FTP session over a Secure Shell connection. †

FTP Secure

→ FTPS

FTP-SSL

→ FTPS

FTPS

An extension to the commonly used File Transfer Protocol (FTP) that adds support for the Transport Layer Security (TLS) and, formerly, the Secure Sockets Layer (SSL, which is now prohibited by RFC 7568) cryptographic protocols. FTPS should not be confused with the SSH File Transfer Protocol (SFTP), a secure file transfer subsystem for the Secure Shell (SSH) protocol with which it is not compatible; it is also different from FTP over SSH. †

Fugu

A Google project designed to close the capabilities gap between web and native apps. Fugu provides or aims to provide APIs that allow web apps to, for example, share information (Web

Share API), pick contacts (Contact Picker API), or process OTP messages (SMS Receiver API).
i.is.gd/Yyn0oQ

Full Service

A web agency term for the ability to provide all the services for an entire product lifecycle, like website conception, design, development, maintenance, and optimization.

Full Stack

→ Solution stack

Full stack developer

A developer who can handle all aspects of website or app development, that is, including both frontend and backend development.

A developer who masters a particular solution stack.

Fully qualified domain name

A domain name that specifies its exact location in the tree hierarchy of the Domain Name System (DNS). A fully qualified domain name specifies all domain levels, including the top-level domain and the root zone. A fully qualified domain name is distinguished by its lack of ambiguity, because it can be interpreted only in one way. It usually consists of a hostname and at least one higher-level domain (label) separated by the symbol “.”, and always ends in the top-level domain. †

Function

A code snippet that can be called by other code or by itself, or a variable that refers to the function. When a function is called, arguments are passed to the function as input, and the function can optionally return a value. A function in JavaScript is also an object. A function name is an identifier included as part of a function declaration or function expression. The function name’s scope depends on whether the function name is a declaration or expression. ‡

Function as a Service

A category of cloud computing services that provides a platform allowing customers to develop, run, and manage application functionalities without the complexity of building and maintaining the infrastructure typically associated with developing and launching an app. Building an application following this model is one way of achieving a “serverless” architecture, and is typically used when building microservices applications. AWS Lambda was the first FaaS offering by a large public cloud vendor. †

Function binding

The creation of a new function using the `bind()` method.

function*

→ Generator function

Functional programming

A programming paradigm that treats computation as the evaluation of mathematical functions and avoids changing-state and mutable data. Functional programming is a declarative programming paradigm in that programming is done with expressions or declarations instead of statements. In functional code, the output value of a function depends only on its arguments, so calling a function with the same value for an argument always produces the same result. This is in contrast to imperative programming where, in addition to a function’s arguments, global

program state can affect a function's resulting value. One of the key motivations for functional programming is making a program easier to understand by eliminating changes in state that do not depend on function inputs, so-called side effects. †

Functional testing

A quality assurance (QA) process and a type of black-box testing that bases its test cases on the specifications of the software component under test. Functions are tested by feeding them input and examining the output, and internal program structure is rarely considered (unlike white-box testing). Functional testing is conducted to evaluate the compliance of a system or component with specified functional requirements. Functional testing usually describes what a system does. †

FutureSplash

→ Flash

Fuzz testing

→ Fuzzing

Fuzzing

An automated software testing technique that involves providing invalid, unexpected, or random data as inputs to a computer program. The program is then monitored for exceptions such as crashes, failed code assertions, or memory leaks. †



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

G

Gamma

A non-linear operation used to encode and decode luminance or tristimulus values in video or still image systems. Gamma encoding of images is used to optimize the usage of bits when encoding an image, or bandwidth used to transport an image, by taking advantage of the non-linear manner in which humans perceive light and color. †

Garbage collection

A form of automatic memory management. The garbage collector, or just collector, attempts to reclaim garbage, or memory occupied by objects that are no longer in use by the program. Garbage collection is essentially the opposite of manual memory management, which requires the programmer to specify which objects to deallocate and return to the memory system. However, many systems use a combination of approaches, including other techniques such as stack allocation and region inference. †

Garbage In, Garbage Out

The concept that flawed, or nonsense (garbage) input data produces nonsense output. The principle also applies more generally to analysis and logic, in that arguments are unsound if their premises are flawed. †

Gateway

A piece of networking hardware or software used in telecommunications networks that allows data to flow from one discrete network to another. Gateways are distinct from routers or switches in that they communicate using more than one protocol to connect multiple networks, and can operate at any of the seven layers of the Open Systems Interconnection (OSI) model. †

Gatsby

A React-based frontend framework for creating websites, and a serverless cloud platform to build, deploy, and host the respective websites. Gatsby was released in 2017. i gatsbyjs.com

GCP

→ Google Cloud Platform

GDPR

→ General Data Protection Regulation

Gecko

A browser engine developed by Mozilla. It is used in the Firefox browser, the Thunderbird email client, and many other projects. Gecko is designed to support open Internet standards, and is used by different applications to display web pages and, in some cases, an application's user interface itself (by rendering XUL). Gecko offers a rich programming API that makes it suitable for a wide variety of roles in Internet-enabled applications. † i developer.mozilla.org/Mozilla/Gecko

General Data Protection Regulation

A regulation in EU law on data protection and privacy in the European Union (EU) and the European Economic Area (EEA). The GDPR also addresses the transfer of personal data outside the EU and EEA areas. It aims primarily to give control to individuals over their personal data and to simplify the regulatory environment for international business by unifying the regulation within the EU. Superseding the Data Protection Directive 95/46/EC, the GDPR contains provisions and requirements related to the processing of personal data of individuals (formally called data subjects) who reside in the EEA, and applies to any enterprise—regardless of its location and the data subjects’ citizenship or residence—that is processing the personal information of data subjects inside the EEA. † [i gdpr-info.eu](http://gdpr-info.eu)

General Image Manipulation Program

→ GIMP

General Responsibility Assignment Software Patterns

Guidelines for assigning responsibility to classes and objects in object-oriented design. The different patterns and principles used in GRASP are controller, creator, indirection, information expert, low coupling, high cohesion, polymorphism, protected variations, and pure fabrication.

†

Generator

→ Generator function

Generator function

A function that can be exited and later re-entered, and that can therefore be used to generate a sequence of results instead of a single result. The context of a generator function (variable bindings) is saved across re-entrances. Generators are particularly useful for asynchronous programming as they mitigate problems with callbacks, such as “callback hell” and Inversion of Control (IoC). ‡

Generic top-level domain

One of the categories of top-level domains (TLDs) maintained by the Internet Assigned Numbers Authority (IANA) for use in the Domain Name System of the Internet. A top-level domain is the last level of every fully qualified domain name. gTLDs are called generic for historic reasons; initially, they were contrasted with country-specific TLDs in RFC 920. The core group of generic top-level domains consists of the .com, .info, .net, and .org domains. †

Geofence

A virtual perimeter for a real-world geographic area. A geofence could be dynamically generated (as in a radius around a point location) or match a predefined set of boundaries (such as neighborhood boundaries). The use of a geofence is called geofencing, and one example of use involves a location-aware device entering or exiting a geofence. This activity could trigger an alert to the device’s user as well as messaging to the geofence operator. †

Geolocation API

An effort by the World Wide Web Consortium (W3C) to standardize an interface to retrieve the location information for a client-side device. The Geolocation API defines an ECMAScript-compliant set of objects that give the client’s device location through the consulting of location information servers. The most common sources of location information are IP address, Wi-Fi and Bluetooth MAC address, Wi-Fi connection location, radio-frequency

identification (RFID), and device Global Positioning System (GPS) or GSM/CDMA cell IDs.
† i w3.org/TR/geolocation-API

Geturl

→ Wget

GIF → Graphics Interchange Format

GIGO

→ Garbage In, Garbage Out

GIMP

A raster graphics editor used for image retouching and editing, free-form drawing, converting between different image formats, and more specialized tasks. GIMP was first released in 1996.
i gimp.org

Git A distributed version control system for tracking changes in source code during software development. Git is designed for coordinating work among programmers, but it can be used to track changes in any set of files. Its goals include speed, data integrity, and support for distributed, non-linear workflows. As with most other distributed version control systems, and unlike most client-server systems, every Git directory on every computer is a full-fledged repository with complete history and full version-tracking abilities, independent of network access or a central server. Git was created in 2005 by Linus Torvalds. † i git-scm.com

GitHub

A company that provides hosting for software development version control using Git. GitHub was founded in 2008 and is a subsidiary of Microsoft, which acquired the company in 2018 for \$7.5 billion. It offers all of the distributed version control and source code management (SCM) functionality of Git as well as its own features. † i github.com

GitHub Copilot

An artificial intelligence tool developed by GitHub and OpenAI to assist users of Visual Studio Code through code auto-completion. GitHub Copilot was released in 2021. † i copilot.github.com

GitLab

A company providing a web-based DevOps lifecycle tool that includes a Git-repository manager providing wiki, issue tracking, and CI/CD pipeline features. GitLab's software was created in 2011 by Dmitriy Zaporozhets and Valery Sizov. † i gitlab.com

Global

→ Global scope

Global object

An object that always exists in the global scope. In JavaScript, there is always a global object defined. In a web browser, when scripts create global variables, they are created as members of the global object (this is not the case in Node.js). The global object's interface depends on the execution context in which the script is running. ‡

Global scope

The scope that contains, and is visible in, all other scopes. In client-side JavaScript, the global scope is generally the web page inside which all the code is being executed. ‡

Global variable

A variable that is declared in the global scope; in other words, one that is visible from all other scopes. In JavaScript it is a property of the global object. †

Globally unique identifier

→ Universally unique identifier

Glyph

A readable mark of a particular meaning.

GNU

An operating system and extensive collection of computer software. GNU is composed wholly of free software, most of which is licensed under the GNU Project's own General Public License (GPL). "GNU" is a recursive acronym for "GNU's Not Unix," chosen because GNU's design is Unix-like, but differs from Unix by being free software and containing no Unix code. Development of the GNU operating system was initiated by Richard Stallman while at the MIT Artificial Intelligence Laboratory. It was first called the "GNU Project," and announced in 1983.

† i.gnu.org

GNU General Public License

A widely-used free software license that guarantees end users the freedom to run, study, share, and modify the software. The license was originally written by Richard Stallman for the GNU Project, and grants the recipients of a computer program the rights of the Free Software Definition. The GPL is a copyleft license, which means that derivative work must be free software and distributed under the same or equivalent license terms. This is in distinction to permissive free software licenses, of which the BSD licenses and the MIT License are widely-used less-restrictive examples. GPL was the first copyleft license for general use. †

GNU Project

A free software mass collaboration project initiated in 1983 by Richard Stallman. The GNU Project's goal is to give computer users freedom and control in their use of their computers and computing devices by collaboratively developing and publishing software that gives everyone the rights to freely run the software, copy and distribute, study, and modify it. GNU software grants these rights in its license, the GNU General Public License. †

Go A statically typed, compiled programming language developed by Robert Griesemer, Rob Pike, and Ken Thompson, and released by Google in 2009. Go is syntactically similar to C, but with memory safety, garbage collection, structural typing, and CSP-style concurrency. † i.golang.org

A Google-proprietary HTML/CSS framework.

Goanna

A browser engine that is a fork of Mozilla's Gecko. It is used in the Pale Moon browser, the Basilisk browser, and other UXP-based applications. Goanna as an independent fork of Gecko was first released in 2016. †

Golang

→ Go

Golden mean

→ Golden ratio

Golden ratio

A concept from mathematics, two quantities are in the golden ratio if their ratio is the same

as the ratio of their sum to the larger of the two quantities. The golden ratio is an irrational number that is a solution to the quadratic equation $x^2 - x - 1 = 0$, with a value of 1.6180339887... Some artists and architects, including Le Corbusier and Salvador Dalí, have proportioned their works to approximate the golden ratio, believing this proportion to be aesthetically pleasing. †

Golden section

→ Golden ratio

Google Chrome

→ Chrome

Google Cloud Platform

A suite of cloud computing services that runs on the same infrastructure that Google uses for its end user products, such as Google Search, Gmail, or YouTube. Alongside a set of management tools, GCP provides a series of modular cloud services covering computing, data storage, data analytics, and machine learning. † [i cloud.google.com](https://cloud.google.com)

Google Lighthouse

→ Lighthouse

Google QUIC

→ QUIC

Google TalkBack

→ TalkBack

Google Web Server

A proprietary web server software that Google uses for its web infrastructure. GWS is used exclusively inside Google's ecosystem for website hosting. †

Gopher

A communications protocol designed for distributing, searching, and retrieving documents in Internet Protocol networks. The design of the Gopher protocol and user interface is menu-driven, and presented an alternative to the World Wide Web in its early stages, but ultimately fell into disfavor, yielding to the Hypertext Transfer Protocol (HTTP). The Gopher ecosystem is often regarded as the effective predecessor of the World Wide Web. †

GPL

→ GNU General Public License

GPU

→ Graphics Processing Unit

gQUIC

→ Google QUIC

Graceful Degradation

A design philosophy that centers around trying to build a modern website or app that will work in the newest browsers, but falls back to an experience that while not as good still delivers essential content and functionality in older browsers. Polyfills can be used to build in missing features with JavaScript, but acceptable alternatives to features like styling and layout should be provided where possible, for example by using the CSS cascade, or HTML fallback behavior.

‡

Grapheme

The smallest unit of a writing system of any given language. An individual grapheme may

or may not carry meaning by itself, and may or may not correspond to a single phoneme of the spoken language. In other words, a grapheme is a letter or a number (set) of letters that represent a sound (more correctly, phoneme) in a word. Graphemes include alphabetic letters, typographic ligatures, Chinese characters, numerical digits, punctuation marks, and other individual symbols. †

Graphic

→ Image

Graphical User Interface

A form of user interface that allows users to interact with electronic devices through graphical icons and audio indicators such as primary notation, instead of text-based user interfaces, typed command labels, or text navigation. GUIs were introduced in reaction to the perceived steep learning curve of command-line interfaces (CLIs), which require commands to be typed on a computer keyboard. The actions in a GUI are usually performed through direct manipulation of the graphical elements. †

Graphics Interchange Format

A bitmap image format that was developed in 1987 by a team at CompuServe, led by Steve Wilhite. GIF has since come into widespread usage on the World Wide Web due to its wide support and portability between many applications and operating systems. The format supports up to eight bits per pixel for each image, allowing a single image to reference its own palette of up to 256 different colors chosen from the 24-bit RGB color space. It also supports animations and allows a separate palette of up to 256 colors for each frame. These palette limitations make GIF less suitable for reproducing color photographs and other images with color gradients, but it is well-suited for simpler images such as graphics or logos with solid areas of color. †

Graphics Processing Unit

A specialized electronic circuit designed to rapidly manipulate and alter memory to accelerate the creation of images in a frame buffer intended for output to a display device. GPUs are used in embedded systems, mobile phones, personal computers, workstations, and game consoles. Modern GPUs are efficient at manipulating computer graphics and image processing. Their highly parallel structure makes them more efficient than general-purpose central processing units (CPUs) for algorithms that process large blocks of data in parallel. †

GraphQL

A data query and manipulation language for APIs, and a runtime for fulfilling queries with existing data. GraphQL provides an approach to developing web APIs, and has been compared and contrasted with REST and other web service architectures. It allows clients to define the structure of the data required, and the same structure of the data is returned from the server, therefore preventing excessively large amounts of data from being returned. GraphQL was developed internally by Facebook in 2012 before being publicly released in 2015. † [i graphql.org](http://i.graphql.org)

GRASP

→ General Responsibility Assignment Software Patterns

Greasemonkey

A userscript manager made available as a Firefox extension. Greasemonkey enables users to install scripts that make on-the-fly changes to web page content before or after the page is loaded in the browser (also known as augmented browsing). The changes made to the web

pages are executed every time the page is viewed, making them effectively permanent for the user running the script. † i greasespot.net

Greeking

→ Placeholder text

Greenfield project

A project that lacks constraints imposed by prior work. The analogy is to that of construction on greenfield land where there is no need to work within the constraints of existing buildings or infrastructure. †

Grid

In design, a structure (usually two-dimensional) made up of a series of intersecting straight (vertical, horizontal, and angular) or curved lines (grid lines) used to structure content. The grid serves as an armature or framework on which a designer can organize graphic elements (images, glyphs, paragraphs, etc.) in a rational, easy-to-absorb manner. A grid can be used to organize graphic elements in relation to a page, to other graphic elements on the page, or to other parts of the same graphic element or shape. †

In CSS, an element using the `grid` value of the `display` property, for which columns and rows can be specified through the `grid-template-rows` and `grid-template-columns` properties. The grid defined this way is described as an explicit grid. If content is placed outside of this explicit grid, or if auto-placement and the grid algorithm are being relied on, then extra tracks will be created in the implicit grid. The implicit grid is the grid created automatically due to content being added outside of the tracks defined. † i w3.org/TR/css-grid-1

Grid computing

The use of widely distributed computer resources to reach a common goal. A computing grid can be thought of as a distributed system with non-interactive workloads that involve many files. Grid computing is distinguished from conventional high-performance computing systems such as cluster computing in that grid computers have each node set to perform a different task or application. Grid computers also tend to be more heterogeneous and geographically dispersed. †

Grid track

The space between two grid lines. They are defined in the explicit grid by using the `grid-template-columns` and `grid-template-rows` properties or the shorthand `grid` or `grid-template` properties. Tracks are also created in the implicit grid by positioning a grid item outside of the tracks created in the explicit grid. †

gTLD

→ Generic top-level domain

Guetzli

A JPEG encoder developed by Jyrki Alakujala, Robert Obryk, and Zoltán Szabadka, and released by Google in 2017. Guetzli specializes in high-end image quality where it is claimed to produce significantly smaller files than prior encoders at equivalent quality, albeit at very low speed. It is named after the Swiss German expression for biscuits, in line with the names of other compression technology from Google. † i github.com/google/guetzli

gulp

→ gulp.js

gulp.js

A JavaScript toolkit used as a streaming build system (similar to a more package-focused Make) in frontend web development. gulp is a task runner built on Node.js and npm, used for automation of time-consuming and repetitive tasks involved in web development like minification, concatenation, cache busting, unit testing, linting, optimization, etc. It was created in 2013 by Eric Schoffstall. † [i gulpjs.com](http://gulpjs.com)

Gutter

The space between columns of printed text, including the gap between facing pages. †

GUI

→ Graphical User Interface

GUID

→ Globally unique identifier

GWS

→ Google Web Server

gzip

A file format and software application used for file compression and decompression. The program was created by Jean-loup Gailly and Mark Adler as a free software replacement for the compress program used in early Unix systems, and intended for use by GNU (the “g” is from “GNU”). Version 1.0 was released in 1993. gzip is based on the DEFLATE algorithm. † [i gnu.org/software/gzip](http://gnu.org/software/gzip)



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

H

Hackathon

A Sprint-like event, and often one in which computer programmers and others involved in software development, including graphic designers, interface designers, project managers, domain experts, and others collaborate intensively on software projects. The goal of a hackathon is to create functioning software or hardware by the end of the event. †

Hacker

Any skilled computer expert that uses their technical knowledge to overcome a problem. While “hacker” can refer to any skilled computer programmer, the term has become associated in popular culture with a “security hacker,” someone who, with their technical knowledge, uses bugs or exploits to break into computer systems. †

Haml/HAML

→ HTML Abstraction Markup Language

Handlebars

A templating language. Handlebars templates use expressions in the form of `{{, content, }}`, resembling handlebars. i handlebarsjs.com

Hard reset

An early 2000s reset “style sheet” that resets the margins and paddings of all elements (`* { margin: 0; padding: 0; }`).

Hardware security module

A physical computing device that safeguards and manages digital keys and that performs encryption and decryption for digital signatures, authentication, and other cryptographic functions. Hardware security modules traditionally come in the form of a plug-in card or an external device that attaches directly to a computer or network server. †

Hash

→ Number sign

Hash function

Any function that can be used to map data of arbitrary size to fixed-size values. The values returned by a hash function are called hash values, hash codes, digests, or simply hashes. The values are used to index a fixed-size table called a hash table. Use of a hash function to index a hash table is called hashing or scatter storage addressing. Hash functions and their associated hash tables are used in data storage and retrieval applications to access data in a small and nearly constant time per retrieval, and storage space only fractionally greater than the total space required for the data or records themselves. Hashing is a computationally and storage-efficient form of data access. †

Hash table

A data structure that implements an associative array abstract data type, a structure that can

map keys to values. A hash table uses a hash function to compute an index, also called a hash code, into an array of buckets or slots, from which the desired value can be found. In many situations, hash tables turn out to be more efficient than search trees or any other table lookup structure. For this reason, they are widely used in many kinds of computer software, particularly for associative arrays, database indexing, caches, and sets. †

Hash-Based Message Authentication Code

A specific type of message authentication code (MAC) involving a cryptographic hash function and a secret cryptographic key. An HMAC can provide digital signatures using a shared secret instead of public key encryption. It trades off the need for a complex public key infrastructure by delegating the key exchange to the communicating parties, who are responsible for establishing and using a trusted channel to agree on the key prior to communication. †

Hashbang

→ Shebang

Hashtag

A type of metadata tag used on social networks such as Twitter and other microblogging services. It lets users apply dynamic, user-generated tagging that helps other users easily find messages with a specific theme or content. Users create and use hashtags by placing an octothorpe (#, also called a number sign, or pound sign) usually in front of a word or unspaced phrase in a message. Searching for that hashtag yields each message that someone has tagged with it. A hashtag archive is consequently collected into a single stream under the same hashtag.

†

hasLayout

A peculiarity in Internet Explorer ≤8 that influences how page elements are drawn or interact. Though some elements “automatically” “have layout,” hasLayout can also be forced by particular CSS properties and declarations. [i is.gd/KcpK3B](https://is.gd/KcpK3B)

HCI

→ Human-Computer Interaction

HDD

→ Hypothesis-Driven Development

Head-of-line blocking

A performance-limiting phenomenon that occurs when a line of packets is held up by the first packet. Examples include input buffered network switches, out-of-order delivery, and multiple requests in HTTP pipelining. †

Heading content

Content that defines the header of a section (whether explicitly marked up using sectioning content elements, or implied by the heading content itself), marked up through the h1, h2, h3, h4, h5, h6, and hgroup elements. §

Headless

Software capable of working without a graphical user interface. †

Health check

Typically recurring, automated requests to confirm that a machine or application is available and functional.

HEIC

→ High Efficiency Image Coding

HEIF

→ High Efficiency Image File Format

Helper class

In software development (object-oriented programming), a class that is used to assist in providing some functionality, which is not the main goal of the application or class in which it is used. An instance of a helper class is called a helper object. †

In web development (CSS), a class that has no functional bearing and carries no particular meaning (like `.aux` or `.alt`) but serves as an intentional hook for complementary or alternative styling.

Heterogenous migration

A migration where source and target systems are different, as with different database engines.

Hex

→ Hexadecimal

Hex triplet

A six-digit, three-byte hexadecimal number used in HTML, CSS, SVG, and other computing applications to represent colors. The bytes represent the red, green, and blue components of the color. Each byte represents a number in the range 00 to FF (in hexadecimal notation), or 0 to 255 in decimal notation. This represents the least (0) to the most (255) intensity of each of the color components. Thus web colors specify colors in the 24-bit RGB color scheme. The hex triplet is formed by concatenating three bytes in hexadecimal notation, in the following order: byte 1—red value (color type red); byte 2—green value (color type green); and byte 3—blue value (color type blue). †

Hexadecimal

A positional system that represents numbers using a base of 16. Unlike the common way of representing numbers with 10 symbols, hexadecimal uses 16 distinct symbols, most often the symbols “0”–“9” to represent values 0–9, and “A”–“F” (or alternatively “a”–“f”) to represent values 10–15. †

Hick’s Law

A model describing the time it takes for a person to make a decision as a result of the possible choices they have, asserting that increasing the number of choices will increase decision time logarithmically. Hick’s Law assesses cognitive information capacity in choice reaction experiments. The amount of time taken to process a certain amount of bits in the Hick-Hyman law is known as the rate of gain of information. †

Hick-Hyman Law

→ Hick’s Law

Hidden Web

→ Deep Web

High Efficiency Image Coding

→ High Efficiency Image File Format

High Efficiency Image File Format

A file format for individual images and image sequences. It was developed by the Moving

Picture Experts Group (MPEG) and is defined by MPEG-H Part 12 (ISO/IEC 23008-12). The MPEG group claims that twice as much information can be stored in a HEIF image as in a JPEG image of the same size, resulting in a better quality image. HEIF also supports animation, and is capable of storing more information than an animated GIF at a small fraction of the size.

†

Higher-order component

A function that takes a component and returns a new component.

Higher-order function

A function that either takes one or more functions as arguments (procedural parameters) or that returns a function as its result. †

HIP → Host Identity Protocol

Hit A request to a web server for a file (such as a web page, image, script, or style sheet). There may be many hits per page view since an HTML page can contain multiple files, such as images. †

HITS

→ Hyperlink-Induced Topic Search

HMAC

→ Hash-Based Message Authentication Code

HMAC-Based One-Time Password

A one-time password (OTP) algorithm based on hash-based message authentication codes (HMAC). HOTP is a cornerstone of the Initiative for Open Authentication (OATH). It was published in 2005 as an informational IETF RFC 4226. †

HOC

→ Higher-order component

Hoisting

A general way of thinking about how execution contexts (specifically the creation and execution phases) work in JavaScript. While conceptually, a strict definition of hoisting suggests that variable and function declarations are physically moved to the top of the code, the variable and function declarations are instead put into memory during the compile phase. Only declarations are hoisted, not initializations. ‡

HOL blocking

→ Head-of-line blocking

Holey

A property of an array that misses elements, and cannot be optimized as effectively anymore.

Home page

The initial or main web page of a website or browser. The initial page of a website is sometimes called main page as well. †

Home Page Reader

A discontinued self-voicing web browser designed for people who are blind. It was developed by IBM until 2006. †

Home screen

The main screen on a mobile operating system or computer program. Home screens are not identical because users can rearrange icons as they please, and home screens often differ across

operating systems. Almost every smartphone has some form of home screen, which typically displays links to applications, settings, and notifications. †

Homepage

→ Website

HomeSite

A discontinued HTML editor originally developed in 1996 by Nick Bradbury. Unlike WYSIWYG HTML editors such as FrontPage and Dreamweaver, HomeSite was designed for direct editing, or “hand-coding,” of HTML and other website languages. After a successful partnership with the company to distribute it alongside its own competing Dreamweaver software, HomeSite was acquired by Macromedia in 2001, after which elements of the software were integrated into Dreamweaver. Following the acquisition of Macromedia by Adobe, the company announced in 2009 that HomeSite would be discontinued. †

Homogenous migration

A migration where source and target systems are of the same type.

Hooking

A range of techniques used to alter or augment the behavior of an operating system, of applications, or of other software components by intercepting function calls or messages or events passed between software components. Code that handles such intercepted function calls, events, or messages is called a hook. Hooking is used for many purposes, including debugging and extending functionality. †

Hop limit

→ Time to Live

Horizontal scaling

An increase in a number of resources, e.g., by adding more hard drives or servers.

Host

A computer or other device connected to a computer network. A host may work as a server offering information resources, services, and applications to users or other hosts on the network. Hosts are assigned at least one network address. Network hosts that participate in applications that use the client-server model of computing are classified as server or client systems. Network hosts may also function as nodes in peer-to-peer applications, in which all nodes share and consume resources in an equipotent manner. †

Host Identity Protocol

A host identification technology for use on Internet Protocol (IP) networks, such as the Internet. The Internet has two main name spaces, IP addresses and the Domain Name System. HIP separates the end-point identifier and locator roles of IP addresses. It introduces a Host Identity (HI) name space, based on a public key security infrastructure. The Host Identity Protocol provides secure methods for IP multihoming and mobile computing. †

Hostname

A label that is assigned to a device connected to a computer network and that is used to identify the device in various forms of electronic communication, such as the World Wide Web. Hostnames may be simple names consisting of a single word or phrase, or they may be structured. Internet hostnames may have appended the name of a Domain Name System (DNS) domain, separated from the host-specific label by a period (“dot”). In the latter form, a

hostname is also called a domain name. If the domain name is completely specified, including a top-level domain of the Internet, then the hostname is said to be a fully qualified domain name (FQDN). †

Hot data

Frequently accessed data.

Hot linking

→ Inline linking

HOTP

→ HMAC-Based One-Time Password

Hotwire

→ HTML over the wire

Houdini

A set of low-level APIs that give developers the power to extend CSS, providing the ability to hook into the styling and layout process of a browser's rendering engine. Houdini gives developers access to the CSS Object Model (CSSOM), enabling developers to write code the browser can parse as CSS. The benefit of Houdini is that developers can create CSS features without waiting for web standards specifications to define them and without waiting for every browser to fully implement the features. ‡ i ishoudinireadyyet.com

HPR

→ Home Page Reader

HSL

→ Hue, Saturation, Lightness

HSM

→ Hardware security module

HSTS

→ HTTP Strict Transport Security

HSV

→ Hue, Saturation, Value

HTML

→ HyperText Markup Language

HTML 5

→ HTML

HTML Abstraction Markup Language

A templating system that is designed to avoid writing inline code in a web document and make the HTML cleaner. Haml gives the flexibility to have some dynamic content in HTML. Similar to other web languages like PHP, ASP, JSP, and template systems like eRuby, Haml also embeds some code that gets executed during runtime and generates HTML code in order to provide some dynamic content. † i haml.info

HTML over the wire

A term marking the use of HTML instead of JSON to populate web applications, and an umbrella term for Turbo, Stimulus, and Strada, tooling to help use HTML over the wire. Hotwire was presented in 2020 by Basecamp. i hotwired.dev

HTML template

For web components, a way to insert chunks of HTML that are then populated. HTML templates are written using the `template` and `slot` elements.

HTML-in-JS

The writing of HTML code in JavaScript, notably by using the `innerHTML` property.

HTML/CSS framework

A library allowing for easier web design and development using HTML and CSS. Most HTML/CSS frameworks contain at least a grid. More functional frameworks also come with more features and additional JavaScript-based functions, but are mostly design-oriented and focused around interactive UI patterns. This detail differentiates HTML/CSS frameworks from JavaScript frameworks. †

HTML5

→ HTML

HTML5 Boilerplate

An HTML, CSS, and JavaScript frontend template for creating HTML websites with cross-browser capability. † i html5boilerplate.com

HTTP

→ Hypertext Transfer Protocol

HTTP flood attack

A type of distributed denial of service (DDoS) attack in which the attacker makes unwanted GET or POST requests in order to attack a web server or application. These attacks often use interconnected computers that have been taken over with the aid of malware. Instead of using malformed packets, spoofing, or reflection techniques, HTTP floods require less bandwidth to attack the targeted sites or servers. †

HTTP method

An HTTP action to be performed for a given resource. Although they can also be nouns, request methods are sometimes referred to as “HTTP verbs.” Each of them implements a different semantic, but some common features are shared by a group of them: e.g., a request method can be safe, idempotent, or cacheable. The methods are GET, HEAD, POST, PUT, DELETE, CONNECT, OPTIONS, TRACE, and PATCH. ‡

HTTP request method

→ HTTP method

HTTP status code

An HTTP status code is issued by a server in response to a client’s request to the server. The first digit of a status code specifies one of five standard classes of responses. The classes are Informational 1xx, Successful 2xx, Redirection 3xx, Client Error 4xx, and Server Error 5xx. “200 OK,” “301 Moved Permanently,” and “404 Not Found” may be among the most common and known status codes. †

→ 0–9 for various HTTP status codes

HTTP Strict Transport Security

A web security policy mechanism that helps to protect websites against protocol downgrade attacks and cookie hijacking. It allows web servers to declare that web browsers (or other

complying user agents) should interact with it using only HTTPS connections, which provide Transport Layer Security (TLS/SSL), unlike the insecure HTTP protocol used alone. The HSTS policy is communicated by the server to the user agent via an HTTPS response header field named `Strict-Transport-Security`. HSTS policy specifies a period of time during which the user agent should only access the server in a secure fashion. †

HTTP verb

→ HTTP method

HTTP/2

A major revision of the HTTP network protocol. A major goal of HTTP/2 was to decrease latency so as to improve page load speed in web browsers. It derived from the earlier experimental SPDY protocol, originally developed by Google. HTTP/2 was developed by the HTTP Working Group (also called “httpbis,” where “bis” means “second”) of the Internet Engineering Task Force. HTTP/2 is the first new version of HTTP since HTTP 1.1, which was standardized in 1997 by RFC 2068. The HTTP/2 specification was published as in 2015 as RFC 7540. †

HTTP/3

The upcoming third major version of the Hypertext Transfer Protocol, succeeding HTTP/2. HTTP/3 is based on a prior RFC draft, *Hypertext Transfer Protocol (HTTP) over QUIC*. †

httpd.conf

The main configuration file for the Apache HTTP Server. [i is.gd/asNHfP](https://is.gd/asNHfP)

HTTPS

→ Hypertext Transfer Protocol Secure

HTTPS Everywhere

A browser extension for Chrome, Firefox, Opera, Brave, and Firefox for Android, which is developed collaboratively by the Tor Project and the Electronic Frontier Foundation (EFF). HTTPS Everywhere automatically makes websites use a more secure HTTPS connection instead of HTTP, if they support it. HTTPS Everywhere was first released in 2010. † [i eff.org/https-everywhere](https://www.eff.org/https-everywhere)

HubDB

A relational database represented through rows, columns, and cells in a table, comparable to a spreadsheet. [i is.gd/49zeTJ](https://is.gd/49zeTJ)

HubL

→ HubSpot Markup Language

HubSpot Markup Language

A HubSpot-proprietary extension of Jinjava which features markup unique to the HubSpot marketing and sales software.

Hue, Saturation, Lightness

An alternative representation of the RGB color model. †

Hue, Saturation, Value

An alternative representation of the RGB color model. †

Hugo

A static site generator written in Go. Hugo was released in 2013 by Steve Francia. [i gohugo.io](https://gohugo.io)

Human-Computer Interaction

The study of the design and use of computer technology, focused on the interfaces between people (users) and computers. Researchers in the field of HCI observe the ways in which humans interact with computers and design technologies that let humans interact with computers in novel ways. As a field of research, human-computer interaction is situated at the intersection of computer science, behavioral sciences, design, media studies, and several other fields of study. †

humans.txt

An initiative acknowledging the people behind a website, promoting a “humans.txt” text file that features more information on the respective contributors. [i humanstxt.org](http://humanstxt.org)

Hungarian notation

An identifier naming convention in computer programming, in which the name of a variable or function indicates its intention or kind, and in some dialects its type (like “bBusy”, “cApples”, or “rgStudents”). The original Hungarian notation uses intention or kind in its naming convention and is sometimes called “Apps Hungarian” as it became popular in the Microsoft Apps division in the development of Word, Excel, and other apps. †

Hydration

Client-side DOM extension and manipulation of server-rendered static HTML.

Hype cycle

A branded graphical presentation developed and used by the research, advisory, and information technology firm Gartner to represent the maturity, adoption, and social application of specific technologies. The hype cycle claims to provide a graphical and conceptual presentation of the maturity of emerging technologies through five phases (Technology Trigger, Peak of Inflated Expectations, Trough of Disillusionment, Slope of Enlightenment, and Plateau of Productivity). †

Hyperlink

→ [Link](#)

Hyperlink-Induced Topic Search

A link analysis algorithm that rates web pages, developed in 1999 by Jon Kleinberg. The idea behind Hubs and Authorities, as HITS is also known, stemmed from a particular insight into the creation of web pages when the Internet was originally forming; that is, certain web pages, known as hubs, served as large directories that were not authoritative in the information that they held, but were used as compilations of a broad catalog of information that led users to other authoritative pages. In other words, a good hub represents a page that pointed to many other pages, while a good authority represents a page that is linked by many different hubs. †

Hypertext

Text displayed on a computer display or other electronic devices with references (hyperlinks) to other text that the reader can immediately access. Hypertext documents are interconnected by hyperlinks, which are typically activated by a mouse click, keypress set, or by touching the screen. Apart from text, the term “hypertext” is also sometimes used to describe tables, images, and other presentational content formats with integrated hyperlinks. Hypertext is one of the key underlying concepts of the World Wide Web. †

HyperText Markup Language

The standard markup language for documents designed to be displayed in a web browser. HTML can be used together with formatting languages such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML and its elements describe the structure of a web page semantically, and HTML originally included cues for the appearance of the document. HTML was first presented in 1991. † i.html.spec.whatwg.org

Hypertext Preprocessor

A general-purpose programming language originally designed for web development. PHP was created in 1994 by Rasmus Lerdorf; the PHP reference implementation is now produced by The PHP Group. PHP originally stood for “Personal Home Page,” but it now stands for the recursive initialism “Hypertext Preprocessor.” PHP code may be executed with a command-line interface (CLI), embedded into HTML code, or used in combination with various web template systems, web content management systems, and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in a web server or as a Common Gateway Interface (CGI) executable. The web server outputs the results of the interpreted and executed PHP code, which may be any type of data, such as generated HTML code or binary image data. † i.php.net

Hypertext Transfer Protocol

An application protocol for distributed, collaborative, hypermedia information systems. HTTP is the foundation of data communication for the World Wide Web, where hypertext documents include hyperlinks and references to other resources. Development of HTTP was initiated in 1989 by Tim Berners-Lee at CERN, while the development of early HTTP Requests for Comments (RFCs) was a coordinated effort by the Internet Engineering Task Force (IETF) and the World Wide Web Consortium (W3C), with work later moving to the IETF. †

Hypertext Transfer Protocol Secure

An extension of the Hypertext Transfer Protocol (HTTP). HTTPS is used for secure communication over a computer network and widely employed on the Internet. In HTTPS, the communication protocol is encrypted using Transport Layer Security (TLS) or, formerly, its predecessor, Secure Sockets Layer (SSL). The protocol is therefore also often referred to as HTTP over TLS, or HTTP over SSL. The principal motivations for HTTPS are authentication of the accessed website, protection of privacy, and integrity of the exchanged data while in transit. The bidirectional encryption of communications between a client and server protects against eavesdropping and tampering of the communication. The authentication aspect of HTTPS requires a trusted third party to sign server-side digital certificates, which historically was expensive. †

Hypervisor

Computer software, firmware, or hardware that creates and runs virtual machines. A computer on which a hypervisor runs one or more virtual machines is called a host machine, and each virtual machine is called a guest machine. The hypervisor presents the guest operating systems with a virtual operating platform and manages the execution of the guest operating systems. †

Hypothesis-Driven Development

A product development approach based on continuously running experiments to test hypothe-

ses about a product, its users, and the market.



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

I/O → Input/Output

I18N

→ Internationalization

IA → Information architecture

IaaS

→ Infrastructure as a Service

IAB → In-App Browser

→ Interactive Advertising Bureau

→ Internet Architecture Board

IaC → Infrastructure as Code

IANA

→ Internet Assigned Numbers Authority

IBM Home Page Reader

→ Home Page Reader

IBM WebExplorer

→ WebExplorer

ICANN

→ Internet Corporation for Assigned Names and Numbers

Icon

A pictogram or ideogram displayed on a computer screen in order to help the user navigate a computer system. Icons make for a part of the graphical user interfaces of computer systems.

†

Icon font

A fonts that contains symbols and glyphs rather than letters or numbers.

ID → ID selector

→ Identifier

ID selector

A selector that matches an HTML element based on the value of the element's `id` attribute. The selector consists of a “#” followed by the `id` attribute's value. ID selectors have a higher specificity than attribute selectors.

IDE → Integrated Development Environment

Identifier

A name that identifies (that is, labels the identity of) either a unique object or a unique class of objects, where the “object” or class may be an idea, physical, or countable object (or class thereof), or physical or uncountable substance (or class thereof). The abbreviation “ID” often

refers to identity, identification (the process of identifying), or an identifier (that is, an instance of identification). An identifier may be a word, number, letter, symbol, or any combination of those. †

IDL → Interactive Data Language

→ Interface definition language

→ Interface description language

IE → Internet Explorer

IEEE

→ Institute of Electrical and Electronics Engineers

IETF

→ Internet Engineering Task Force

if → Conditional

Iframe

A frame placed inside the body of an HTML document, usually via the `iframe` element.

IIFE

→ Immediately Invoked Function Expression

IIS → Internet Information Services

Image

An artifact that depicts visual perception, such as a photograph or other two-dimensional picture, particularly one that resembles a subject (usually a physical object). In the context of signal processing, an image is a distributed amplitude of color. In web development, an image often refers to an image file or element. †

Image map

A list of coordinates relating to a specific image, created in order to hyperlink areas of the image to different destinations (as opposed to a normal image link, in which the entire area of the image links to a single destination). Image maps can be created in different ways, from server-side image maps relying on the `ismap` attribute to client-side image maps using the `map` and `area` elements, or a combination of list markup and CSS styling. †

Image replacement

An early web design technique that uses CSS to replace text on a web page with an image containing that text. Image replacement is intended to keep the page accessible to users of screen readers, text-only web browsers, or other browsers where support for images or style sheets is either disabled or non-existent, while allowing the image to differ between styles. † is.gd/LVXQZj

IMAP

→ Internet Message Access Protocol

Immediately Invoked Function Expression

A JavaScript function that runs as soon as it is defined. The IIFE is a design pattern which is also known as a Self-Executing Anonymous Function and contains two major parts: The first is the anonymous function with lexical scope enclosed within the Grouping Operator `(())`. This prevents accessing variables within the IIFE idiom as well as polluting the global scope. The second part creates the immediately invoked function expression `(())` through which the JavaScript engine will directly interpret the function. ‡

Immutable

A property of an object whose state cannot be modified after it was created (an immutable or unchangeable object). This is in contrast to a mutable object. In some cases, an object is considered immutable even if some internally used attributes change, but the object's state appears to be unchanging from an external point of view. Strings and other concrete objects are typically expressed as immutable objects to improve readability and runtime efficiency in object-oriented programming. Immutable objects are also useful because they are inherently thread-safe. †

In-App Browser

A browser instance in a mobile application, usually working on the basis of WebViews (Android) or WKWebViews (iOS).

Inclusive Design

→ Universal Design

Increment

A term from the Scrum framework that describes all Product Backlog items completed during a Sprint, and the value of the increments of prior Sprints. The Increment is created by members of the Development Team. It must be usable and meet the definition of “Done.”

Incremental Static Regeneration

Static generation on a per-page and on-demand basis, as opposed to regeneration of an entire website at build-time. Through this approach, ISR allows to significantly reduce build time.

Indexed color

A technique to manage digital images' colors in a limited fashion, in order to save computer memory and file storage, while speeding up display refresh and file transfers. Indexed color is a form of vector quantization compression. When an image is encoded this way, color information is not directly carried by the image pixel data, but stored in a separate piece of data called a palette, that is, an array of color elements. †

Indexed Database

A JavaScript API provided by web browsers for managing a NoSQL database of JSON objects. As an alternative to the web storage standard, IndexedDB can provide more storage capacity. Use cases for IndexedDB include caching web application data for offline availability. † [i w3.org/TR/IndexedDB](http://w3.org/TR/IndexedDB)

IndexedDB

→ Indexed Database

Indexing

- n-based indexing
- One-based indexing
- Search engine indexing
- Web indexing
- Zero-based indexing

IndieWeb

A community of individual personal websites, connected by simple standards, based on the

principles of owning a domain, using it as one's primary identity, to publish on one's own site (optionally syndicate elsewhere), and own one's data. i indieweb.org

Industrial Design

A process of design applied to products that are to be manufactured through techniques of mass production. Its key characteristic is that design is separated from manufacture: The creative act of determining and defining a product's form and features takes place in advance of the physical act of making a product, which consists purely of repeated, often automated, replication and distinguishes industrial design from craft-based design. †

Infinite loop

→ Infinite loop

Infinite scrolling

The dynamic loading of additional web page content, usually when a user starts scrolling, so that it seems as if they could scroll indefinitely. Infinite scrolling can be problematic from a user perspective if there is useful or important information at the end of a page that cannot be reached because of the continued adding of content.

Information architecture

The structural design of shared information environments; the art and science of organizing and labeling websites, intranets, online communities, and software to support usability and findability; and an emerging community of practice focused on bringing principles of design, architecture, and information science to the digital landscape. Typically, IA involves a model or concept of information that is used and applied to activities which require explicit details of complex information systems. These activities include library systems and database development. †

Information Design

The practice of presenting information in a way that fosters an efficient and effective understanding of the information. The term has come to be used for a specific area of graphic design related to displaying information effectively, rather than just attractively or for artistic expression. Information design is closely related to the field of data visualization. The broad applications of information design along with its close connections to other fields of design and communication practices have created some overlap in the definitions of communication design, data visualization, and information architecture. †

Information foraging

A theory that applies the ideas from optimal foraging theory to understand how human users search for information. The theory is based on the assumption that, when searching for information, humans use "built-in" foraging mechanisms that evolved to help our animal ancestors find food. Importantly, better understanding of human search behavior can improve the usability of websites or any other user interface. †

Information overload

The difficulty in understanding an issue and effectively making decisions when one has too much information about that issue. Generally, the term is associated with the excessive quantity of daily information. Information overload most likely originated from information theory, which are studies in the storage, preservation, communication, compression, and extraction of information. †

Information retrieval

The activity of obtaining information system resources that are relevant to an information need from a collection of those resources. Information retrieval is the science of searching for information in a document, searching for documents themselves, and also searching for the metadata that describes data, and for databases of texts, images, or sounds. †

Information scent

Cues in the information environment pointing to possible answers. Human users estimate how much useful information they are likely to get on a given path, and after seeking information compare the actual outcome with their predictions. When the information scent stops getting stronger (i.e., when users no longer expect to find useful additional information), users move to a different information source. Poor information scent is one reason for the ineffectiveness of “(click) here” and “(learn) more” links. †

Information Security

The practice of protecting information by mitigating information risks. Information Security is part of information risk management, and typically involves preventing or at least reducing the probability of unauthorized or inappropriate access, use, disclosure, disruption, deletion or destruction, corruption, modification, inspection, recording, or devaluation, although it may also involve reducing the adverse impacts of incidents. Information may take any form, e.g., electronic or physical, tangible (e.g., paperwork) or intangible (e.g., knowledge). The primary focus of Information Security is the balanced protection of the confidentiality, integrity, and availability of data while maintaining a focus on efficient policy implementation, all without hampering organization productivity. †

Information Security Operations Center

A special Security Operations Center (SOC) facility where enterprise information systems (websites, applications, databases, data centers and servers, networks, desktops, and other endpoints) are monitored, assessed, and defended. †

Infosec

→ Information Security

Infrastructure as a Service

Online services that provide high-level APIs used to dereference various low-level details of underlying network infrastructure like physical computing resources, location, data partitioning, scaling, security, or backup. A hypervisor runs the virtual machines as guests. Pools of hypervisors within the cloud-operational system can support large numbers of virtual machines and the ability to scale services up and down according to varying requirements.

†

Infrastructure as Code

The process of managing and provisioning computer data centers through machine-readable definition files, rather than physical hardware configuration or interactive configuration tools.

†

Inheritance

The mechanism of basing an object or class upon another object (prototype-based inheritance) or class (class-based inheritance), retaining similar implementation. Also defined as deriving new classes (sub classes) from existing ones (super class or base class) and forming them

into a hierarchy of classes. In most class-based object-oriented languages, an object created through inheritance (a “child object”) acquires all the properties and behaviors of the parent object (except: constructors, destructors, overloaded operators, and friend functions of the base class). Inheritance allows to create classes that are built upon existing classes, to specify a new implementation while maintaining the same behaviors (realizing an interface), to reuse code, and to independently extend original software via public classes and interfaces. †

Initiative for Open Authentication

An industry-wide collaboration to develop an open reference architecture using open standards to promote the adoption of strong authentication. OATH has close to 30 coordinating and contributing members and is proposing standards for a variety of authentication technologies, with the aim of lowering costs and simplifying their functions. † [i openauthentication.org](http://openauthentication.org)

Inline

→ Inline box

→ Inline-level box

→ Inline-level element

Inline box

A box that is inline-level and whose contents take part in an inline formatting context.

Inline element

→ Inline-level element

Inline flow

A CSS concept referring to the direction of text flow in a sentence. In an English document, inline flow runs left to right.

Inline formatting context

A formatting context in which boxes are laid out horizontally. Horizontal padding, borders, and margins are respected.

Inline linking

The use (embedding) of a linked object, often an image, on one website by a web page belonging to a second site. One website is said to have an inline link to the other site where the object is located. †

Inline replying

→ Interleaved posting

Inline-level box

A box generated by an inline-level element.

Inline-level element

An element that does not form new blocks of content and whose content is distributed in lines.

innerHTML

A DOM attribute that can be used to get and set the markup within the respective element. Use of the property is considered bad practice because of possible security and performance issues.

Input/Output

The communication between an information processing system, such as a computer, and the outside world, possibly a human or another information processing system. Inputs are the signals or data received by the system and outputs are the signals or data sent from it. †

Input/output operations per second

An input/output performance measurement used to characterize computer storage devices like hard disk drives (HDD), solid state drives (SSD), and storage area networks (SAN). Like benchmarks, IOPS numbers published by storage device manufacturers do not directly relate to real-world application performance. †

Insertion mode

In HTML, the state variable that controls the primary operation of the tree construction stage. It affects how tokens are processed and whether CDATA sections are supported. §

Instance store

Storage capacity located on disks physically attached to the respective host machine. In cloud computing, an instance store is used for temporary storage.

Instance variable

A variable defined in a class for which each instantiated object of the class has a separate copy, or instance. An instance variable is declared in a class but outside a constructor, method, or block; it is created when an object is instantiated. Instance variables are accessible to all constructors, methods, and blocks in the class. †

Instant Articles

A feature from social networking company Facebook for use with collaborating news and content publishers, that the publisher can choose to use for articles they select. When a publisher selects an article for Instant Articles, people browsing Facebook with the Facebook mobile app can see the entire article within the app, with formatting similar to that on the publisher's website. † [i instantarticles.fb.com](https://i.instantarticles.fb.com)

Institute of Electrical and Electronics Engineers

A professional association that was formed in 1963 from the amalgamation of the American Institute of Electrical Engineers and the Institute of Radio Engineers. The IEEE's objectives are the educational and technical advancement of electrical and electronic engineering, telecommunications, computer engineering, and associated disciplines. † [i ieee.org](https://www.ieee.org)

Instrument flight

The deploying and releasing of untested code.

Integer

In computer science, a datum of integral data type, a data type that represents some range of mathematical integers. Integral data types may be of different sizes and may or may not be allowed to contain negative values. Integers are commonly represented in a computer as a group of binary digits (bits). With 32 bits, an integer has a signed range from $-2,147,483,648$ to $2,147,483,647$, and an unsigned range from 0 to $4,294,967,295$. †

In mathematics, a number that can be written without a fractional component. For example, 21, 4, 0, and -2048 are integers, while 9.75 , $5\frac{1}{2}$, and $\sqrt{2}$ are not. The set of integers consists of zero (0), the positive natural numbers (1, 2, 3, ...), also called whole numbers or counting numbers, and their additive inverses (the negative integers, i.e., -1 , -2 , -3 , ...). †

Integrated Development Environment

A software application that provides comprehensive facilities to computer programmers for software development. An IDE normally consists of at least a source code editor, build

automation tools, and a debugger. Some IDEs contain the necessary compiler, interpreter, or both. †

Intellectual Property

A category of property that includes intangible creations of the human intellect. There are many types of intellectual property, and some countries recognize more than others. The most well-known types are copyrights, patents, trademarks, and trade secrets. The main purpose of intellectual property law is to encourage the creation of a wide variety of intellectual goods. To achieve this, the law gives people and businesses property rights to the information and intellectual goods they create, usually for a limited period of time. This gives economic incentive for their creation. The intangible nature of intellectual property presents difficulties when compared with traditional property like land or goods. Unlike traditional property, intellectual property is “indivisible,” since an unlimited number of people can “consume” an intellectual good without it being depleted. †

IntelliJ IDEA

An integrated development environment (IDE) written in Java for developing computer software. IntelliJ IDEA is developed by JetBrains (formerly known as IntelliJ) and was first released in 2001. † i jetbrains.com/idea

Intent to Implement

→ Intent to Prototype

Intent to Prototype

A software vendor expression to develop a particular software or software feature. This implementation may not necessarily lead to a public release but instead serve to assess feasibility, desirability, and cost.

Interaction Design

The practice of designing interactive digital products, environments, systems, and services. Beyond the digital aspect, interaction design is also useful when creating physical (non-digital) products, exploring how a user might interact with it. Common topics of interaction design include design, human-computer interaction, and software development. While interaction design has an interest in form (similar to other design fields), its main area of focus rests on behavior. †

Interaction Design Association

A member-supported organization for the field of interaction design. The IxDA was founded in 2003. i ixda.org

Interactive Advertising Bureau

An advertising business organization that develops industry standards, conducts research, and provides legal support for the online advertising industry. † i iab.com

Interactive content

Content that is specifically intended for user interaction. §

Interactive Data Language

A programming language used for data analysis. IDL is popular in particular areas of science, such as astronomy, atmospheric physics, and medical imaging. † i is.gd/7PRg0z

Interface

A shared boundary across which two or more separate components of a computer system

exchange information. The exchange can be between software, computer hardware, peripheral devices, humans, and combinations of these. Some computer hardware devices, such as a touchscreen, can both send and receive data through the interface, while others such as a mouse or microphone may only provide an interface to send data to a given system. †

→ Graphical User Interface

→ User Interface

Interface definition language

A generic term for a language that lets a program or object written in one language communicate with another program written in an unknown language. IDLs describe an interface in a language-independent way, enabling communication between software components that do not share one language, for example, between those written in C++ and those written in Java. IDLs are commonly used in remote procedure call software. †

Interface description language

→ Interface definition language

Interface Segregation Principle

The principle that no client should be forced to depend on methods it does not use. ISP splits interfaces that are very large into smaller and more specific ones so that clients will only have to know about the methods that are of interest to them. Such shrunken interfaces are also called role interfaces. ISP is intended to keep a system decoupled and thus easier to refactor, change, and redeploy. †

Interleaved posting

A posting style in which the different parts of the reply follow the relevant parts of the original post. †

Internal

Originating inside one's organization.

International Organization for Standardization

An international standard-setting body composed of representatives from various national standards organizations. Founded in 1947, the ISO promotes worldwide proprietary, industrial, and commercial standards. † [i iso.org](http://i.iso.org)

International Telecommunication Union

A specialized agency of the United Nations responsible for information and communication technologies. Established in 1865 as the International Telegraph Union, the ITU is one of the oldest international organizations in operation. It promotes the shared global use of the radio spectrum, facilitates international cooperation in assigning satellite orbits, assists in developing and coordinating worldwide technical standards, and works to improve telecommunication infrastructure in the developing world. The ITU is also active in the areas of broadband Internet, wireless technologies, aeronautical and maritime navigation, radio astronomy, satellite-based meteorology, TV broadcasting, and next-generation networks. † [i itu.int](http://i.itu.int)

Internationalization

The process of designing a software application so that it can be adapted to various languages and regions without engineering changes. †

Internationalized Resource Identifier

An Internet protocol standard which builds on the Uniform Resource Identifier (URI) protocol by greatly expanding the set of permitted characters. IRIs were defined in 2005 by the Internet Engineering Task Force (IETF). †

Internet

The global system of interconnected computer networks that uses the Internet protocol suite (TCP/IP) to link devices worldwide. The Internet is a network of networks that consists of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies. The Internet carries a vast range of information resources and services, such as the inter-linked hypertext documents and applications of the World Wide Web (WWW), electronic mail, telephony, and file sharing. †

Internet Architecture Board

A committee of the Internet Engineering Task Force (IETF) and an advisory body of the Internet Society (ISOC). The IAB's responsibilities include architectural oversight of IETF activities, Internet Standards Process oversight and appeal, and the appointment of the Request for Comments (RFC) Editor. It is also responsible for the management of the IETF protocol parameter registries. The IAB started as the Internet Configuration Control Board in 1979. † i iab.org

Internet Assigned Numbers Authority

A function of ICANN that is responsible for the allocation of globally unique names and numbers that are used in Internet protocols, and for the assignment of Internet numbers which are numerical identifier assigned to an Internet resource or used in the networking protocols of the Internet protocol suite. Examples include IP addresses and autonomous system (AS) numbers. IANA was founded in 1988. † i iana.org

Internet Corporation for Assigned Names and Numbers

A non-profit organization responsible for coordinating the maintenance and procedures of several databases related to the namespaces and numerical spaces of the Internet, ensuring the network's stable and secure operation. ICANN performs the actual technical maintenance work of central Internet address pools and DNS root zone registries pursuant to the Internet Assigned Numbers Authority (IANA) function contract. ICANN was founded in 1998. † i icann.org

Internet Engineering Task Force

An open-standards organization, which develops and promotes voluntary Internet standards, in particular the standards that comprise the Internet protocol suite (TCP/IP). The IETF was founded in 1986. † i ietf.org

Internet Explorer

A series of graphical web browsers developed by Microsoft and included in the Microsoft Windows line of operating systems, starting in 1995. It was first released as part of the add-on package Plus! for Windows 95 that year. Later versions were available as free downloads, or in service packs, and included in the original equipment manufacturer (OEM) service releases of Windows 95 and later versions of Windows. The browser is discontinued, but still maintained. † i is.gd/nJZDm3

Internet Information Services

An extensible web server created by Microsoft for use with the Windows NT family. IIS was released in 1995. † [i iis.net](#)

Internet Message Access Protocol

An Internet standard protocol used by email clients to retrieve email messages from a mail server over a TCP/IP connection. IMAP was designed in 1986 and is defined by RFC 3501. †

Internet Protocol

The principal communications protocol in the Internet protocol suite for relaying datagrams across network boundaries. Its routing function enables inter-networking, and essentially establishes the Internet. †

Internet Relay Chat

An application-layer protocol that facilitates communication in the form of text. The chat process works on a client/server networking model. IRC clients are computer programs that users can install on their system or web based applications running either locally in the browser or on a 3rd party server. IRC was created in 1988 by Jarkko Oikarinen. †

Internet Resource Locator

A locator defined by an Internet resource location standard.

Internet Service Provider

An organization that provides services for accessing, using, or participating in the Internet. Internet services typically provided by ISPs include Internet access, Internet transit, domain name registration, web hosting, Usenet service, and co-location. †

Internet Society

A non-profit organization founded in 1992 to provide leadership in Internet-related standards, education, access, and policy. The ISOC's mission is "to promote the open development, evolution, and use of the Internet for the benefit of all people throughout the world." † [i internetsociety.org](#)

InternetWorks

A web browser by BookLink Technologies. InternetWorks was the first browser to offer tabbed browsing. It was released in 1994.

InterNIC

→ Network Information Center

Interoperability

A characteristic of a product or system, whose interfaces are completely understood, to work with other products or systems, at present or in the future, in either implementation or access, without any restrictions. †

InterPlanetary File System

A protocol and peer-to-peer network for storing and sharing data in a distributed file system. IPFS uses content-addressing to uniquely identify each file in a global namespace connecting all computing devices. As opposed to a centrally located server, IPFS is built around a decentralized system of user-operators who hold a portion of the overall data, creating a resilient system of file storage and sharing. IPFS was released in 2015. † [i ipfs.io](#)

Interpolation

An estimation method of constructing (finding) new data points based on the range of a discrete

set of known data points. †

Intersection Observer

An API providing a way to asynchronously observe changes in the intersection of a target element with an ancestor element or with a top-level document's viewport. Historically, detecting visibility of an element, or the relative visibility of two elements in relation to each other, has been a difficult task for which solutions have been unreliable and prone to causing browsers and sites to become sluggish. The Intersection Observer API lets code register a callback function that is executed whenever an element they wish to monitor enters or exits another element (or the viewport), or when the amount by which the two intersect changes by a requested amount. ‡ [i w3.org/TR/intersection-observer](https://www.w3.org/TR/intersection-observer)

Interstitial

A web page displayed before or after an expected content page, often to display advertisements or confirm the user's age (prior to showing age-restricted material). Interstitial advertisements are usually delivered by an ad server. †

Intranet

A computer network for sharing information, collaboration tools, operational systems, and other computing services only within an organization, and to the exclusion of access by outsiders to the organization. The term is used in contrast to public networks, such as the Internet, but uses most of the same technology. A company-wide intranet can constitute an important focal point of internal communication and collaboration, and provide a single starting point to access internal and external resources. In its simplest form, an intranet is established with the technologies for local area networks (LANs) and wide area networks (WANs). Many modern intranets have search engines, user profiles, blogs, mobile apps with notifications, and events planning within their infrastructure. †

Intrinsic size

The size an element has just going by its content, with no external factors applied. For example, inline elements are sized intrinsically, with styling for width, height, and vertical margin and padding having no impact. ‡

Intrinsic typography

Typography, notably text size and leading, that responds to its environment. Such intrinsic styling can be accomplished through the use of CSS animations and easing functions. [i is.gd/pyNr4P](https://is.gd/pyNr4P)

Intrinsic web design

A content-focused approach to web design that is more versatile and promises to be more code-efficient than responsive web design (RWD). The term "intrinsic web design" is attributed to Jen Simmons.

Inversion of Control

A programming principle that inverts the flow of control as compared to traditional control flow. In IoC, custom-written portions of a computer program receive the flow of control from a generic framework. A software architecture with this design inverts control as compared to traditional procedural programming, where the custom code that expresses the purpose of the program calls into reusable libraries to take care of generic tasks. With inversion of control, it is the framework that calls into the custom, or task-specific, code. †

Inverted Triangle CSS

A CSS management approach that promotes going from generic to specific.

IoC → Inversion of Control

IOPS

→ Input/output operations per second

iOS A mobile operating system created and developed by Apple, exclusively for its hardware. iOS was first released in 2007. † [i apple.com/ios](http://i.apple.com/ios)

IP → Intellectual Property

→ Internet Protocol

IP address

A numerical label assigned to each device connected to a computer network that uses the Internet Protocol for communication. An IP address serves two main functions: host or network interface identification and location addressing. †

IP telephony

→ Voice over IP

IPFS

→ InterPlanetary File System

IPSECKEY

An IPsec key resource record in the Domain Name System (DNS). †

iptables

A user space utility program that allows a system administrator to configure the IP packet filter rules of the Linux kernel firewall. The filters are organized in different tables, which contain chains of rules for how to treat network traffic packets. Different kernel modules and programs are currently used for different protocols: iptables applies to IPv4, ip6tables to IPv6, arptables to ARP, and ebtables to Ethernet frames. † [i is.gd/8vgf9l](http://is.gd/8vgf9l)

IPv4

The fourth version of the Internet Protocol (IP). It is one of the core protocols of standards-based inter-networking methods in the Internet and other packet-switched networks. IPv4 was the first version deployed for production in the ARPANET in 1983. It still routes most Internet traffic today, despite the ongoing deployment of a successor protocol, IPv6. †

IPv6

The most recent version of the Internet Protocol (IP). IPv6 was developed by the Internet Engineering Task Force (IETF) to deal with the anticipated problem of IPv4 address exhaustion. IPv6 is intended to replace IPv4. †

IRC → Internet Relay Chat

IRI → Internationalized Resource Identifier

IRL → Internet Resource Locator

Islands architecture

The use of placeholders for dynamic parts of a web page, to be loaded and hydrated separately in order to improve perceived performance.

ISO → International Organization for Standardization

ISOC

→ Information Security Operations Center

→ Internet Society

ISP → Interface Segregation Principle

→ Internet Service Provider

ISR → Incremental Static Regeneration**ITCSS**

→ Inverted Triangle CSS

ITU

→ International Telecommunication Union

IWD

→ Intrinsic web design

IxD → Interaction Design**IxDA**

→ Interaction Design Association



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

J

Jakob's Law

“Users spend most of their time on other sites. This means that users prefer your site to work the same way as all the other sites they already know.” [i mngroup.com/articles/end-of-web-design](http://mngroup.com/articles/end-of-web-design)

Jamstack/JAMstack

A solution stack based on JavaScript, APIs, and markup (“JAM”).

Jank

A sluggishness in a user interface, usually caused by executing long tasks on the main thread, blocking rendering, or expending too much processor power on background processes. ‡

JAR

→ Java archive

Jasmine

A testing framework for JavaScript. Jasmine aims to run on any JavaScript-enabled platform, not to intrude on the application nor the IDE, and to have easy-to-read syntax. † [i jasmine.github.io](http://jasmine.github.io)

Java

A general-purpose programming language that is class-based, object-oriented, and designed to have as few implementation dependencies as possible. It is intended to let application developers “write once, run anywhere” (WORA), meaning that compiled Java code can run on all platforms that support Java without the need for recompilation. Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of the underlying computer architecture. The syntax of Java is similar to C and C++, but it has fewer low-level facilities than either of them. Java was first released in 1995. † [i java.com](http://java.com)

Java applet

→ Applet

Java archive

A package file format typically used to aggregate Java class files and associated metadata and resources (text, images, etc.) into one file for distribution. JAR files are archive files that include a Java-specific manifest file. They build on the ZIP format and typically have a .jar file extension. †

Java Database Connectivity

An API for the programming language Java, which defines how a client may access a database. JDBC is part of the Java Standard Edition platform from Oracle. It provides methods to query and update data in a database, and is oriented towards relational databases. JDBC was first released in 1997. † [i is.gd/CWA3VV](http://is.gd/CWA3VV)

Java Development Kit

An implementation of either of the Java Platform editions released by Oracle in the form of

a binary product aimed at Java developers on Linux, macOS, or Windows. The JDK includes a private JVM and other resources to complete the development of a Java application. Since the introduction of the Java platform, it has been by far the most widely used Software Development Kit (SDK). † [i is.gd/dZipm6](https://is.gd/dZipm6)

Java servlet

→ Servlet

Java virtual machine

A virtual machine that enables a computer to run Java programs as well as programs written in other languages that are also compiled to Java bytecode. The JVM is detailed by a specification that formally describes what is required in a JVM implementation. Having a specification ensures interoperability of Java programs across different implementations so that program authors using the Java Development Kit (JDK) need not worry about idiosyncrasies of the underlying hardware platform. †

JavaFX

A software platform for creating and delivering desktop applications, as well as rich Internet applications (RIAs) that can run across a wide variety of devices. JavaFX is intended to replace Swing as the standard GUI library for Java SE, but both will be included for the foreseeable future. JavaFX has support for desktop computers and web browsers on Microsoft Windows, macOS, and Linux. JavaFX was first released in 2008. † [i openjfx.io](https://openjfx.io)

JavaScript

→ ECMAScript

JavaScript framework

An application framework written in JavaScript. A JavaScript framework differs from a JavaScript library in its control flow: A library offers functions to be called by its parent code, whereas a framework defines the entire application design. A developer does not call a framework; instead, the framework calls and uses the code in some particular way. Some JavaScript frameworks follow the model-view-controller paradigm designed to segregate a web application into orthogonal units to improve code quality and maintainability. Examples include AngularJS, Ember.js, Meteor.js, and Vue.js. †

JavaScript library

→ Library

JavaScript Object Notation

An open-standard file format or language-independent data interchange format that uses human-readable text to transmit data objects consisting of attribute-value pairs and array data types (or any other serializable value). JSON is a common data format, with a diverse range of applications, such as serving as replacement for XML in AJAX systems. The Internet media type for JSON is `application/json`. † [i json.org](https://json.org)

JavaScript Object Notation for Linked Data

A method of encoding Linked Data using JSON. JSON-LD allows data to be serialized in a way that is similar to traditional JSON. It was initially developed by the JSON for Linking Data Community Group. † [i json-ld.org](https://json-ld.org)

JavaScript Style Sheets

A style sheet language technology proposed in 1996 by Netscape to provide facilities for

defining the presentation of web pages. JSSS was an alternative to the Cascading Style Sheets (CSS) language that was never accepted as a formal standard and never gained acceptance in the web browser market. Only Netscape Communicator 4 implemented JSSS, and soon after Netscape Communicator's release in 1997, Netscape stopped promoting JSSS, instead focusing on the rival CSS standard. †

JavaScript XML

An extension to the JavaScript language syntax. Similar in appearance to HTML, JSX provides a way to structure component rendering using syntax familiar to many developers. React components are typically written using JSX, although they do not have to be (components may also be written in pure JavaScript). †

JavaServer Pages

A collection of technologies that helps software developers create dynamically generated web pages based on HTML, XML, SOAP, and other document types. Released in 1999 by Sun Microsystems, JSP is similar to PHP and ASP, but uses the Java programming language. To deploy and run JavaServer Pages, a compatible web server with a servlet container, such as Apache Tomcat or Jetty, is required. †

JAWS

→ Job Access With Speech

JDBC

→ Java Database Connectivity

JDK

→ Java Development Kit

Jekyll

A static site generator based on Ruby. Jekyll was first released in 2008. [i jekyllrb.com](http://jekyllrb.com)

Jenkins

A continuous integration and delivery solution that helps to automate testing, building, and deploying software. Jenkins was released in 2011. † [i jenkins.io](http://jenkins.io)

Jetty

A Java HTTP (Web) server and Java servlet container. While web servers are usually associated with serving documents to people, Jetty is often used for machine to machine communications, usually within larger software frameworks. Jetty was first released in 1995. † [i eclipse.org/jetty](http://eclipse.org/jetty)

Jimdo

A website builder, e-commerce platform, and hosting solution, designed for users to create their own websites and stores without web design experience. Jimdo was founded in 2007. [i jimdo.com](http://jimdo.com)

Jinja

A web template engine for the Python programming language. Jinja was created in 2008 by Armin Ronacher. It is similar to the Django template engine but provides Python-like expressions while ensuring that templates are evaluated in a sandbox. Jinja is a text-based template language and can therefore be used to generate any markup as well as source code. † [i is.gd/waQ3Ew](http://is.gd/waQ3Ew)

JinjaJava

A Java-based template engine based on the Django template syntax to render Jinja templates.

Jinjava is used widely around the HubSpot marketing and sales software. [i github.com/HubSpot/jinjava](https://github.com/HubSpot/jinjava)

Jira A proprietary issue tracking product by Atlassian that allows bug tracking and agile project management. Jira was first released in 2002. [† i atlassian.com/software/jira](https://atlassian.com/software/jira)

JIT → Just in Time

JIT compiler

→ Just-in-time compilation

Job Access With Speech

A computer screen reader program for Microsoft Windows that allows blind and visually impaired users to read the screen either with a text-to-speech output or by a refreshable Braille display. JAWS is produced by the Blind and Low Vision Group of Freedom Scientific and was first released in 1995. [† i is.gd/EJwKy3](https://www.freedomscientific.com/JAWS/)

Joint Photographic Experts Group

A joint committee between ISO/IEC JTC 1 and ITU-T (formerly CCITT) that created and maintains the JPEG, JPEG 2000, and JPEG XR standards. [† i jpeg.org](https://jpeg.org)

Joomla

A content management system (CMS) for publishing web content. Joomla is built on a model-view-controller web application framework that can be used independently of the CMS. It was first released in 2005. [† i joomla.org](https://www.joomla.org)

JPEG

A commonly used method of lossy compression and a file format for digital images, particularly for those images produced by digital photography. The degree of compression can be adjusted, allowing a selectable tradeoff between storage size and image quality. JPEG typically achieves 10:1 compression with little perceptible loss in image quality. Since its introduction in 1992, JPEG has been the most widely used image compression standard in the world, and the most widely used digital image format, with several billion JPEG images produced every day as of 2015. [†](#)

→ Joint Photographic Experts Group

JPG → JPEG

jQuery

A JavaScript library designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and AJAX. The set of jQuery core features enabled by its selector engine (named “Sizzle” from v1.3) created a new “programming style,” fusing algorithms and DOM data structures. This style influenced the architecture of other JavaScript frameworks like YUI v3 and Dojo, later stimulating the creation of the standard Selectors API. As of 2019, jQuery is used by 73% of the 10 million most popular websites. jQuery was released in 2006 by John Resig. [† i jquery.com](https://jquery.com)

JS → JavaScript

JScript

A dialect of the ECMAScript standard that is used in Microsoft’s Internet Explorer. JScript is implemented as an Active Scripting engine. JScript was developed by Microsoft and first supported in Internet Explorer 3.0 released in 1996. Its most recent version is JScript 9.0, included in Internet Explorer 9. [†](#)

JSLint

A static code analysis tool used in software development for checking if JavaScript source code complies with coding rules. JSLint is provided primarily as a browser-based web application accessible through jshint.com, but there are also command-line adaptations. JSLint was created in 2002 by Douglas Crockford. † [i jshint.com](http://jshint.com)

JSON

→ JavaScript Object Notation

JSON Feed

A web feed file format for web syndication in JSON instead of XML, as used by RSS and Atom. † [i jsonfeed.org](http://jsonfeed.org)

JSON Web Encryption

An IETF standard providing a standardized syntax for the exchange of encrypted data, based on JSON and Base64. It is defined by RFC 7516. Along with JSON Web Signature (JWS), it is one of the two possible formats of a JWT (JSON Web Token). †

JSON Web Signature

An IETF standard (RFC 7515) for signing arbitrary data. This is used as the basis for a variety of web-based technologies, like JSON Web Token. †

JSON Web Token

An Internet standard for creating JSON-based access tokens that assert some number of claims. JWT claims can typically be used to pass identity of authenticated users between an identity provider and a service provider, or any other type of claims as required by business processes. †

JSON with Padding

A historical JavaScript technique for requesting data by loading a `script` element. JSONP was proposed in 2005 by Bob Ippolito. It enables sharing of data bypassing same-origin policy, which disallows running JavaScript code to read media DOM elements or XMLHttpRequest data fetched from outside the page's originating site. JSONP is vulnerable to the data source replacing the innocuous function call with malicious code, which is why it has been superseded by cross-origin resource sharing in modern applications. †

JSON-LD

→ JavaScript Object Notation for Linked Data

JSON-P

→ JSON with Padding

JSON5

→ JSON5 Data Interchange Format

JSON5 Data Interchange Format

An unofficial superset of, and proposed extension to, the JSON format. The goal of JSON5 is to make it easier for people to write and maintain JSON. Its features relate to the handling of objects, arrays, strings, numbers, and comments. JSON5 is suggested to have a special file extension, `.json5`, as well as a different MIME type. [i json5.org](http://json5.org)

JSONP

→ JSON with Padding

JSP → JavaServer Pages

JSS → CSS-in-JS

JSSS

→ JavaScript Style Sheets

JSX → JavaScript XML

Just in Time

A business methodology aimed at reducing times within the production system as well as response times from suppliers and to customers, for everything to happen “just in time.” †

Just-in-time compilation

A way of executing computer code that involves compilation during execution of a program—at runtime—rather than before execution. Most often, this consists of source code or more commonly bytecode translation to machine code, which is then executed directly. A system implementing a JIT compiler typically continuously analyzes the code being executed and identifies parts of the code where the speed-up gained from compilation or recompilation would outweigh the overhead of compiling that code. †

JVM

→ Java virtual machine

JWS

→ JSON Web Signature

JWT

→ JSON Web Token



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

K

K-Meleon

A web browser for Microsoft Windows based on the Gecko layout engine. K-Meleon was first released in 2000. † [i kmeleonbrowser.org](http://kmeleonbrowser.org)

K8s → Kubernetes

Kanban

A lean method to manage and improve work. Kanban aims to manage work by balancing demands with available capacity, and by improving the handling of system-level bottlenecks. Work items are visualized to give participants a view of progress and process, from start to finish, usually via a Kanban board. Work is pulled as capacity permits, rather than work being pushed into the process when requested. †

Kebab case

A case style in which punctuation is removed and spaces are replaced by single hyphens (“the-quick-brown-fox”). Usually the letters share the same case. †

Kerberos

A network authentication protocol that works on the basis of tickets to allow nodes communicating over a non-secure network to prove their identity to one another in a secure manner. The protocol was named after the character Kerberos (or Cerberus) from Greek mythology. Its designers aimed Kerberos primarily at a client-server model for which it provides mutual authentication—both the user and the server verify each other’s identity. Kerberos protocol messages are protected against eavesdropping and replay attacks. † [i web.mit.edu/kerberos](http://web.mit.edu/kerberos)

Kerning

The process of adjusting the spacing between characters in a proportional font, usually to achieve a visually pleasing result. Kerning adjusts the space between individual letter forms, while tracking (letter spacing) adjusts spacing uniformly over a range of characters. In a well-kerned font, the two-dimensional blank spaces between each pair of characters all have a visually similar area. The related term “kern” denotes a part of a type letter that overhangs the edge of the type block. †

Key In cryptography, a piece of information (a parameter) that determines the functional output of a cryptographic algorithm. For encryption algorithms, a key specifies the transformation of plain-text into ciphertext, and vice versa for decryption algorithms. †

→ Database index

KEY

A key resource record in the Domain Name System (DNS). †

Key frame

A drawing or shot that defines the starting and ending points of any smooth transition. These are called frames because their position in time is measured in frames on a strip of film or on

a digital video editing timeline. A sequence of key frames defines which movement the viewer will see, whereas the position of the key frames on the film, video, or animation defines the timing of the movement. Because only two or three key frames over the span of a second do not create the illusion of movement, the remaining frames are filled with “inbetweens.” †

Key management

The management of cryptographic keys, including their generating, storing, using, exchanging, and replacing.

Key Performance Indicator

A type of performance measurement. KPIs evaluate the success of an organization or of a particular activity (such as projects, programs, products, and other initiatives) in which it engages. Choosing the right KPIs relies upon a good understanding of what is important to the organization. What is deemed important often depends on the business department measuring the performance. †

Key-value database

A data storage paradigm designed for storing, retrieving, and managing associative arrays, and a data structure more commonly known today as a dictionary or hash table. Dictionaries contain a collection of objects, or records, which in turn have many different fields within them, each containing data. These records are stored and retrieved using a key that uniquely identifies the record, and is used to find the data within the database. †

Keyframe

→ Key frame

Keyword

A reserved word (also known as a reserved identifier) is a word that cannot be used as an identifier, such as the name of a variable, function, or label—it is “reserved from use.” This is a syntactic definition, and a reserved word may have no meaning. †

KHTML

A browser engine developed by the KDE project. KHTML is the engine used by the Konqueror web browser. Although it has not seen significant development since 2016, it is still actively maintained.

Knowledge Graph

A knowledge base used by Google and its services to enhance its search engine’s results with information gathered from a variety of sources. The information is presented to users in an info box next to search results. Knowledge Graph info boxes were added to Google’s search engine in 2012, starting in the United States. The information covered by the Knowledge Graph grew significantly after launch (covering 570 million entities and 18 billion facts), answering roughly one third of the 100 billion monthly searches Google processed in 2016. †

Konqueror

A web browser and file management tool. Konqueror was first released in 1996. [i konqueror.org](http://konqueror.org)

KPI → Key Performance Indicator

Kubernetes

A container orchestration system for automating computer application deployment, scaling, and management. Kubernetes was originally designed by Google, first released in 2014, and is now maintained by the Cloud Native Computing Foundation. It aims to provide a platform

for automating deployment, scaling, and operations of application containers across clusters of hosts. † i kubernetes.io



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

L

L10N

→ Localization

Lambda abstraction

→ Anonymous function

Lambda expression

→ Anonymous function

LAMP

→ Linux, Apache, MySQL, PHP/Perl/Python

LAN

→ Local area network

Landing page

A single web page that appears in response to clicking on an search-optimized search result, online advertisement, or marketing promotion. The landing page will usually display directed sales copy that is a logical extension of the advertisement, search result, or link. Landing pages are used for lead generation. The actions that a visitor takes on a landing page is what determines an advertiser's conversion rate. A landing page may be part of a microsite or a single page within an organization's main website. †

Language

→ Markup language

→ Programming language

Laravel

A PHP web framework based on Symfony, intended for the development of web applications following the model-view-controller (MVC) architectural pattern. Laravel features include a modular packaging system with a dedicated dependency manager, different ways for accessing relational databases, utilities that aid in application deployment and maintenance, and an orientation toward syntactic sugar. Laravel was released in 2011 by Taylor Otwell. † [i laravel.com](http://laravel.com)

Large-Scale Scrum

A product development framework that extends Scrum with scaling rules and guidelines without losing the original purposes of Scrum. There are two levels to the framework: The first LeSS level is designed for up to eight teams; the second level, known as "LeSS Huge," introduces additional scaling elements for development with up to hundreds of developers. †

Largest Contentful Paint

The time it takes for the largest content element visible in the viewport to render. Large elements considered for measurement include images, videos, and large text blocks. [i wicg.github.io/largest-contentful-paint](https://wicg.github.io/largest-contentful-paint)

Last Call Working Draft

A mature version of a World Wide Web Consortium (W3C) Working Draft in need of test and implementation feedback.

Last In, First Out

→ Stack

Latency

A time interval between the stimulation and response, or, from a more general point of view, a time delay between the cause and the effect of some physical change in the system being observed. Latency is physically a consequence of the limited velocity with which any physical interaction can propagate. The magnitude of this velocity is always less than or equal to the speed of light. Therefore, every physical system with any physical separation (distance) between cause and effect will experience some sort of latency, regardless of the nature of stimulation that it has been exposed to. †

LaTeX

A document preparation system. When writing, the writer uses plain-text as opposed to the formatted text found in WYSIWYG (“what you see is what you get”) word processors like Microsoft Word, LibreOffice Writer, or Apple Pages. The writer uses markup tagging conventions to define the general structure of a document (such as article, book, or letter), to stylize text throughout a document (such as bold and italics), and to add citations and cross-references. A TeX distribution such as TeX Live or MikTeX is used to produce an output file (such as PDF or DVI) suitable for printing or digital distribution. † | latex-project.org

Launch

The (usually public) release of a new software or hardware product.

Law of Conservation of Complexity

→ Tesler’s Law

Layout

In web design, a part of graphic design that deals in the arrangement of visual elements on a (web) page. Layout generally involves organizational principles of composition to achieve specific communication objectives. A high-level page layout involves deciding on the overall arrangement of text and images, and possibly on the size or shape of the medium. Layout requires intelligence, sentience, and creativity, and is informed by culture, psychology, and what the document authors and editors wish to communicate and emphasize. †

In web development, the rendering phase during which the position and size of each object is being calculated.

Layout engine

→ Browser engine

Layout table

An HTML table used not for intended functional purposes (for tabular data), but for layout. Using tables for layout, often in conjunction with spacer images, is a popular web design method from the 1990s and early 2000s that is largely not in use anymore.

Lazy loading

A design pattern commonly used in computer programming to defer initialization of an object

until the point at which it is needed. Lazy loading can contribute to efficiency in the program's operation if properly and appropriately used. This makes it ideal in use cases where network content is accessed and initialization times are to be kept at a minimum, such as in the case of web pages. The opposite of lazy loading is eager loading. †

LCP

→ Largest Contentful Paint

LCU

→ Load Balancer Capacity Unit

LCWD

→ Last Call Working Draft

LDAP

→ Lightweight Directory Access Protocol

Lead time

The latency between the initiation and completion of a process. For example, the lead time between the placement of an order and delivery of a new car by a given manufacturer might be between two weeks and six months, depending on various particularities. Manufacturing lead time, as another example, may be defined as the total time required to manufacture an item, including order preparation time, queue time, setup time, run time, move time, inspection time, and put-away time. †

Leading

The space between adjacent lines of type; the exact definition varies. In hand typesetting, leading is the thin strips of lead that were inserted between lines of type in the composing stick to increase the vertical distance between them. The thickness of the strip is called leading and is equal to the difference between the size of the type and the distance from one baseline to the next. For instance, given a type size of 10 points and a distance between baselines of 12 points, the leading would be 2 points. In CSS, leading refers to the difference between the computed values of `font-size` and `line-height`. †

Lean

A business methodology that aims to provide a new way to think about how to organize human activities to deliver more benefits to society and value to individuals while eliminating waste. The term “lean thinking” was coined by James P. Womack and Daniel T. Jones to capture the essence of their in-depth study of Toyota's fabled Toyota Production System. Lean thinking is a way of thinking about an activity and seeing the waste inadvertently generated by the way the process is organized. It uses the concepts of value, value streams, and flow. †

Left-to-right

A script in which writing starts from the left of a page and continues to the right. †

Legibility

The ease with which a reader can recognize individual characters in text. Aspects of type design that affect legibility include x-height, character shapes, stroke contrast, the size of counters, serifs, or lack thereof, and weight. Not to be confused with readability. †

Less/LESS

A dynamic preprocessor style sheet language that can be compiled into Cascading Style Sheets (CSS) and run on the client or server side. The indented syntax of Less is a nested meta-language,

as valid CSS is valid Less code with the same semantics. Less provides variables, nesting, mixins, operators, and functions. The main difference between Less and other CSS precompilers is that Less allows real-time compilation via `less.js` by the browser. Less was first released in 2009. †
i lesscss.org

LeSS

→ Large-Scale Scrum

Let's Encrypt

A non-profit certificate authority run by Internet Security Research Group (ISRG) that provides X.509 certificates for Transport Layer Security (TLS) encryption at no charge. Certificate are valid for 90 days, during which renewal can take place at any time. The offer is accompanied by an automated process designed to overcome manual creation, validation, signing, installation, and renewal of certificates for secure websites. Let's Encrypt was launched in 2016. † i letsencrypt.org

Letter spacing

An optically consistent degree of increase (or sometimes decrease) of space between letters to affect visual density in a line or block of text. Letter spacing should not be confused with kerning. Letter spacing refers to a uniform adjustment to the spacing of a word or block of text affecting its density and texture. †

Lexical scope

Name resolution depending on the location in the source code and the lexical context (also called static context), which is defined by where the named variable or function is defined. In lexical scope, if a variable name's scope is a certain function, then its scope is the program text of the function definition; within that text, the variable name exists, and is bound to the variable's value, but outside that text, the variable name does not exist. †

Library

Typically used in connection with JavaScript, a collection of pre-written scripts which allows for easier development of JavaScript-based applications. †

Library World Wide Web

A modular client-side web API for Unix and Windows. "libwww" is also the name of the reference implementation of the libwww API. It has been used for applications of varying sizes, including web browsers, editors, Internet bots, and batch tools. libwww was first released in 1992. † i w3.org/Library

libwww

→ Library World Wide Web

LIFO

→ Last In, First Out

Ligature

The joining of two or more graphemes or letters as a single glyph. An example is the character "æ" as used in English, in which the letters "a" and "e" are joined. The common ampersand ("&") developed from a ligature in which the handwritten Latin letters "e" and "t" (spelling "et," from the Latin for "and") were combined. †

Light Mode

A color scheme that uses dark-colored text, icons, and interface elements on a light background.

Often a display default.

Lighthouse

An automated tool for measuring the quality of web pages. Lighthouse audits performance, accessibility, development best practices, and search engine optimization, and it includes the ability to test progressive web apps (PWAs) for PWA compliance. Lighthouse is developed by Google. † is.gd/cMiBtJ

Lightweight Directory Access Protocol

An industry-standard application protocol for accessing and maintaining distributed directory information services over an Internet Protocol (IP) network. Directory services play an important role in developing intranet and Internet applications by allowing the sharing of information about users, systems, networks, services, and applications throughout the network. A common use of LDAP is to provide a central place to store usernames and passwords. This allows many different applications and services to connect to the LDAP server to validate users.

†

Lightweight markup language

A markup language with simple, unobtrusive syntax. A lightweight markup language (LML) is designed to be easy to write using any generic text editor and easy to read in its raw form. LMLs are used in applications where it may be necessary to read the raw document as well as the final rendered output. Examples include BBCode, Markdown, and Textile. †

Likert scale

A psychometric scale, typically ranging from “strongly disagree” to “strongly agree,” that is commonly involved in research that employs questionnaires. A Likert scale is the most widely used approach to scaling responses in survey research, such that the term is often used interchangeably with “rating scale.” The Likert scale is named after its inventor, psychologist Rensis Likert. †

Line box

A line (rectangular area) formed by inline boxes.

Line ending

→ Newline

Line feed

→ Newline

Line spacing

→ Leading

Line terminator

→ Newline

Linear Responsibility Chart

→ Responsibility Assignment Matrix

Lines of Code

A software metric used to measure the size of a computer program by counting the number of lines in the text of the program’s source code. LOC (and SLOC, Source Lines of Code) is typically used to predict the amount of effort that will be required to develop a program, as well as to estimate programming productivity or maintainability once the software is produced.

†

Link

A reference from one web resource to another web resource, established through the use of an anchor.

Link equity

The search engine optimization (SEO) concept of links passing authority and value to the respective link target.

Link farm

Any group of websites that hyperlink to other sites in the group for the purpose of increasing SERP rankings. Although some link farms can be created by hand, most are created through automated programs and services. A link farm is a form of spamming the index of a web search engine (sometimes called spamdexing). †

Link juice

→ Link equity

Link rot

The phenomenon of hyperlinks tending over time to cease to point to their originally targeted file, web page, or server due to that resource being relocated or becoming permanently unavailable. A link that no longer points to its target, often called a broken or dead link, is a specific form of dangling pointer. The rate of link rot is a subject of study and research due to its significance to the Internet's ability to preserve information. Estimates of that rate vary dramatically between studies. †

Linked Data

Structured data which is interlinked with other data so it becomes more useful through semantic queries. Linked Data builds upon standard web technologies such as HTTP, RDF, and URIs, but rather than using them to serve web pages only for human readers, it extends them to share information in a way that can be read automatically by computers. Part of the vision of Linked Data is for the Internet to become a global database. †

Linter

A tool that analyzes source code to flag programming errors, bugs, stylistic errors, and suspicious constructs. The term "lint" originates from a Unix utility built in 1978 that examined C language source code. †

Linting

The processing of source code through a linter.

Linux

A family of Unix-like operating systems based on the Linux kernel, an operating system kernel first released in 1991 by Linus Torvalds. Linux is typically packaged in a Linux distribution. Distributions include the Linux kernel and supporting system software and libraries, many of which are provided by the GNU Project. Popular Linux distributions include Debian, Fedora, and Ubuntu. Linux was originally developed for personal computers based on the Intel x86 architecture, but has since been ported to more platforms than any other operating system. Linux is the leading operating system on servers and other big iron systems such as mainframe computers, and the only OS used on TOP500 supercomputers. Linux is one of the most prominent examples of free and open source software collaboration. †

Linux Standard Base

A joint project by several Linux distributions under the organizational structure of the Linux Foundation to standardize the software system structure, including the Filesystem Hierarchy Standard used in the Linux kernel. The LSB is based on the POSIX specification, the Single UNIX Specification (SUS), and several other open standards, but extends them in certain areas.

†

Linux, Apache, MySQL, PHP/Perl/Python

An archetypal model of web service stacks, named as an acronym (“LAMP”) of the names of its original four open source components: the Linux operating system, the Apache HTTP Server, the MySQL relational database management system (RDBMS), and the PHP programming language. The LAMP components are largely interchangeable and not limited to the original selection. As a solution stack, LAMP is suitable for building dynamic websites and applications.

†

Liquid

A web design approach in which page elements have a variable as opposed to a fixed width. Liquid design is a predecessor of responsive design.

LIS → Location information server

Liskov Substitution Principle

A particular definition of a subtyping relation, called (strong) behavioral subtyping, that was initially introduced in 1987 by Barbara Liskov. The Liskov Substitution Principle is a semantic rather than merely syntactic relation, because it intends to guarantee semantic interoperability of types in a hierarchy, particularly of object types. Liskov’s notion of a behavioral subtype defines a notion of substitutability for objects; that is, if S is a subtype of T, then objects of type T in a program may be replaced with objects of type S without altering any of the desirable properties of that program (e.g., correctness). †

Lisp/LISP

A family of programming languages with a long history and a distinctive, fully parenthesized prefix notation. Originally specified in 1958, Lisp is the second-oldest high-level programming language in widespread use today; only Fortran is older, by one year. The name “LISP” derives from “LISt Processor.” Lisp was originally created as a practical mathematical notation for computer programs. It has changed since its early days, and many dialects have existed over its history. Today, the best-known general-purpose Lisp dialects are Racket, Common Lisp, Scheme, and Clojure. †

Lit A library for building web components. Lit, or “Lit 2.0,” was released in 2021. [i lit.dev](https://lit.dev)

Lite Mode

A data saving mode in the Chrome browser, formerly called “Data Saver.”

LitElement

A JavaScript class for creating web components. Since 2021, LitElement is a part of Lit. [i is.gd/3Xte9p](https://is.gd/3Xte9p)

Literal

A notation for representing a fixed value in source code. Almost all programming languages have notations for atomic values such as integers, floating-point numbers, and strings, and usually for Booleans and characters; some also have notations for elements of enumerated

types and compound values such as arrays, records, and objects. An anonymous function is a literal for the function type. †

Little's Law

A theorem by John Little which states that the long-term average number L of customers in a stationary system is equal to the long-term average effective arrival rate λ multiplied by the average time W that a customer spends in the system: $L = \lambda/W$. The result applies to any system, and particularly, it applies to systems within systems. †

LML

→ Lightweight markup language

Load balancer

→ Load balancing

Load Balancer Capacity Unit

A unit used to measure Amazon load balancer processing and billing. LCUs are based on up to four dimensions, depending on the type of load balancer: new connections or flows, active connections or flows, processed bytes, and rule evaluations.

Load balancing

The process of distributing a set of tasks over a set of resources (computing units), with the aim of making their overall processing more efficient. Load balancing can optimize the response time and avoid unevenly overloading compute nodes while other compute nodes are left idle.

†

Load time

The time it takes for a page to load, measured from navigation start to the start of the load event. While page load time appears like the perfect web performance metric, it is not. Load times can vary greatly between users depending on device capabilities, network conditions, and, to a lesser extent, distance from the server. The development environment, where page load time is measured, is likely an optimal experience, not reflective of users' reality. In addition, web performance is not just about when the load event happens; it is also about perceived performance, responsiveness, jank, and jitter. ‡

LOC

→ Lines of Code

Local

→ Local scope

Local area network

A computer network that interconnects computers within a limited area such as a residence, laboratory, school, university campus, or office building. By contrast, a wide area network (WAN) covers a larger geographic distance. Ethernet and Wi-Fi are the two most common technologies in use for local area networks. †

Local scope

A characteristic of variables that makes them local (i.e., the variable name is only bound to its value within a scope which is not the global scope). ‡

Local storage

Web storage data that is per-origin and available to all scripts loaded from pages from the same origin, and that persists after the browser is closed. †

Local variable

A variable that is given local scope. Local variable references in the function or block in which it is declared override the same variable name in the larger scope. In programming languages with only two levels of visibility, local variables are contrasted with global variables. On the other hand, many ALGOL-derived languages allow any number of nested levels of visibility, with private variables, functions, constants, and types hidden within them, either by nested blocks or nested functions. Local variables are fundamental to procedural programming, and more generally modular programming. Variables of local scope are used to avoid issues with side effects that can occur with global variables. †

Local-part

The first part of an email address. It may use any of the following ASCII characters: uppercase and lowercase Latin letters “A” to “Z” and “a” to “z”; digits “0” to “9”; the printable characters “!”, “#”, “\$”, “%”, “&”, “'”, “*”, “+”, “-”, “/”, “=”, “?”, “^”, “_”, “{”, “|”, “}”, and “~”; and dots (“.”), provided that a dot is not the first or last character unless quoted, and provided also that it does not appear consecutively unless quoted (i.e., jane.doe@example.com is not allowed). †

Locale

A set of parameters that defines the user’s language, region, and any special variant preferences that the user wants to see in their user interface. Usually a locale identifier consists of at least a language code and a country or region code. †

Localization

The process of adapting internationalized software for a specific region or language by translating text and adding locale-specific components. Localization (which is potentially performed multiple times, for different locales) uses the infrastructure or flexibility provided by internationalization (which is ideally performed only once before localization, or as an integral part of ongoing development). †

Location information server

A network node originally defined in the U.S. National Emergency Number Association’s i2 network architecture that addresses the intermediate solution for providing e911 emergency service for users of VoIP telephony. The LIS is the node that determines the location of the VoIP terminal. Beyond the NENA architecture and VoIP, the LIS is capable of providing location information to any IP device within its served access network. †

Lock file

→ File locking

Log file

A file that records either events that occur in an operating system or other software runs, or messages between different users of a communication software. In the simplest case, messages are written to a single log file. A transaction log is a file (i.e., log) of the communications between a system and the users of that system, or a data collection method that automatically captures the type, content, or time of transactions made by a person from a terminal with that system. Many operating systems, software frameworks and programs include a logging system. A widely used logging standard is syslog. †

Logging

The act of keeping a log file. †

Logical properties

A CSS module introducing properties and values that provide the ability to control layout through logical, rather than physical, direction, and dimension mappings. The module also defines logical properties and values for properties previously defined in CSS 2.1. ‡ i w3.org/TR/css-logical-1

Login

The option, process, or credentials by which an individual gains access to a computer system. The user credentials are typically some form of username and a matching password, and these credentials themselves are sometimes referred to as a “login.” In practice, modern secure systems often require a second factor for extra security, like email or SMS confirmation. †

Logon

→ Login

Long task

Any uninterrupted period where the main UI thread is busy for 50 ms or longer. Common examples include long running event handlers, expensive reflows and other re-renders, and work the browser does between different turns of the event loop. ‡ i w3c.github.io/longtasks

Long-Term Support

A product lifecycle management policy in which a stable release of computer software is maintained for a longer period of time than the standard edition. The term is typically reserved for open source software, where it describes a software edition that is supported for months or years longer than the software’s standard edition. †

longdesc

An obsolete HTML attribute that allowed to add a URL to a long description of an image (as defined by the `img` element). It is instead recommended to use a standard `a` element to link to the respective description.

Look and feel

A term used with respect to a graphical user interface and comprises aspects of its design, including elements such as colors, shapes, layout, and typefaces (the “look”), as well as the behavior of dynamic elements such as buttons, boxes, and menus (the “feel”). “Look and feel” is used in reference to both software and websites. †

Loop

A sequence of statements which is specified once but which may be carried out several times in succession. The code “inside” the loop (the body of the loop) is obeyed a specified number of times, or once for each of a collection of items, or until some condition is met, or indefinitely. In functional programming languages loops can be expressed by using recursion or fixed point iteration rather than explicit looping constructs. Examples for loops include `for` loops, `while` and `do while` loops, `foreach`, and infinite loops. †

Lorem ipsum

→ Placeholder text

Lossless

A class of data compression algorithms that allows the original data to be perfectly reconstructed from the compressed data. Lossless compression is used in cases where it is important that the original and the decompressed data be identical, or where deviations from the original

data would be unfavorable. Typical examples are executable programs, text documents, and source code. Some image file formats, like PNG or GIF, use only lossless compression. †

Lossy

A class of data encoding methods that uses inexact approximations and partial data discarding to represent the content. These techniques are used to reduce data size for storing, handling, and transmitting content. Well-designed lossy compression technology often reduces file sizes significantly before degradation is noticed by the end user. Even when noticeable by the user, further data reduction may be desirable (e.g., for real-time communication, to reduce transmission times, or to reduce storage needs). Lossy compression is most commonly used to compress multimedia data (audio, video, and images), especially in applications such as streaming media and Internet telephony. †

Love-at-first-sight pattern

A pattern of user behavior in which the gaze of a user, as determined by eye tracking, predominantly fixates on one item, like a search engine result.

Low vision

→ Visual impairment

LRC

→ Linear Responsibility Chart

LSB → Linux Standard Base

LTR

→ Left-to-right

LTS → Long-Term Support

Lynx

A customizable text-based web browser for use on cursor-addressable character cell terminals. Lynx was released in 1992; as of 2019, it is the oldest web browser still in general use and active development. † i lynx.invisible-island.net



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

M

MAC

→ Message Authentication Code

MAC address

A unique identifier assigned to a network interface controller (NIC) for use as a network address in communications within a network segment. This use is common in most IEEE 802 networking technologies, including Ethernet, Wi-Fi, and Bluetooth. Within the Open Systems Interconnection (OSI) network model, MAC addresses are used in the medium access control protocol sublayer of the data link layer. As typically represented, MAC addresses are recognizable as six groups of two hexadecimal digits, separated by hyphens, colons, or without a separator. MAC addresses are primarily assigned by device manufacturers. †

Mac OS

→ macOS

Machine Learning

The scientific study of algorithms and statistical models that computer systems use to perform a specific task without using explicit instructions, relying on patterns and inference instead. It is seen as a subset of artificial intelligence. Machine learning algorithms build a mathematical model based on sample data, known as “training data,” in order to make predictions or decisions without being explicitly programmed to perform the task. Machine learning algorithms are used in a wide variety of applications, such as email filtering and computer vision, where it is difficult or infeasible to develop a conventional algorithm for effectively performing the task. Machine learning is closely related to computational statistics, which focuses on making predictions using computers. †

macOS

A series of proprietary graphical operating systems developed and marketed by Apple since 2001. macOS is the primary operating system for Apple’s Mac computers. Within the market of desktop, laptop, and home computers, and by web usage, it is the second most widely used desktop OS after Microsoft Windows. macOS is the second major series of Macintosh operating systems. The first is colloquially called the classic Mac OS, which was introduced in 1984, and the final release of which was Mac OS 9 in 1999. The first desktop version, Mac OS X 10.0, was released in March 2001, with its first update, 10.1, arriving later that year. macOS is based on the Unix operating system. † [i apple.com/macos](https://www.apple.com/macos)

macOS, Apache, MySQL, PHP/Perl/Python

A solution stack composed of free and open source software running with proprietary commercial software, to serve dynamic websites on computers running macOS. MAMP can be used to develop websites that use popular current technologies, on a stand-alone desktop or laptop computer without the need for a separate web server. The name “MAMP” is an

acronym representing the original components of the system: macOS, the operating system; Apache, the web server; MySQL, the database management system; and PHP, Perl, or Python, programming languages used for web development. MAMP is not limited to these choices of components, however; NGINX can be used in place of Apache, for example. †

Macromedia Flash

→ Flash

MacWWW

An early minimalist web browser from 1992 meant to run on Macintosh computers. It was the first web browser for the classic Mac OS platform, and the first for any non-Unix operating system. MacWWW tries to emulate the design of WorldWideWeb. Unlike modern browsers it opens each link in a new window only after a double-click. †

Magic code

An informal term for abstraction, used to describe code that handles complex tasks while hiding the respective complexity to present a simple interface. The term is somewhat tongue-in-cheek, and often carries bad connotations, implying that the true behavior of the code is not immediately apparent. †

Magic cookie

→ Cookie

Mail

→ Email

Main thread

The thread on which a browser processes user events and paints. By default, the browser uses a single thread to run all the JavaScript on a page, as well as to perform layout, reflows, and garbage collection. This single thread is why long-running JavaScript functions can block the thread, leading to an unresponsive page and a bad user experience. ‡

Maintainability

The ease with which a product can be maintained in order to correct defects or their cause, repair or replace faulty or worn-out components without having to replace still working parts, prevent unexpected working conditions, maximize a product's useful life, maximize efficiency, reliability, and safety, meet new requirements, make future maintenance easier, or cope with a changed environment. †

Maintenance

The functional checking, servicing, repairing, or replacing of necessary devices, equipment, machinery, building infrastructure, supporting utilities, and also software in industrial, business, governmental, and residential installations. Over time, maintenance has come to include multiple wordings that describe various cost-effective practices to keep equipment operational; these activities take place either before or after a failure. †

Makefile

A file (named "Makefile" by default) containing a set of directives used by a make build automation tool to generate a target. A makefile works upon the principle that files only need recreating if their dependencies are newer than the file being created. The makefile is recursively carried out until everything has been updated and the ultimate target is complete. †

MAM

→ Media Asset Management

MAMP

→ macOS, Apache, MySQL, PHP/Perl/Python

Man-in-the-middle attack

An attack where the attacker secretly relays and possibly alters the communications between two parties who believe that they are directly communicating with each other. One example of a MITM attack is active eavesdropping, in which the attacker makes independent connections with the victims and relays messages between them to make them believe they are talking directly to each other over a private connection, when in fact the entire conversation is controlled by the attacker. †

Manifesto for Agile Software Development

A seminal document that describes key values and principles of the Agile philosophy. It was conceived in 2001. [i agilemanifesto.org](http://agilemanifesto.org)

Margin

Per the CSS box model, the margin area of a box, that is, an element of a document. The margin area lies outside the border area of a box.

Margin collapsing

The joining of two adjacent vertical margins in the same block formatting context. In many cases margins are adjoining and do collapse, but there are exceptions, as when margins of the root element are concerned.

Markdown

A lightweight markup language with plain-text formatting syntax. Its design allows it to be converted to many output formats, but the original tool by the same name only supports HTML. Markdown is often used to format README files, for writing messages in online discussion forums, and to create rich text using a plain-text editor. Markdown was first released in 2004.

† [i is.gd/bkp5lM](http://is.gd/bkp5lM)

Marketing

The study and management of exchange relationships. Marketing is the business process of creating relationships with and satisfying customers. Because marketing is used to attract customers, it is one of the primary components of business management and commerce. Marketers can direct product to other businesses (B2B marketing) or directly to consumers (B2C marketing). †

Markup

→ Markup language

Markup language

A system for annotating a document in a way that is syntactically distinguishable from the text. The idea and terminology evolved from the “marking up” of paper manuscripts (i.e., the revision instructions by editors), which is traditionally written with a red or blue pencil on authors’ manuscripts. In digital media, this “blue pencil instruction text” was replaced by tags, which indicate what the parts of the document are, rather than the details of how they might be shown on some display. This lets authors avoid formatting every instance of the same kind of thing redundantly (and possibly inconsistently). It also avoids the specification of fonts and

dimensions which may not apply to many users (such as those with different-size displays, impaired vision, and screen-reading software). Some markup languages, such as the widely used HTML, have pre-defined presentation semantics. Others, such as XML and its predecessor SGML, allow but do not impose such prescriptions—all the while allowing users to define any custom document components as they wish. †

Massively Parallel Processing

The use of a large number of computer processors (or separate computers) to simultaneously perform a set of coordinated computations in parallel. One approach for MPP is grid computing, where the processing power of many computers in distributed domains is opportunistically used whenever a computer is available. Another approach is grouping many processors in close proximity to each other, as in a computer cluster. †

Masthead

A publication's masthead is a printed list, published in a fixed position in each edition, of its owners, departments, officers, contributors, and address details, which in British English usage is known as imprint. In the UK and other Commonwealth nations, the masthead is a publication's designed title as it appears on the front page, which in American English is known as the nameplate or "flag." †

Material Design

A design language, developed in 2014 by Google. Expanding on the "card" motifs that debuted in Google Now, Material Design uses more grid-based layouts, responsive animations and transitions, padding, and depth effects such as lighting and shadows. † i material.io/design

Mathematical markup language

A computer notation for representing mathematical formulae, based on mathematical notation. Specialized markup languages are necessary because computers normally deal with linear text and more limited character sets (although increasing support for Unicode is obsoleting simple uses). A formally standardized syntax also allows a computer to interpret otherwise ambiguous content, for rendering or even evaluating. For computer-interpretable syntaxes, the most popular are TeX/LaTeX and MathML. †

Mathematical Markup Language

An application of XML for describing mathematical notations and capturing both its structure and content. MathML aims at integrating mathematical formulae into World Wide Web pages and other documents. It is part of HTML and an ISO standard ISO/IEC DIS 40314 since 2015. † i w3.org/Math

MathML

→ Mathematical Markup Language

MAU

→ Monthly Active Users

Maven

A build automation tool primarily used for Java projects that can also be used to build and manage projects written in C#, Ruby, Scala, and other languages. The Maven project is hosted by the Apache Software Foundation, where it was formerly part of the Jakarta Project. It was first released in 2004. † i maven.apache.org

MD → Markdown

MD2

A cryptographic hash function developed in 1989 by Ronald Rivest, whose initialism “MD” stands for “Message Digest.” The algorithm is optimized for 8-bit computers. MD2 is specified in RFC 1319 and no longer considered secure. †

MD4

A cryptographic hash function developed in 1990 by Ronald Rivest. The digest length is 128 bits. The algorithm has influenced later designs, such as the MD5, SHA-1, and RIPEMD algorithms. The security of MD4 has been severely compromised. †

MD5

A widely used hash function that produces a 128-bit hash value. Although MD5 was initially designed to be used as a cryptographic hash function, it has been found to suffer from extensive vulnerabilities. It can still be used as a checksum to verify data integrity, but only against unintentional corruption. It remains suitable for other non-cryptographic purposes, for example for determining the partition for a particular key in a partitioned database. MD5 was designed in 1991 by Ronald Rivest to replace the earlier hash function MD4, and was specified in 1992 as RFC 1321. †

MD6

A cryptographic hash function. It uses a Merkle tree-like structure to allow for immense parallel computation of hashes for long inputs. Authors claim a performance of 28 cycles per byte for MD6-256 on an Intel Core 2 Duo and provable resistance against differential cryptanalysis. †

MDL

→ Microsoft Design Language

MDN

→ Mozilla Developer Network

MDN Web Docs

A learning platform for web technologies and software that power the Web, including HTML, CSS, and JavaScript. The MDN Web Docs aim to “provide developers with the information they need to easily build projects on the open Web.” The project was started in 2005. † i developer.mozilla.org

MDX

A format that allows to write JSX in Markdown, including the importing of components. i mdxjs.com

MEAN

A JavaScript software stack for building dynamic websites and applications. The MEAN stack is MongoDB, Express.js, AngularJS (or Angular), and Node.js. Because all components of the MEAN stack support programs that are written in JavaScript, MEAN applications can be written in one language for both client- and server-side execution environments. The “MEAN” acronym was coined in 2013. †

Media

The communication outlets or tools used to store and deliver information or data. The term refers to components of the mass media communications industry, such as print media, publishing, the news media, photography, cinema, broadcasting (radio and television), and advertising. †

Media access control address

→ MAC address

Media Asset Management

A special type of Digital Asset Management (DAM) that helps to organize media like images, audio, and video.

Media query

A CSS specification allowing content rendering to adapt to conditions such as screen resolution (e.g., smartphone screen vs. computer screen) by so-called `@media` rules. *Media Queries* became a W3C recommended standard in 2012 and is a cornerstone of responsive web design (RWD).

† [i w3.org/TR/css3-mediaqueries](http://w3.org/TR/css3-mediaqueries)

Media type

→ MIME type

Medium integer

An integral data type of 24 bits, with a signed range from $-8,388,608$ to $8,388,607$, and an unsigned range from 0 to 16,777,215.

Mega menu

A particularly large and structured (for example, using several columns) type of navigation menu.

Memoization

An optimization technique used primarily to speed up computer programs by storing the results of expensive function calls and returning the cached result when the same inputs occur again. Memoization has also been used in other contexts (and for purposes other than speed gains), such as in simple mutually recursive descent parsing. Although related to caching, memoization refers to a specific case of this optimization, distinguishing it from forms of caching such as buffering or page replacement. In the context of some logic programming languages, memoization is also known as tabling. †

Menu

A list of options or commands presented to the user of a computer or communications system. A menu may either be a system's entire user interface, or only part of a more complex one. †

Merge request

A request to merge a version-controlled branch into another branch.

Merging

A fundamental operation that reconciles multiple changes made to a version-controlled collection of files. Most often, merging is necessary when a file is modified on two independent branches and then brought together. The result is a single collection of files that contains both sets of changes. In some cases, the merge can be performed automatically, because there is sufficient history information to reconstruct the changes, and the changes do not conflict. In other cases, a person must decide exactly what the resulting files should contain. Many version control software tools include merge capabilities. †

Message Authentication Code

A short piece of information used to authenticate a message, that is, to confirm that the message came from the stated sender (its authenticity) and has not been changed. The MAC value

protects a message's data integrity, as well as its authenticity, by allowing verifiers (who also possess the secret key) to detect any changes to the message content. †

Message Digest

→ MD2

→ MD4

→ MD5

→ MD6

Meta element

An HTML element that can provide structured metadata about a web page. Meta elements are part of a web page's head section. Multiple meta elements with different attributes can be used on the same page. Meta elements can be used to specify a page's description, keywords, and other metadata. The HTML `meta` element has two uses: to emulate the use of an HTTP response header field, and to embed additional metadata within the HTML document. †

Metadata

Data that provides information about other data, or data about data. There are many distinct types of metadata, including descriptive, structural, administrative, reference, and statistical metadata. †

Metadata content

Content that sets up the presentation or behavior of the rest of the content, or that sets up the relationship of a document with other documents, or that conveys other "out of band" information. Metadata content is marked up through the `base`, `link`, `meta`, `noscript`, `script`, `style`, `template`, and `title` elements. §

Method

A procedure associated with a message and an object. An object consists of data and behavior. The data and behavior comprise an interface, which specifies how the object may be utilized by any of various consumers of the object. Data is represented as properties of the object and behaviors are represented as methods of the object. For example, a `Window` object could have methods such as `open` and `close`, while its state (whether it is opened or closed at any given point in time) would be a property. In class-based programming, methods are defined in a class, and objects are instances of a given class. †

Method stub

→ Stub

Metro

→ Microsoft Design Language

MFA

→ Multi-factor authentication

Microformat

An approach to semantic markup which uses HTML elements supported for other purposes to convey additional metadata and other attributes in web pages and other contexts that support HTML, such as RSS. Microformats allow software to process information intended for end users (such as contact data, geographic coordinates, calendar events, and similar information) automatically. Although the content of web pages has been capable of some "automated

processing” since the inception of the Web, such processing is difficult because the markup elements used to display information on the Web do not always describe what the information means. Microformats can bridge this gap by attaching semantics, and thereby obviate other, more complicated, methods of automated processing, such as natural language processing or screen scraping. † i microformats.org

Microservice

A service that is small in size, messaging-enabled, bounded by contexts, autonomously developed, independently deployable, decentralized, and built and released with automated processes. †

Microservice architecture

A variant of the service-oriented architecture (SOA) structural style that arranges an application as a collection of loosely coupled services. In a microservices architecture, services are fine-grained and the protocols are lightweight. †

Microsite

An individual web page or a small cluster of pages which are meant to function as a discrete entity within an existing website, or to complement an offline activity. The microsite’s main page can have its own domain or subdomain. †

Microsoft Active Accessibility

An API for user interface accessibility. MSAA was introduced in 1997 as a platform add-on to Microsoft Windows 95. MSAA is designed to help assistive technology products interact with standard and custom user interface elements of an application (or the operating system), as well as to access, identify, and manipulate an application’s UI elements. †

Microsoft Design Language

A design language created by Microsoft. MDL is focused on typography and simplified icons, absence of clutter, increased content to chrome ratio (“content before chrome”), and basic geometric shapes. Early examples of MDL principles can be found in Encarta 95 and MSN 2.0. The design language evolved in Windows Media Center and Zune and was formally introduced as Metro during the unveiling of Windows Phone 7. It has since been incorporated into several of the company’s other products, including the Xbox 360 system software, Xbox One, Windows 8, Windows Phone, and Outlook. †

Microsoft Edge

→ Edge

Microsoft FrontPage

→ FrontPage

Microsoft Silverlight

→ Silverlight

Microsoft Windows

→ Windows

Microtask

A task to be run after a currently executed script. Microtasks are run in order, and include promise callbacks, intersection observer callbacks, and mutation observer callbacks.

Middleware

Computer software that provides services to software applications beyond those available from

the operating system. It can be described as “software glue.” Middleware makes it easier for software developers to implement communication and input/output, so they can focus on the specific purpose of their application. It gained popularity in the 1980s as a solution to the problem of how to link newer applications to older legacy systems, although the term had been in use since 1968. †

Millennium bug

→ Year 2000 problem

MIME

→ Multipurpose Internet Mail Extensions

MIME sniffing

The practice of inspecting the content of a byte stream to attempt to deduce the file format of the data within it. MIME sniffing is generally used to compensate for a lack of accurate metadata that would otherwise be required to enable the file to be interpreted correctly. MIME and content sniffing techniques tend to use a mixture of techniques that rely on redundancy found in most file formats. †

MIME type

A two-part identifier for file formats and format contents transmitted on the Internet, like `text/plain`. The Internet Assigned Numbers Authority (IANA) is the official authority for the standardization and publication of these classifications. Media types were originally defined in 1996 in Request for Comments 2045 as a part of MIME (Multipurpose Internet Mail Extensions) specification, for denoting type of email message content and attachments. †

Mini Program

A sub-application for the WeChat messaging, social media, and payment app. Mini Programs are developed using a framework consisting of the WeiXin Markup Language (WXML), WeiXin Style Sheets (WXSS), and WeiXin Script (WXS). i bit.ly/38buLwe

Minification

The process of removing all unnecessary characters from the source code of interpreted programming languages or markup languages without changing their functionality. These unnecessary characters usually include white space characters, new line characters, comments, and sometimes block delimiters, which are used to add readability to the code but are not required for it to execute. Minification reduces the size of the source code, making its transmission over a network (e.g., the Internet) more efficient. †

Minifier

A software that removes all unnecessary characters from markup, style sheets, scripts, and other source code.

Minimum Viable Product

A version of a product with just enough features to satisfy early customers and provide feedback for future product development. Gathering insights from an MVP is often less expensive than developing a product with more features, which increases costs and risk if the product fails. †

MIP

→ Mobile Instant Pages

MITM

→ Man-in-the-middle attack

Mixin

A class that contains methods for use by other classes without having to be the parent class of those other classes. How those other classes gain access to the mixin's methods depends on the language. Mixins are sometimes described as being “included” rather than “inherited.” Mixins encourage code reuse and can be used to avoid the inheritance ambiguity that multiple inheritance can cause, or to work around lack of support for multiple inheritance in a language. A mixin can also be viewed as an interface with implemented methods. This pattern is an example of enforcing the Dependency Inversion Principle. †

ML → Machine Learning

→ Markup language

Mobile

In computing, human-computer interaction in which a computer is expected to be transported during normal usage, which allows for transmission of data, voice, and video. Mobile computing involves mobile communication, mobile hardware, and mobile software. Communication includes *ad hoc* networks and infrastructure networks as well as communication properties, protocols, data formats, and concrete technologies. †

Mobile First

A form of progressive enhancement and an approach to web development and web design that focuses on prioritizing design and development for mobile screen sizes over design and development for desktop screen sizes. The rationale behind the mobile-first approach is to provide users with good user experiences at all screen sizes—by starting with creating a user experience that works well on small screens, and then building on top of that to further enrich the user experience as the screen size increases. The mobile-first approach contrasts with the older approach of designing for desktop screen sizes first, and then only later adding some support for small screen sizes. ‡

Mobile Instant Pages

A mobile-centered web development and publishing framework similar to Accelerated Mobile Pages (AMP). MIP was developed by Baidu; it was released in 2016, and discontinued in 2020. [i mipengine.org](http://mipengine.org)

Mobilegeddon

A name for Google's search engine algorithm update of April 21, 2015. The term “Mobilegeddon” was coined by Chuck Price in a post written for *Search Engine Watch* on March 9, 2015, and then adopted by webmasters and web developers. The main effect of the update was to give priority to websites that display well on smartphones and other mobile devices. The change did not affect searches made from a desktop computer or a laptop. †

Mocha

→ JavaScript

Modal

A graphical control element subordinate to an application's main window. It creates a mode that disables the main window but keeps it visible, with the modal window as a child window

in front of it. Users must interact with the modal window before they can return to the parent application. This avoids interrupting the workflow on the main window. Modal windows are sometimes called heavy windows or modal dialogs because they often display a dialog box. †

Model-View-Controller

A software design pattern commonly used for developing user interfaces which divides the related program logic into three interconnected elements. This is done to separate internal representations of information from the ways information is presented to and accepted from the user. Traditionally used for desktop graphical user interfaces (GUIs), this pattern has become popular for designing web applications. Popular programming languages like JavaScript, Python, Ruby, PHP, Java, C#, and Swift have MVC frameworks that are used for web or mobile application development straight out of the box. †

Model-View-Viewmodel

A software architectural pattern. MVVM facilitates a separation of the development of the graphical user interface, be it via a markup language or GUI code, from the development of the business logic or backend logic (the data model). The view model of MVVM is a value converter, meaning the view model is responsible for exposing (converting) the data objects from the model in such a way that objects are easily managed and presented. †

Modernizr

A JavaScript library that detects the features available in a user's browser. This lets web pages avoid unsupported features by informing the user their browser is not supported or loading a polyfill. Modernizr aims to provide feature detection in a consistent and easy to use manner that discourages the use of failure-prone browser sniffing. Modernizr was first released in 2009, and last updated in 2017. † [i modernizr.com](http://modernizr.com)

Modular design

A design theory and practice that subdivides a system into smaller parts called modules, which can be independently created, modified, replaced, or exchanged between different systems. †

Module

→ Component

Monolith

A single-tiered software application in which the user interface and data access code are combined into a single program from a single platform. A monolithic application is self-contained, and independent from other computing applications. In its original use, the term “monolithic” described enormous mainframe applications with no usable modularity. This, in combination with rapid increase in computational power and therefore rapid increase in the complexity of the problems which could be tackled by software, resulted in unmaintainable systems and the “software crisis.” †

Monolithic application

→ Monolith

Monorepo

A software development strategy where code for many projects is stored in the same repository. †

Monthly Active Users

→ Active Users

Mosaic

The web browser that popularized the World Wide Web and the Internet. Mosaic was also a client for earlier Internet protocols such as File Transfer Protocol, Network News Transfer Protocol, and Gopher. The browser was named for its support of multiple Internet protocols. Its intuitive interface, reliability, Microsoft Windows port, and simple installation all contributed to its popularity within the Web, as well as on Microsoft operating systems. Mosaic was also the first browser to display images inline with text instead of displaying them in a separate window. It is often described as the first graphical web browser, though it was preceded by WorldWideWeb, the lesser-known Erwise, and ViolaWWW. Mosaic was first released in 1991.

†

Moving Picture Experts Group

A working group of authorities that was formed by ISO and IEC to set standards for audio and video compression and transmission, the MPEG formats. The MPEG was established in 1988 by the initiative of Hiroshi Yasuda. † i.mpeg.chiariglione.org

Mozilla Developer Center

→ MDN Web Docs

Mozilla Developer Network

→ MDN Web Docs

Mozilla Firefox

→ Firefox

MPEG

A series of audio and video compression standards developed by the Moving Picture Experts Group, including MPEG-1 (1993), MPEG-2 (1995), MPEG-4 (1998), MPEG-7 (2002), and MPEG-21 (2001).

→ Moving Picture Experts Group

MPP

→ Massively Parallel Processing

MR → Merge request**MSA**

→ Microservice architecture

MSAA

→ Microsoft Active Accessibility

MSHTML

→ Trident

MSIE

→ Internet Explorer

mTLS

→ Mutual TLS authentication

Multi-factor authentication

An authentication method in which a computer user is granted access only after successfully presenting two or more pieces of evidence (or factors) to an authentication mechanism: knowledge (something the user and only the user knows), possession (something the user and only the user has), and inherence (something the user and only the user is). †

Multimedia

Content that uses a combination of different content forms such as text, audio, images, animations, video, and interactive content. Multimedia contrasts with media that use only rudimentary computer displays such as text-only or traditional forms of printed or hand-produced material. Multimedia can be recorded and played, displayed, interacted with or accessed by information content processing devices, such as computerized and electronic devices, but can also be part of a live performance. †

Multiple inheritance

A feature of some object-oriented computer programming languages in which an object or class can inherit characteristics and features from more than one parent object or parent class. It is distinct from single inheritance, where an object or class may only inherit from one particular object or class. Multiple inheritance has been a sensitive issue for many years, with opponents pointing to its increased complexity and ambiguity in situations such as the “diamond problem,” where it may be ambiguous as to which parent class a particular feature is inherited from if more than one parent class implements said feature. This can be addressed in various ways, including using virtual inheritance. †

Multipurpose Internet Mail Extensions

An Internet standard that extends the format of email messages to support text in character sets other than ASCII, as well as attachments of audio, video, images, and application programs. Message bodies may consist of multiple parts, and header information may be specified in non-ASCII character sets. Email messages with MIME formatting are typically transmitted with standard protocols, such as the Simple Mail Transfer Protocol (SMTP), the Post Office Protocol (POP), and the Internet Message Access Protocol (IMAP). †

Muphry’s Law

An adage that states: “If you write anything criticizing editing or proofreading, there will be a fault of some kind in what you have written.” The name is a deliberate misspelling of “Murphy’s Law.” †

Murphy’s Law

An adage or epigram that is typically stated as: “Anything that can go wrong, will go wrong.” †

Mustache

A web template system. Mustache is described as a “logic-less” system because it lacks any explicit control flow statements, like `if` and `else` conditionals or `for` loops; however, both looping and conditional evaluation can be achieved using section tags processing lists and lambdas. It is named “Mustache” because of the heavy use of curly brackets, which resemble a sideways moustache. Mustache is used mainly for mobile and web applications. † [i mustache.github.io](http://i.mustache.github.io)

Mutable

A property of an object whose state can be modified after it was created (mutable or changeable object). This is in contrast to an immutable object. †

Mutation

In JavaScript, a change of the DOM tree or a change of object properties.

Mutual authentication

The mutual authenticating of two parties at the same time, in an authentication protocol. Mutual authentication is a default mode of authentication in some protocols (IKE, SSH) and optional in others (TLS). Mutual authentication is desired in verification schemes that transmit sensitive data, in order to ensure data security. It can be accomplished with two types of credentials: usernames and passwords, and public key certificates. †

Mutual TLS authentication

Mutual authentication including client-to-server authentication using client-side X.509 certificates. mTLS is more often used in business-to-business (B2B) applications, where a limited number of programmatic and homogeneous clients are connecting to specific web services, the operational burden is limited, and security requirements are usually higher as compared to consumer environments. †

MVC

→ Model-View-Controller

MVP

→ Minimum Viable Product

MVVM

→ Model-View-Viewmodel

MX A mail exchange resource record in the Domain Name System (DNS). †

MySQL

A relational database management system (RDBMS). Its name is a combination of “My,” the name of co-founder Michael Widenius’s daughter, and “SQL,” the abbreviation for Structured Query Language. MySQL was first released in 1995. † [i mysql.com](https://www.mysql.com)



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

N

n-based indexing

The option to freely choose the base index of an array. Usually programming languages allowing n-based indexing also allow negative index values and other scalar data types like enumerations, or characters may be used as an array index. †

NACK

A signal sent to reject a previously received message, or to indicate some kind of error (negative acknowledgement). †

NACL

Network → Access Control List

NAK

→ NACK

Name binding

→ Binding

Name server

A network service for providing responses to queries against a directory service. It translates an often humanly meaningful, text-based identifier to a system-internal, often numeric identification or addressing component. This service is performed by the server in response to a service protocol request. An example of a name server is the server component of the Domain Name System (DNS). †

Namespace

A namespace is a set of symbols that are used to organize objects of various kinds, so that these objects may be referred to by name. A namespace ensures that all the identifiers within it have unique names so that they can be easily identified. Prominent examples include file systems; programming languages that organize their variables and subroutines in namespaces; computer networks and distributed systems that assign names to resources, such as computers, printers, websites, (remote) files, etc.; and operating systems that partition kernel resources (process IDs, users, network sockets) by isolated namespaces to support virtualization containers. †

NaN

→ Not a Number

NAT

→ Network Address Translation

National Institute of Standards and Technology

A physical sciences laboratory and non-regulatory agency of the United States Department of Commerce. Its mission is to promote American innovation and industrial competitiveness. NIST's activities are organized into laboratory programs that include nano-scale science and technology, engineering, information technology, neutron research, material measurement,

and physical measurement. From 1901 to 1988, the agency was named “National Bureau of Standards.” † [i nist.gov](http://nist.gov)

Native

Software or data formats that were designed to run on a particular system. In a more technical sense, native code is code written specifically for a certain processor. The only way to run this code on another processor is to use an emulator, tricking the program into thinking it is using that same processor, which usually comes at the cost of speed. †

NativeScript

A framework to develop mobile apps on the iOS and Android platforms. NativeScript apps are built using JavaScript, or by using any programming language that transpiles to JavaScript, such as TypeScript. NativeScript supports the Angular and Vue.js JavaScript frameworks. It was first released in 2014. † [i nativescript.org](http://nativescript.org)

Natural interface

→ Natural user interface

Natural key

A type of unique key in a database formed of attributes that exist and are used in the external world outside the database (i.e., in the business domain or domain of discourse). In the relational model of data, a natural key is a superkey and is therefore a functional determinant for all attributes in a relation. †

Natural user interface

A user interface that is effectively invisible, and remains invisible as the user learns increasingly complex interactions. The word “natural” is used because most computer interfaces use artificial control devices whose operation has to be learned. Examples include voice assistants, such as Alexa and Siri, touch and multi-touch interactions on today’s mobile phones and tablets, but also touch interfaces invisibly integrated into the textiles furnitures. †

Navigation

A menu UI element for website navigation.

The process of navigating a network of information resources in the World Wide Web, which is organized as hypertext or hypermedia. The user interface that is used to do so is called a web browser. A central theme in web design is the development of a web navigation interface that maximizes usability. †

Navigator

The guiding and reviewing role in pair programming.

→ Netscape Navigator

NDA

→ Non-Disclosure Agreement

Negative space

The space around and between the subject(s) of an image or a design. Negative space may be most evident when the space around a subject, and not the subject itself, forms an interesting or artistically relevant shape, and when such space is used to artistic effect as the “real” subject of an image. †

Nesting

The organizing of information in layers, or the containing of objects in other objects. Nesting almost always refers to self-similar or recursive structures in some sense. †

Net Promoter Score

A management tool that can be used to gauge the loyalty of a firm's customer relationships. NPS serves as an alternative to traditional customer satisfaction research and is claimed to be correlated with revenue growth. The Net Promoter Score is calculated based on responses to a single question: "How likely is it that you would recommend our company, product, or service to a friend or colleague?" †

Netscape 4

→ Netscape Communicator

Netscape Communicator

The 4.0–4.8 versions of the Netscape browser memorable for web developers because of their particular support (or lack of support) of web standards.

Netscape Navigator

A proprietary web browser, and the original browser of the Netscape line, from versions 1 to 4.08, and 9.x. It was the flagship product of Netscape and was the dominant web browser in terms of usage share in the 1990s. By 2002, use of Netscape Navigator had almost disappeared. Netscape Navigator was first released in 1994. †

Network

In computing, a digital telecommunications network which allows nodes to share resources. In computer networks, computing devices exchange data with each other using connections (data links) between nodes. These data links are established over cable media such as twisted pair or fiber-optic cables, and wireless media such as Wi-Fi. Network computer devices that originate, route, and terminate the data are called network nodes. Nodes are generally identified by network addresses, and can include hosts such as personal computers, phones, and servers, as well as networking hardware such as routers and switches. Computer networks support an enormous number of applications and services such as access to the World Wide Web, digital video, digital audio, shared use of application and storage servers, printers, and fax machines, and use of email and instant messaging applications as well as many others. †

Network Address Translation

A method of remapping an IP address space into another by modifying network address information in the IP header of packets while they are in transit across a traffic routing device. NAT has become a popular and essential tool in conserving global address space in the face of IPv4 address exhaustion, as one Internet-routable IP address of a NAT gateway can be used for an entire private network. †

Network Information Center

Known as InterNIC from 1993 until 1998, an organization primarily responsible for Domain Name System (DNS) domain name allocations and X.500 directory services. From its inception in 1972 until 1991, it was run by the Stanford Research Institute, now known as SRI International. From 1991 until 1998, it was run by Network Solutions. Thereafter, the responsibility was assumed by the Internet Corporation for Assigned Names and Numbers (ICANN). † [i internic.net](http://internic.net)

Network Mapper

A network scanner. Nmap is used to discover hosts and services on a computer network by sending packets and analyzing the responses. It was created by Gordon Lyon (also known by his pseudonym Fyodor Vaskovich), and first released in 1997. † [i nmap.org](https://nmap.org)

Network packet

→ Packet

Neutral character

A character that has direction indeterminable without context. Examples include paragraph separators, tabs, and most other whitespace characters. Punctuation symbols that are common to many scripts, such as the colon, comma, full stop, and the no-break space also fall within this category. †

Newbie

A slang term for a novice or newcomer, or somebody inexperienced in a profession or activity. Contemporary use can particularly refer to a beginner or new user of computers, often concerning Internet activity, online gaming, or Linux use. Depending on the context and spelling variant used, the term can have derogatory connotations (and may be used as a term of abuse in Internet-based games), but is also often used for descriptive purposes only, without any value judgment. †

Newline

A control character or sequence of control characters in a character encoding specification (e.g., ASCII or EBCDIC) that is used to signify the end of a line of text and the start of a new one. Some text editors set this special character when pressing the Enter key (↵). †

News aggregator

Client software or a web application which aggregates syndicated web content such as online newspapers, blogs, podcasts, and video blogs (vlogs) in one location for easy viewing. The updates distributed may include journal tables of contents, podcasts, videos, and news items. Aggregation technology helps to consolidate many websites into one page that can show only the new or updated information from many sites. Aggregators reduce the time and effort needed to regularly check websites for updates, creating a unique information space or personal newspaper. †

Next.js

A frontend development web framework that enables functionality such as server-side rendering and generating static websites for React-based web applications. Next.js was released in 2016. † [i nextjs.org](https://nextjs.org)

Nexus

A framework for scaled product and software development based on Scrum. [i scrum.org/resources/nexus-guide](https://scrum.org/resources/nexus-guide)

→ WorldWideWeb

NGINX

A web server which can also be used as a reverse proxy, load balancer, mail proxy, and HTTP cache. NGINX was first released in 2004 by Igor Sysoev. As of August 2019, Netcraft estimated NGINX to serve 32% of all active websites ranked, ranking it first just above Apache at 29%. † [i nginx.com](https://nginx.com)

Night Mode

→ Dark Mode

Ninety-Ninety Rule

A humorous aphorism attributed to Tom Cargill that states: “The first 90% of the code accounts for the first 90% of the development time. The remaining 10% of the code accounts for the other 90% of the development time.” This adds up to 180%, making an allusion to the notoriety of software development projects significantly over-running their schedules. †

NIST

→ National Institute of Standards and Technology

Nmap

→ Network Mapper

Node

A basic unit of a data structure, such as a linked list or tree data structure. Nodes contain data and also may link to other nodes. Links between nodes are often implemented by pointers. †

→ Node.js

Node Package Manager

→ npm

Node.js

A cross-platform JavaScript runtime environment that executes JavaScript code outside of a browser. Node.js lets developers use JavaScript for the creation of command-line tools, or for server-side scripting to produce dynamic web page content before a page is sent to the user’s web browser. Node.js represents a “JavaScript everywhere” paradigm, unifying web application development around a single programming language, rather than different languages for client- and server-side scripts. † [i nodejs.org](http://nodejs.org)

nofollow

A setting on a hyperlink that directs search engines not to use the link for page ranking calculations. `nofollow` is a microformat which is specified as a type of link relation, e.g. `Example`. Because search engines may use the number of hyperlinks from other sites to calculate a site’s importance, the `nofollow` setting allows website authors to indicate that the presence of the link is not an endorsement of the target site’s importance. †

Nolan’s Law

→ Bushnell’s Law

Non-Disclosure Agreement

A legal contract between at least two parties that outlines confidential material, knowledge, or information that the parties wish to share with one another for certain purposes, but wish to restrict access to. Doctor-patient confidentiality (physician-patient privilege), attorney-client privilege, priest-penitent privilege, bank-client confidentiality, and kickback agreements are examples, often not enshrined in a written contract between the parties. †

Non-relational database

A database that does not use a tabular model like a relational database, and that is instead optimized for the specific data it is storing. Popular types of non-relational databases are key-value stores, column stores, graph stores, and document stores. Examples for non-relational

databases, which are also known as NoSQL databases, include Apache Cassandra, MongoDB, and Couchbase.

Nonce

An arbitrary number that can be used just once in a cryptographic communication (“number once,” “number only used once”). It is often a random or pseudo-random number issued in an authentication protocol to ensure that old communications cannot be reused in replay attacks.

†

NonVisual Desktop Access

A screen reader for Microsoft Windows. Work on NonVisual Desktop Access was started in 2006 by Michael Curran. † [i nvaccess.org](http://i.nvaccess.org)

Noob

→ Newbie

Normal form

A database normalization step that aims to reduce data redundancies and anomalies.

Normalization

The process of structuring a relational database in accordance with a series of so-called normal forms in order to reduce data redundancy and improve data integrity. Database normalization was first proposed in 1970 by Edgar F. Codd. Normalization entails organizing the columns (attributes) and tables (relations) of a database to ensure that their dependencies are properly enforced by database integrity constraints. It is accomplished by applying some formal rules either by a process of synthesis (creating a new database design) or decomposition (improving a database design). †

Normalize.css

An alternative, less aggressive form of reset style sheet that does not overwrite some user agent style sheet defaults. Normalize.css was first released in 2011 by Nicolas Gallagher. [i necolas.github.io/normalize.css](http://i.necolas.github.io/normalize.css)

Normative

Relating to an evaluative standard. Normativity is the phenomenon in human societies of designating some actions or outcomes as good or desirable or permissible and others as bad or undesirable or impermissible. A norm in this normative sense means a standard for evaluating or making judgments about behavior or outcomes. †

NoSQL

A database that provides a mechanism for storage and retrieval of data that is modeled in means other than the tabular relations used in relational databases. Such databases have existed since the late 1960s, but the name “NoSQL” was only coined in the early 21st century. NoSQL databases are increasingly used in big data and real-time web applications. NoSQL systems are also sometimes called “Not only SQL” to emphasize that they may support SQL-like query languages, or sit alongside SQL databases in polyglot persistent architectures. Motivations for NoSQL include: simplicity of design, simpler “horizontal” scaling to clusters of machines, finer control over availability, and limiting the object-relational impedance mismatch. The data structures used by NoSQL databases (e.g., key-value, column, graph, or document) are different from those used by default in relational databases, making some operations faster in NoSQL.

†

Not a Number

A member of a numeric data type that can be interpreted as a value that is undefined or unrepresentable, especially in floating-point arithmetic. Systematic use of NaNs was introduced by the IEEE 754 floating-point standard in 1985, along with the representation of other non-finite quantities such as infinities. †

npm

A package manager for the JavaScript programming language. npm is the default package manager for the JavaScript runtime environment Node.js. It consists of a command-line client, also called npm, and an online database of public and paid-for private packages, called the npm registry. The registry is accessed via the client, and the available packages can be browsed and searched via the npm website. The package manager and the registry are managed by npm. npm was created in 2010. † [i npmjs.com](http://i.npmjs.com)

NPS

→ Net Promoter Score

NS A name server resource record in the Domain Name System (DNS). †

NUI

→ Natural user interface

Null

A null value which represents a reference that points, generally intentionally, to a non-existent or invalid object or address. The meaning of a null reference varies among language implementations. In JavaScript, null is one of the primitive values. ‡

Null device

A device file that discards all data written to it but reports that the write operation succeeded. This device is called /dev/null on Unix and Unix-like systems, NUL: or NUL on DOS and CP/M, nul on newer Windows systems (internally \Device\Null on Windows NT), NIL: on Amiga operating systems, and NL: on OpenVMS. In Windows Powershell, the equivalent is \$null. The null device provides no data to any process that reads from it, yielding EOF immediately. In IBM DOS/360, OS/360 (MFT, MVT), OS/390, and z/OS operating systems, such files would be assigned in JCL to DD DUMMY. In programmer jargon, the null device may also be called the “bit bucket” or “black hole.” †

Null pointer

A value saved for indicating that the pointer or reference does not refer to a valid object. Programs routinely use null pointers to represent conditions such as the end of a list of unknown length or the failure to perform some action; this use of null pointers can be compared to nullable types and to the Nothing value in an option type. A null pointer should not be confused with an uninitialized pointer. †

Number

In JavaScript, a numeric data type in the double-precision 64-bit floating-point format (IEEE 754). In other programming languages different numeric types exist, like Integers, Floats, Doubles, or Bignums. ‡

Number sign

The symbol “#”, also known as hash, octothorpe, or (in North American usage) pound sign. The symbol has historically been used for a wide range of purposes, including the designation of an

ordinal number and as a ligatured abbreviation for “pounds avoirdupois,” having been derived from the now rare “℔”. Since 2007, widespread usage of the symbol to introduce metadata tags on social media platforms has led to such tags being known as hashtags, and from that, the symbol itself is sometimes called a hashtag. †

Numeral

→ Numerical digit

Numeric character reference

A character reference that refers to a character by its Universal Character Set or Unicode code point using the format `&#nnnn`; or `&#xhhhh`; . †

Numeric up/down

→ Spinner

Numerical digit

A single symbol (such as “2” or “5”) used alone, or in combinations (such as “25”), to represent numbers (such as the number 25) according to some positional numeral systems. The single digits (as one-digit numerals) and their combinations (such as “25”) are the numerals of the numeral system they belong to. The name “digit” comes from the fact that the ten digits (Latin *digiti*, meaning fingers) of the hands correspond to the ten symbols of the common base 10 numeral system, i.e., the decimal (ancient Latin adjective *decem*, meaning ten) digits. †

Nuxt.js

A web application framework based on Vue.js, Node.js, webpack, and Babel. The framework is advertised as a “meta-framework for universal applications.” The term “universal” refers to the goal of the framework to enable users to create web views in JavaScript via the familiar Vue.js single file component system. These views function both as in-browser single page application (SPA) views as well as server-rendered web views which are then (after server rendering) “rehydrated” to full SPA functionality. Additionally, Nuxt.js enables users to have the content, or parts of it, fully pre-rendered on the server and served in the manner of static site generators.

† [i nuxtjs.org](https://nuxtjs.org)

NVDA

→ NonVisual Desktop Access



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

O

OATH

→ Initiative for Open Authentication

OAuth

→ Open Authorization

Obfuscation

The deliberate act of creating source or machine code that is difficult for humans to understand. Like obfuscation in natural language, it may use needlessly roundabout expressions to compose statements. Programmers may deliberately obfuscate code to conceal its purpose or its logic or implicit values embedded in it (security through obscurity), primarily in order to prevent tampering, deter reverse engineering, or even as a puzzle or recreational challenge for someone reading the source code. †

Object

A variable, data structure, function, or method, and as such, a value in memory referenced by an identifier. In the class-based object-oriented programming paradigm, an object refers to a particular instance of a class, where the object can be a combination of variables, functions, and data structures. In relational database management, an object can be a table or column, or an association between data and a database entity (such as relating a person's age to a specific person). †

Object-Oriented CSS

A CSS methodology. The focus of OOCSS is the idea of treating page elements as objects, giving all these objects classes, and regarding objects' classes as single entities in style sheets. OOCSS was presented in 2009 by Nicole Sullivan. †

Object-Oriented Programming

A programming paradigm based on the concept of "objects," which can contain data, in the form of fields (often known as attributes or properties), and code, in the form of procedures (often known as methods). A feature of objects is their procedures that can access and often modify the data fields of the object with which they are associated (objects have a notion of "this" or "self"). In OOP, computer programs are designed by making them out of objects that interact with one another. OOP languages are diverse, but the most popular ones are class-based, meaning that objects are instances of classes, which also determine their types. †

Objectives and Key Results

A framework for defining and tracking objectives and their outcomes. OKR comprise an objective—a clearly defined goal—and one or more key results—specific measures used to track the achievement of that goal. The goal of OKR is to define how to achieve objectives through concrete, specific, and measurable actions. Key results can be measured on a 0–100% scale or any numerical unit. The development of OKR is generally attributed to Andy Grove,

who introduced the approach to Intel and documented OKR in his 1983 book *High Output Management*. †

Observer

→ Navigator

Observer pattern

A software design pattern in which an object, called the subject, maintains a list of its dependents, called observers, and notifies them automatically of any state changes, usually by calling one of their methods. The observer pattern is mainly used to implement distributed event handling systems. †

OCP

→ Open-Closed Principle

OCSP

→ Online Certificate Status Protocol

OCSP stapling

A standard for checking the revocation status of X.509 digital certificates. OCSP stapling allows the presenter of a certificate to bear the resource cost involved in providing Online Certificate Status Protocol (OCSP) responses by appending (“stapling”) a time-stamped OCSP response signed by the CA to the initial TLS handshake, eliminating the need for clients to contact the CA, with the aim of improving both security and performance. †

Offline

Not being connected to the Internet.

Offline First

The idea of not assuming permanent, fast Internet connectivity, and developing sites and apps so as to also work with no or poor connectivity. i offlinefirst.org

OGP

→ Open Graph Protocol

OIDC

→ OpenID Connect

OKR

→ Objectives and Key Results

OLAP

→ Online Analytical Processing

OLTP

→ Online Transaction Processing

One-based indexing

The indexing of the first element of an array by subscript of 1. †

One-Time Password

A password that is valid for only one login session or transaction, on a computer system or other digital device. OTPs avoid a number of shortcomings that are associated with traditional (static) password-based authentication; a number of implementations also incorporate two-factor authentication by ensuring that the one-time password requires access to something a person has (such as a small keyring fob device with the OTP calculator built into it, or a smartphone with an OTP app) as well as something a person knows (such as a PIN). The most

important advantage that is addressed by OTPs is that, in contrast to static passwords, they are not vulnerable to replay attacks. †

Online Analytical Processing

An approach to answer multi-dimensional analytical (MDA) queries swiftly in computing. OLAP is part of the broader category of business intelligence, which also encompasses relational databases, report writing, and data mining. †

Online Certificate Status Protocol

An Internet protocol used for obtaining the revocation status of an X.509 digital certificate. OCSP is described in RFC 6960 and is on the Internet standards track. It was created as an alternative to certificate revocation lists (CRL). Some web browsers use OCSP to validate HTTPS certificates. †

Online Transaction Processing

The facilitating and managing of transaction-oriented applications by information systems. The term “transaction” can have two meanings, both of which might apply: In the realm of computers or database transactions it denotes an atomic change of state, whereas in the realm of business or finance, the term typically denotes an exchange of economic entities. OLTP may use transactions of the first type to record transactions of the second. †

OOCSS

→ Object-Oriented CSS

OOM

→ Out of memory

OOP

→ Object-Oriented Programming

OOPIF

→ Out-of-Process IFrame

Open Authorization

An open standard for access delegation, commonly used as a way for Internet users to grant websites or applications access to their information on other websites but without giving them the passwords. This mechanism is used by companies such as Amazon, Google, Facebook, Microsoft, and Twitter to permit the users to share information about their accounts with third-party services. OAuth is a service that is complementary to and distinct from OpenID; however, OAuth is directly related to OpenID Connect (OIDC), since OIDC is an authentication layer built on top of OAuth 2.0. Development of OAuth began in 2006. † [i oauth.net](http://i.oauth.net)

Open Graph

→ Open Graph Protocol

Open Graph Protocol

A microformat that enables developers to integrate their pages into Facebook’s Social Graph, a global mapping and tracking tool. The respective pages gain the functionality of other graph objects including profile links and stream updates for connected users. OGP was created in 2010 by Facebook. † [i ogp.me](http://i.ogp.me)

Open Source

Products that include permission to use the source code, design documents, or content of the product. Open Source most commonly refers to the open source model, in which software or

other products are released under a permissive open source license. Use of the term originated with software, but has expanded beyond the software sector to cover other open content and forms of open collaboration. † i opensource.org

Open Systems Interconnection model

→ OSI model

Open Web Application Security Project

An online community that produces freely-available articles, methodologies, documentation, tools, and technologies in the field of web application security. OWASP was founded in 2001.

† i owasp.org

Open-Closed Principle

The idea that “software entities (classes, modules, functions, etc.) should be open for extension, but closed for modification,” that is, that such an entity can allow its behavior to be extended without modifying its source code. †

OpenID

An open standard and decentralized authentication protocol. Promoted by the non-profit OpenID Foundation, OpenID allows users to be authenticated by cooperating sites (known as relying parties, or RP) using a third-party service, eliminating the need for webmasters to provide their own *ad hoc* login systems, and allowing users to log into multiple unrelated websites without having to have a separate identity and password for each. Users create accounts by selecting an OpenID identity provider and then use those accounts to sign onto any website that accepts OpenID authentication. † i openid.net

OpenID Connect

An authentication layer on top of the OAuth 2.0 authorization framework. OI DC allows computing clients to verify the identity of an end user based on the authentication performed by an authorization server, as well as to obtain the basic profile information about the end user in an interoperable and REST-like manner. † i openid.net/connect

OpenType

A format for scalable computer fonts. OpenType was built on its predecessor TrueType, retaining TrueType’s basic structure and adding many intricate data structures for prescribing typographic behavior. The specification was developed at Microsoft, with Adobe Systems contributing by the time of public announcement in 1996. †

Opera

A cross-platform web browser. Opera was first released in 1995. i opera.com

Opera Mini

A mobile web browser developed by Opera. It was primarily designed for the Java ME platform, as a low-end sibling for Opera Mobile. Opera Mini was previously developed for iOS, Windows 10 Mobile, Windows Phone 8.1, BlackBerry, Symbian, and Bada. As of 2022, the Android build is the only version still under active development. Opera Mini requests web pages through Opera’s compression servers, which process and compress requested web pages before sending them to the mobile phone. † i opera.com/mobile/mini

Operand

In mathematics, the object of a mathematical operation, i.e., the object or quantity that is operated on. In “3 + 6”, “3” and “6” are operands, while “+” is an (addition) operator. †

Operating System

System software that manages computer hardware and software resources and that provides services for computer programs. For hardware functions such as input and output and memory allocation, the operating system acts as an intermediary between programs and the computer hardware, although application code is usually executed directly by the hardware and frequently makes system calls to an OS function, or is interrupted by it. Operating systems are found on many devices that contain a computer—from cellular phones and video game consoles to web servers and supercomputers. †

Operator

In mathematics, a mapping that acts on elements of a space to produce elements of another space (possibly the same space, sometimes required to be the same space). An operator is also used for denoting the symbol of a mathematical operation, which is related with the meaning of “operator” in computer programming. †

In programming, constructs which behave generally like functions, but which differ syntactically or semantically from usual functions. Common simple examples include arithmetic (addition with +), comparison (with >), and logical operations (such as AND or &&). More involved examples include assignment (usually = or :=), field access in a record or object (usually .), and the scope resolution operator (often ::). Languages usually define a set of built-in operators, and in some cases allow users to add new meanings to existing operators or even define completely new operators. †

Optimization

The selection of a best element (with regard to some criterion) from some set of available alternatives. Optimization problems of sorts arise in all quantitative disciplines from computer science and engineering to operations research and economics, and the development of solution methods has been of interest in mathematics for centuries. In the simplest case, an optimization problem consists of maximizing or minimizing a real function by systematically choosing input values from within an allowed set and computing the value of the function. Casually, optimization refers to improving a product, service, or software. †

Optional markup

Markup (like HTML code and particular tags, attributes, and quotes) that is not necessary for a document to be functional and valid.

Orca

An extensible screen reader from the GNOME project for individuals who are blind or visually impaired. Using various combinations of speech synthesis and braille, Orca helps provide access to applications and toolkits that support the AT-SPI. The name Orca, which is the name of a killer whale, is a nod to the long-standing tradition of naming screen readers after aquatic creatures. † [i wiki.gnome.org/Projects/Orca](http://wiki.gnome.org/Projects/Orca)

Origin

A concept defined by the scheme (protocol), host (domain), and port of the URL used to access it. Two objects have the same origin only when the scheme, host, and port all match. Some operations are restricted to same-origin content, and this restriction can be lifted using cross-origin resource sharing (CORS). ‡

Origin trials

An approach to enable manageable experimentation with web platform features involving explicit developer opt-in, feature trial validation, and feedback collection. [i is.gd/6gJDY4](https://is.gd/6gJDY4)

Orphan

A paragraph-opening line that appears by itself at the bottom of a page or column, separated from the rest of the text. †

Orthogonality

A software design principle meaning that change of one piece of software does not affect other pieces, or that operations do not have side effects. Orthogonality in a programming language means that a relatively small set of primitive constructs can be combined in a relatively small number of ways to build the control and data structures of the language. It is associated with simplicity; the more orthogonal the design, the fewer exceptions. This makes it easier to learn, read and write programs in a programming language. The meaning of an orthogonal feature is independent of context; the key parameters are symmetry and consistency (for example, a pointer is an orthogonal concept). †

OS → Operating System

OSI model

A conceptual model that characterizes and standardizes the communication functions of a telecommunication or computing system without regard to its underlying internal structure and technology. Its goal is the interoperability of diverse communication systems with standard communication protocols. The model partitions a communication system into abstraction layers. The original version of the model had seven layers, namely the physical, data link, network, transport, session, presentation, and application layers. The OSI model was first defined in 1978. †

OTA

→ Over the Air

OTF

→ OpenType

OTP

→ One-Time Password

Out of memory

An often undesired state of computer operation where no additional memory can be allocated for use by programs or the operating system. Such a system will be unable to load any additional programs, and since many programs may load additional data into memory during execution, these will cease to function correctly. †

Out-of-Process Iframe

An iframe that's being handled in a different rendering process for security reasons.

Outline

A CSS feature managed with special `outline` properties that allows to draw lines around elements. A CSS outline is different from a border in that it does not take up space, and that it may be non-rectangular.

Over the Air

Various methods of distributing new software, configuration settings, and even encryption

keys to devices like mobile phones, set-top boxes, or secure voice communication equipment (encrypted 2-way radios). One important feature of OTA is that one central location can send an update to all the users and that the update applies immediately to everyone on the channel.

†

OWASP

→ Open Web Application Security Project



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

P

PaaS

→ Platform as a Service

package.json

A file containing dependencies, scripts, and metadata for npm (Node Package Manager) or Yarn packages.

package-lock.json

A file that describes the dependencies and the exact tree that were generated for an npm package so that an identical tree can be recreated, independent of interim dependency updates. package-lock.json is intended to be committed to version control.

Packaged Offline/Online Webpage

The use of the PNG image format to store a ZIP archive of a website in a PNG image's metadata. [i hi.pow.tools](#)

Packed

A property of an array that consists only of elements (no holes), and that can be optimized accordingly.

Packet

A formatted unit of data carried by a packet-switched network. A packet consists of control information and user data, which is also known as the payload. Control information provides data for delivering the payload, for example, source and destination network addresses, error detection codes, and sequencing information. Typically, control information is found in packet headers and trailers. †

Padding

Per the CSS box model, the padding area of a box, that is, of an element of a document. The padding area lies between the content and border areas of a box.

Page

→ Web page

Page impression

→ Page view

Page parking

The quick opening of several web pages to revisit the respective pages and files at a later time. According to UX research firm Nielsen Norman Group, page parking is particularly popular among young adult users, or so-called millennials.

Page prediction

A browser feature or script which, when enabled, tells the browser to download resources the user is likely to visit before any user requests for the content are made. Page prediction improves performance by enabling almost instant loading of predicted content. However, page prediction may also download content a user does not request. ‡

Page Quality

Custom and proprietary quality criteria for web pages (Google) and Facebook Pages (Facebook).

Page view

A request to load a single HTML file (web page) of an Internet site. On the World Wide Web, a page request would result from a web surfer clicking on a link on another page pointing to the page in question. †

PageRank

An algorithm used by Google Search to rank web pages in their search engine results. PageRank was named after Larry Page, one of the founders of Google. PageRank is a way of measuring the importance of website pages. According to Google: “PageRank works by counting the number and quality of links to a page to determine a rough estimate of how important the website is. The underlying assumption is that more important websites are likely to receive more links from other websites.” Currently, PageRank is not the only algorithm used by Google to order search results, but it is the first algorithm that was used by the company, and the best known.

†

PageSpeed

A family of tools by Google, designed to help a website’s performance optimization. PageSpeed was introduced in 2010. There are four main components of PageSpeed family tools: PageSpeed Module, also known as `mod_pagespeed`, PageSpeed Insights, PageSpeed Service, and the PageSpeed Chrome DevTools extension. All of these components are built to identify faults in a website’s compliance with Google’s web performance best practices, as well as to automate the optimization process. † [i developers.google.com/speed](https://developers.google.com/speed)

Paint

The web page rendering phase during which the final render tree is used to render the respective pixels to the screen.

Pair programming

An agile software development technique in which two programmers work together at one workstation. One, the driver, writes code while the other, the navigator or observer, reviews each line of code as it is typed in. The two programmers switch roles frequently. While reviewing, the navigator also considers the “strategic” direction of the work, coming up with ideas for improvements and likely future problems to address. This is intended to free the driver to focus all of their attention on the “tactical” aspects of completing the current task, using the navigator as a safety net and guide. †

Palpable content

Content that makes an element non-empty by providing either some descendant non-empty text, or else something users can hear (`audio` elements) or view (`video`, `img`, or `canvas` elements), or otherwise interact with (for example, interactive form controls). That elements whose content model allows flow content or phrasing content should have at least one node in its contents that is palpable (and that does not have the `hidden` attribute specified) is not a hard requirement. §

Paper prototyping

A method of the user-centered design process for designing and testing user interfaces. Paper prototyping is throwaway prototyping that involves creating rough, even hand-sketched,

drawings of an interface to use as prototypes, or models, of a design. While paper prototyping seems simple, this usability testing method can provide useful feedback to aid the design of easier to use products. †

Paradigm

A distinct set of concepts or thought patterns, including theories, research methods, postulates, and standards for what constitutes legitimate contributions to a field. According to Thomas Kuhn (1962), scientific paradigms are “universally recognized scientific achievements that, for a time, provide model problems and solutions for a community of practitioners.” †

Parallax scrolling

A technique in computer graphics where background images move past the camera more slowly than foreground images, creating an illusion of depth in a 2D scene and adding to the sense of immersion in the virtual experience. The technique grew out of the multiplane camera technique used in traditional animation since the 1930s. †

Parallel browsing

The keeping open and handling of several web pages in different tabs and windows.

Parameter

A special kind of variable used in a subroutine to refer to one of the pieces of data provided as input to the subroutine. These pieces of data are the values of the arguments (often called actual arguments or actual parameters) with which the subroutine is going to be called or invoked. †

Paraphrase testing

A method to test the effectiveness of content in which test participants paraphrase and explain sections that they were asked to read. Notes on the responses can be analyzed and used for follow-up questions.

Parcel

A web application bundler. Parcel was released in 2017. [i parceljs.org](http://parceljs.org)

Pareto Principle

The observation that for many events, roughly 80% of the effects come from 20% of the causes. It is named after Italian economist Vilfredo Pareto, who noted the 80/20 connection in 1896, as published in his first work, *Cours d'économie politique*. In it, Pareto showed that approximately 80% of the land in Italy was owned by 20% of the population. It is a similar axiom of business management that “80% of sales come from 20% of clients.” †

Parkinson's Law

The idea that work expands so as to fill the time available for its completion. Parkinson's Law is sometimes applied to the growth of bureaucracy in an organization. It was stated in 1955 by Cyril Northcote Parkinson in an essay published in *The Economist*. A popular corollary is that “Work contracts to fit in the time we give it.” †

Parsed Character Data

A data definition that originated in Standard Generalized Markup Language (SGML), and that is also used in Extensible Markup Language (XML) document type definitions to designate mixed content XML elements. †

Parser

A software component that takes input data (frequently text) and builds a data structure—often some kind of parse tree, abstract syntax tree, or other hierarchical structure, giving a

structural representation of the input while checking for correct syntax. The parsing may be preceded or followed by other steps, or these may be combined into a single step. The parser is often preceded by a separate lexical analyzer, which creates tokens from the sequence of input characters; alternatively, these can be combined in scannerless parsing. Parsers may be programmed by hand or may be automatically or semi-automatically generated by a parser generator. Parsing is complementary to templating, which produces formatted output. †

Parsing

The process of analyzing a string of symbols, either in natural language, computer languages or data structures, conforming to the rules of a formal grammar. The term “parsing” comes from Latin *pars* (*orationis*), meaning “part (of speech).” The term has slightly different meanings in different branches of linguistics and computer science. Within computational linguistics “parsing” is used to refer to the formal analysis by a computer of a sentence or other string of words into its constituents, resulting in a parse tree showing their syntactic relation to each other, which may also contain semantic and other information. †

Pascal case

Camel case with an initial uppercase letter (“TheQuickBrownFox”).

Patch

A set of changes to a computer program or its supporting data designed to update, fix, or improve it. This includes fixing security vulnerabilities and other bugs, like around functionality, performance, or usability. Patches are also called bugfixes (or bug fixes). †

→ Change list

Path

The general form of the name of a file or directory, specifying a unique location in a file system. A path points to a file system location by following the directory tree hierarchy expressed in a string of characters in which path components, separated by a delimiting character, represent each directory. The delimiting character is most commonly a slash (“/”), backslash character (“\”), or colon (“:”), though some operating systems may use a different delimiter. †

PATH

An environment variable on Unix-like operating systems, OS/2, DOS, and Microsoft Windows, specifying a set of directories where executable programs are located. In general, each executing process or user session has its own PATH setting. †

Pattern

A design element or component, and a re-usable form of a solution to a design problem. †

Pattern library

A structured collection of design particles, elements, and components. May be part of a design system.

Pave the cowpaths

The idea to build on and formalize existing practices. “Pave the cowpaths” was one of the principles applied to extend the HTML standard.

Pay-per-click

An Internet advertising model used to drive traffic to websites, in which an advertiser pays a publisher (typically a search engine, website owner, or a network of websites) when the ad is

clicked. Pay-per-click is commonly associated with first-tier search engines (such as Google Ads and Bing Ads). With search engines, advertisers usually bid on keyword phrases relevant to their target market. In contrast, content sites commonly charge a fixed price per click rather than use a bidding system. PPC display advertisements, also known as banner ads, are shown on websites with related content that have agreed to show ads and are typically not pay-per-click advertising. Social networks such as Facebook, Twitter, LinkedIn, and Pinterest have also adopted pay-per-click as one of their advertising models. †

Payload

The part of transmitted data that is the actual intended message. Headers and metadata are sent only to enable payload delivery. The term is borrowed from transportation, where payload refers to the part of the load that pays for transportation. †

Paywall

A method of restricting access to content via a purchase or paid subscription. Beginning in the mid-2010s, newspapers started implementing paywalls on their websites as a way to increase revenue after years of decline in paid print readership and advertising revenue, partly due to the use of ad blockers. Paywalls have also been used as a way of increasing the number of print subscribers. †

PBI → Product Backlog Item

PCDATA

→ Parsed Character Data

PDF

→ Portable Document Format

Peer review

→ Code review

Pen test

→ Penetration testing

Penetration testing

An authorized simulated cyber attack on a computer system, performed to evaluate the security of the system. A penetration test is performed to identify both weaknesses (also referred to as vulnerabilities), including the potential for unauthorized parties to gain access to the system's features and data, as well as strengths, enabling a full risk assessment to be completed. The process typically identifies the target systems and a particular goal, then reviews available information and undertakes various means to attain that goal. †

Perceivable, Operable, Understandable, and Robust

The four major principles of WCAG 2.0. Information and user interface components must be presentable to users in ways they can perceive; user interface components and navigation must be operable; information and the operation of user interface must be understandable; and content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies. †

Perceived performance

The perception of how quickly a software feature appears to perform a task. The amount of time an application takes to start up, or a file to download, is not made faster by showing a startup screen or a file progress dialog box, however, such a feature can make the interface appear

faster to the user as well as providing a visual cue to let them know the system is handling their request. †

Percent encoding

→ URL encoding

Performance

The speed in which web pages are downloaded and displayed on the user's web browser. Faster website download speeds have been shown to increase visitor retention and loyalty and user satisfaction, especially for users with slow Internet connections and on mobile devices. Web performance also leads to less data traveling across the Web, which in turn lowers a website's power consumption and environmental impact. Some aspects which can affect the speed of page load include browser or server caching as well as image optimization. The performance of a web page can be improved through techniques such as multi-layered cache, lightweight design of presentation-layer components, and asynchronous communication with server-side components. †

Performance budget

A metrics-based set of performance-related limits for a site or app. The limits are to be controlled and not to be crossed (budget). Limits can include bundle sizes, document sizes, image weights, specific time thresholds, and also performance indices like Speed Index.

Performance indicator

→ Key Performance Indicator

Perl

A family of two high-level, general-purpose, interpreted, dynamic programming languages. "Perl" refers to Perl 5, but from 2000 to 2019 it also referred to its redesigned "sister language," Perl 6, before the latter's name was officially changed to Raku in 2019. Though "Perl" is not officially an acronym, there are various backronyms in use, including "Practical Extraction and Reporting Language." Perl was originally developed in 1987 by Larry Wall as a general-purpose Unix scripting language to make report processing easier. Since then, it has undergone many changes and revisions. † [i perl.org](http://i.perl.org)

Permalink

A URL that is intended to remain unchanged for many years into the future, yielding a hyperlink that is less susceptible to link rot. Permalinks are often rendered simply, that is, as friendly URLs, so as to be easy for people to type and remember. Most modern blogging and content syndication software systems support such links. Sometimes URL shortening is used to create them. A permalink is a type of persistent identifier. More often, though, persistent identifiers are called permalinks that are generated by a content management system for pages served by that system. This usage is especially common in the blogosphere. Such links are not maintained by an outside authority, and their persistence is dependent on the durability of the content management system itself. †

Persona

A fictional character created to represent a user type that might use a site, brand, or product in a similar way. Marketers may use personas together with market segmentation, where the qualitative personas are constructed to be representative of specific segments. The term "persona" is used widely in online and technology applications as well as in advertising, where

other terms such as “pen portraits” may also be used. Personas are useful in considering the goals, desires, and limitations of brand buyers and users in order to help to guide decisions about a product, service, or interaction space such as features, interactions, and visual design of a website. Personas may also be used as part of a user-centered design process for designing software. †

Personal data

Any information relating to an identifiable person. The concept of personal data has become prevalent as information technology and the Internet have made it easier to collect personally identifiable information (PII) leading to a profitable market in collecting and reselling personal data. PII can also be exploited by criminals to stalk or steal the identity of a person, or to aid in the planning of criminal acts. As a response to these threats, many website privacy policies specifically address the gathering of personal data, and lawmakers such as the European Parliament have enacted a series of legislation such as the General Data Protection Regulation (GDPR) to limit the distribution and accessibility of personal data. †

Personal Home Page

→ PHP

Personally identifiable information

→ Personal data

PFS Perfect → forward secrecy

PhantomJS

A discontinued headless browser used for automating web page interaction. PhantomJS provides a JavaScript API enabling automated navigation, screenshots, user behavior, and assertions making it a common tool used to run browser-based unit tests in a headless system like a continuous integration environment. PhantomJS is based on WebKit. It was first released in 2011. † i phantomjs.org

Phishing

The fraudulent attempt to obtain sensitive information such as usernames, passwords, and credit card details by disguising oneself as a trustworthy entity in an electronic communication. Typically carried out by email spoofing or instant messaging, phishing often directs users to enter personal information at a fake website which matches the look and feel of the legitimate site. Phishing is an example of social engineering techniques being used to deceive users. †

Phoenix

→ Firefox

Photoshop

A raster graphics editor developed and published by Adobe for Windows and macOS. Photoshop was originally created in 1987 by Thomas and John Knoll. Since then, the software has become the industry standard not only in raster graphics editing, but in digital art as a whole. The software’s name has thus become a generic trademark, leading to its usage as a verb (e.g., “to photoshop”) although Adobe discourages such use. † i adobe.com/products/photoshop

PHP

→ Hypertext Preprocessor

PhpStorm

A commercial, cross-platform IDE for PHP. PhpStorm provides an editor for PHP, HTML, CSS,

and JavaScript with on-the-fly code analysis, error prevention, and automated refactorings for PHP and JavaScript code. PhpStorm was first released in 2009. † i jetbrains.com/phpstorm

Phrasing content

The text of an HTML document, as well as elements that mark up that text at the intraparagraph level. Runs of phrasing content form paragraphs. §

PII → Personally identifiable information

Pinball pattern

A pattern of user behavior in which the gaze of a user, as determined by eye tracking, “bounces around” a page, resembling how a ball moves within a pinball machine.

Ping

A computer network administration software utility used to test the reachability of a host on an Internet Protocol (IP) network. It is available for virtually all operating systems that have networking capability, including most embedded network administration software. Ping measures the round-trip time for messages sent from the originating host to a destination computer that are echoed back to the source. †

Pinging

A colloquial expression for contacting or notifying another person.

pip A package management system used to install and manage software packages written in Python. † i pypi.org/project/pip

Pixel

A physical point in a raster image, or the smallest addressable element in an all-points-addressable display device; so it is the smallest controllable element of a picture represented on the screen. Each pixel is a sample of an original image; more samples typically provide more accurate representations of the original. The intensity of each pixel is variable. In color imaging systems, a color is typically represented by three or four component intensities such as red, green, and blue, or cyan, magenta, yellow, and black. †

Pixel tag

→ Tracking pixel

Pixel-perfect

The development goal of building exactly to design specs (that is, the resulting site or app looks exactly as intended, down to each pixel), as well as to have a site or app look exactly the same on all browsers and devices. In modern web development with its focus on responsive design and an indeterminable combination of browsers and devices, pixel-perfection is considered an unrealistic and problematic practice.

Placeholder

→ Free variable

→ Placeholder text

Placeholder text

Text that shares some characteristics of a real written text, but is random or otherwise generated. Placeholder text may be used to display a sample of fonts, generate text for testing, or to spoof an email spam filter. The process of using filler text is sometimes called greeking, although the text itself may be nonsense, or largely Latin, as with “Lorem ipsum.” †

Plain-text

A loose term for data (e.g., file contents) that represent only characters of readable material but no graphical representation or other objects and media. Plain-text may also include a limited number of characters that control simple arrangement of text, such as spaces, line breaks, or tabulation characters. It is different from formatted text, where style information is included.

†

Plane

In the Unicode Standard, a continuous group of 65,536 (2^{16}) code points. There are 17 planes, identified by the numbers 0 to 16, which corresponds with the possible values $00-10_{16}$ of the first two positions in six-position hexadecimal format (U+hhhhhh). Plane 0 is the Basic Multilingual Plane (BMP), which contains the most commonly used characters. The higher planes 1 through 16 are called supplementary planes. The last code point in Unicode is the last code point in plane 16, U+10FFFF. As of Unicode version 12.1, six of the planes have assigned code points (characters), and four are named. The limit of 17 planes is due to UTF-16, which can encode 2^{20} code points (16 planes) as pairs of words, plus the BMP as a single word. UTF-8 was designed with a much larger limit of 2^{31} (2,147,483,648) code points (32,768 planes), and can encode 2^{21} (2,097,152) code points (32 planes) even under the current limit of 4 bytes. The 17 planes can accommodate 1,114,112 code points. †

Platform as a Service

A category of cloud computing services that provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the infrastructure typically associated with developing and launching an app. †

Platform modernization

→ Software modernization

Playback attack

→ Replay attack

Plugin

A software component that adds a specific feature to an existing computer program. When a program supports plugins, it enables customization. †

PNG

→ Portable Network Graphics

Pointer

A programming language object that stores a memory address. This can be that of another value located in computer memory, or in some cases, that of memory mapped computer hardware. A pointer references a location in memory, and obtaining the value stored at that location is known as dereferencing the pointer. †

Pointing device

An input interface (specifically a human interface device) that allows a user to input spatial (i.e., continuous and multi-dimensional) data to a computer. CAD systems and graphical user interfaces (GUIs) allow the user to control and provide data to the computer using physical gestures by moving a hand-held mouse or similar device across the surface of the physical desktop and activating switches on the mouse. While the most common pointing device by far is the mouse, many more have been developed. †

Polyfill

Code that implements a feature on web browsers that do not natively support the feature. Most often, a polyfill refers to a JavaScript library that implements an HTML web standard, either an established one (supported by some browsers) on older browsers, or a proposed standard (not supported by any browsers) on existing browsers. Formally, a polyfill is a shim for a browser API. Polyfills allow web developers to use an API regardless of whether it is supported by a browser, and usually with minimal overhead. †

Polymer Project

A JavaScript library for building web applications using web components. Development of the library started in 2013, and it was released in 2015. Polymer was developed by Google. † [i polymer-project.org](http://polymer-project.org)

POM

→ Project Object Model

POP

→ Post Office Protocol

Pop-under

A variation on the pop-up window. A pop-under opens a new browser window under the active window. Pop-unders do not interrupt the user immediately, but appear when the user closes the covering window, making it more difficult to determine which website created them. Pop-unders can be considered a dark pattern. †

Pop-up

A graphical user interface (GUI) display area, usually a small window, that suddenly appears (“pops up”) in the foreground of the visual interface. Because of heavy abuse pop-ups are generally considered a dark pattern and often blocked by default. †

Port

A communication endpoint. At the software level, within an operating system, a port is a logical construct that identifies a specific process or a type of network service. Ports are identified for each protocol and address combination by 16-bit unsigned numbers, commonly known as the port number. The most common protocols that use port numbers are the Transmission Control Protocol (TCP) and the User Datagram Protocol (UDP). A port number is always associated with an IP address of a host and the protocol type of the communication. It completes the destination or origination network address of a message. Specific port numbers are commonly reserved to identify specific services. †

Port number

→ 0–9 for various port numbers

→ Port

Portable code

→ Bytecode

Portable Document Format

A file format developed by Adobe in the 1990s to present documents, including text formatting and images, in a manner independent of application software, hardware, and operating systems. Based on the PostScript language, each PDF file encapsulates a complete description of a

fixed-layout flat document, including the text, fonts, vector graphics, raster images, and other information needed to display it. PDF was standardized as ISO 32000 in 2008. †

Portable Network Graphics

A raster graphic file format that supports lossless data compression. PNG was developed as an improved, non-patented replacement for Graphics Interchange Format (GIF). PNG files use the file extension `png` and are assigned the MIME media type `image/png`. PNG was published as informational RFC 2083 in 1997, and as an ISO/IEC standard in 2004. †

Portal

A specially designed website that brings together information from diverse sources, like emails, online forums, and search engines, in a uniform way. Usually each information source gets its dedicated area on the page for displaying information (a portlet); often, the user can configure which ones to display. Variants of portals include mashups and intranet “dashboards” for executives and managers. †

A mechanism that allows for the rendering and quick navigation of embedded content. i.wicg.github.io/portals

Post mortem

A process, usually performed at the conclusion of a project, to determine and analyze elements of the project that were successful or unsuccessful. The Project Management Body of Knowledge (PMBOK) refers to the process as “lessons learned.” Project post mortems are intended to inform process improvements which mitigate future risks and to promote iterative best practices. †

Post Office Protocol

An application-layer Internet standard protocol used by email clients to retrieve email from a mail server. POP was first specified in 1984. †

PostCSS

A software development tool that uses JavaScript-based plugins to automate routine CSS operations. PostCSS was first released in 2013. † i.postcss.org

Postel’s Law

“Be conservative in what you send, be liberal in what you accept.” Also known as the Robustness Principle, it is named after Jon Postel, who wrote in an early specification of TCP that “TCP implementations should follow a general principle of robustness: Be conservative in what you do, be liberal in what you accept from others.” †

POUR

→ Perceivable, Operable, Understandable, and Robust

POW

→ Packaged Offline/Online Webpage

PowerShell

A task automation and configuration management framework from Microsoft, consisting of a command-line shell and associated scripting language. Initially a Windows component only, known as Windows PowerShell, it was made open source and cross-platform in 2016 with the introduction of PowerShell Core. The former is built on the .NET Framework, the latter on .NET Core. PowerShell was first released in 2006. † i.microsoft.com/powershell

PPC

→ Pay-per-click

PQ → Page Quality

PR → Pull request

Pre-production environment

→ Staging environment

Preact

A JavaScript library described as a lightweight alternative to React, using the same ES6 API. [i preactjs.com](https://preactjs.com)

Predication

An architectural feature that provides an alternative to conditional transfer of control, implemented by machine instructions such as conditional branch, conditional call, conditional return, and branch tables. Predication works by executing instructions from both paths of the branch and only permitting those instructions from the taken path to modify architectural state. The instructions from the taken path are permitted to modify architectural state because they have been associated (predicated) with a predicate, a Boolean value used by the instruction to control whether the instruction is allowed to modify the architectural state or not. †

Prefetching

A technique for speeding up fetch operations by beginning a fetch operation whose result is expected to be needed soon. Usually this is before it is known to be needed, so there is a risk of wasting time by prefetching data that will not be used. †

Preferred style sheet

The preferred style sheet when no alternate style sheet is being selected. A style sheet can be marked as preferred by setting the `link` element's `rel` attribute to "stylesheet" and naming the style sheet with the `title` attribute, as well as by using a `meta` element or setting a particular HTTP header.

Premature optimization

A situation where a programmer lets performance considerations affect the design of a piece of code. This can result in a design that is not as clean as it could have been or code that is incorrect, because the code is complicated by the optimization and the programmer is distracted by optimizing. †

Prerendering

The prefetching and then rendering of content in the background by a browser, as if the content had been rendered into an invisible separate tab. When the user navigates to the prerendered content, the current content is replaced by the prerendered content instantly. ‡

Presentation

In web development, the code that deals with how content is being presented. This is usually achieved through CSS (Cascading Style Sheets).

Presto

The browser engine of the Opera web browser from the release of Opera 7 in 2003 until the release of Opera 15 in 2013, at which time Opera switched to using the Blink engine that was originally created for Chromium. Presto was also used to power the Opera Mini and Opera Mobile browsers. †

Primary key

In the relational model of data, a specific choice of a minimal set of attributes (columns) that uniquely specify a tuple (row) in a relation (table). Informally, a primary key is “which attributes identify a record,” and in simple cases constitute a single attribute, that is, a unique ID. More formally, a primary key is a choice of candidate key (a minimal superkey); any other candidate key is an alternate key. †

Primitive

A data type that is either a basic type (a data type provided by a programming language as a basic building block) or a built-in type (a data type for which the programming language provides built-in support). In most programming languages, all basic data types are built-in. In addition, many languages also provide a set of composite data types. †

Principal box

A box that contains descendant boxes and generated content, and that is also the box involved in any applicable positioning scheme.

Print style sheet

A style sheet that governs print styling, using the `print` media type.

Privacy

The ability of an individual or group to seclude themselves, or information about themselves, and thereby express themselves selectively. The boundaries and content of what is considered private differ among cultures and individuals. When something is private to a person, it usually means that something is inherently special or sensitive to them. The domain of privacy partially overlaps with security, which can include the concepts of appropriate use, as well as protection of information. Privacy may also take the form of bodily integrity. The right not to be subjected to unsanctioned invasions of privacy by the government, corporations or individuals is part of many countries' privacy laws, and in some cases, constitutions. †

Product Backlog

In Scrum, a prioritized list of work needed to be done to create and maintain a product. A Product Backlog is managed by the Product Owner.

Product Backlog Item

An element from a Product Backlog. PBIs can include research tasks, specifications, requirements, use cases, user stories, epics, bugs, and refactoring tasks.

Product Owner

A Scrum role that is responsible for maximizing the value of a product as well as for managing requirements and expectations for the respective product.

Production

→ Production environment

Production environment

A deployment environment that is “live,” that is, that users directly interact with. When deploying a new release to production, rather than immediately deploying to all instances or users, it may be deployed to a single instance or fraction of users first, and then either deployed to all or gradually deployed in phases, in order to catch any last-minute problems. This is similar to staging, except done in production, and is referred to as a canary release, by analogy with coal mining. †

Programming

The process of designing and building an executable computer program to accomplish a specific computing result or to perform a specific task. Programming involves tasks such as: analysis, generating algorithms, profiling algorithm accuracy and resource consumption, and the implementation of algorithms in a chosen programming language (commonly referred to as coding). The source code of a program is written in one or more languages that are intelligible to programmers, rather than machine code, which is directly executed by the central processing unit. The purpose of programming is to find a sequence of instructions that will automate the performance of a task (which can be as complex as an operating system) on a computer, often for solving a given problem. †

Programming language

A formal language which comprises a set of instructions that produce various kinds of output. Programming languages are used in computer programming to implement algorithms. Most programming languages consist of instructions for computers. There are programmable machines that use a set of specific instructions, rather than general programming languages. The description of a programming language is usually split into the two components of syntax (form) and semantics (meaning). Some languages are defined by a specification document (for example, the C programming language is specified by an ISO standard) while other languages (such as Perl) have a dominant implementation that is treated as a reference. †

Progressive Enhancement

A strategy for web design that emphasizes core web page content first. This strategy then progressively adds more nuanced and technically rigorous layers of presentation and features on top of the content as the end user's browser or Internet connection permit. The proposed benefits of this strategy are that it allows everyone to access the basic content and functionality of a web page, using any browser or Internet connection, while also providing an enhanced version of the page to those with more advanced browser software or greater bandwidth. †

Progressive font enrichment

The downloading of only the required part of a font, and the patching of the respective download with additional glyphs as needed on additional page views. The concept for progressive font enrichment has been proven, but it is not widely usable yet. [i is.gd/ZMRgCR](https://is.gd/ZMRgCR)

Progressive rendering

An approach to improve the perceived performance of a website or app.

Progressive Web App

A type of application software delivered through the Web, built using common web technologies including HTML, CSS, and JavaScript. A PWA is intended to work on any platform that uses a standards-compliant browser. Functionality includes working offline, push notifications, and device hardware access, enabling creating user experiences similar to native applications on desktop and mobile devices. While web applications have been available for mobile devices from the start, they have generally been slower, have had fewer features, and been less used than native apps. But with the ability to work offline, previously only available to native apps, PWAs running on mobile devices can perform much faster and provide more features, closing the gap with native apps, in addition to being portable across both desktop and mobile platforms. PWAs do not require separate bundling or distribution. Publication of a progressive

web app is as it would be for any other web page. †

Project Object Model

A system to provide the configuration for a single project, as with a pom.xml file used for Apache Maven. †

Promise

An object that is returned by a function that has not yet completed its work. The promise literally represents a promise made by the function that it will eventually return a result through the `Promise` object. When the called function finishes its work asynchronously, a function on the promise object called a resolution (or fulfillment, or completion) handler is called to let the original caller know that the task is complete. ‡

Prop

An argument passed into a component.

→ Property

Property

In CSS, an identifier for a CSS feature. A property has a value, and together property and value make a declaration that in turn resides in a rule. [i w3.org/Style/CSS/all-properties](http://w3.org/Style/CSS/all-properties)

In programming, a special sort of class member, intermediate in functionality between a field (or data member) and a method. The syntax for reading and writing of properties is like for fields, but property reads and writes are (usually) translated to “getter” and “setter” method calls. The field-like syntax is easier to read and write than lots of method calls, yet the interposition of method calls “under the hood” allows for data validation, active updating (e.g., of GUI elements), or implementation of what may be called read-only fields. †

Protocol

A system of rules that allow two or more entities of a communications system to transmit information via any kind of variation of a physical quantity. The protocol defines the rules, syntax, semantics, and synchronization of communication and possible error recovery methods. Protocols may be implemented by hardware, software, or a combination of both. †

Prototype

In software development, a private property of an object which holds a link to another object. That prototype object has a prototype of its own, and so on until an object is reached with `null` as its prototype. By definition, `null` has no prototype, and acts as the final link in this prototype chain. ‡

In web development and design, a more or less elaborate proof of concept or preview for a website or app.

Prototyping

The activity of creating prototypes of software applications, i.e., incomplete versions of the software program being developed. Prototyping is an activity that can occur in software development and is comparable to prototyping as known from other fields, such as mechanical engineering or manufacturing. A prototype typically simulates only a few aspects of, and may be completely different from, the final product. Prototyping has several benefits: Software designers and implementers can get valuable feedback from users early in the project, clients and contractors can compare if the software matches the specification according to which the

software is built, and software engineers get insight into the accuracy of initial project estimates and whether the deadlines and milestones proposed can be successfully met. †

Proxy

→ Proxy server

Proxy server

A server application or appliance that acts as an intermediary for requests from clients seeking resources from servers that provide those resources. A proxy server thus functions on behalf of the client when requesting service, potentially masking the true origin of the request to the resource server. A proxy can simplify or control the complexity of a request, or provide additional benefits such as load balancing, privacy, or security. †

PRPL

A web performance development pattern based on the sequence “Push” (important resources), “Render” (as soon as possible), “Pre-cache” (assets), and “Lazy-load.”

Pseudo-class

One of a range of predefined CSS selectors that targets elements depending on their state rather than on information from the document tree. For example, the selector `a:visited` applies styles only to links that the user has already followed. ‡

Pseudo-code

Code-like syntax that is used to indicate to humans how some code syntax works, or to illustrate the design of an item of code architecture. Pseudo-code does not work when tried to run as code. ‡

Pseudo-element

One of a range of predefined CSS selectors that applies styles to parts of a document content in scenarios where there is not a specific HTML element to select, but for which CSS provides an abstraction. For example, rather than putting the first letter of each paragraph in its own element, one can style them with `p::first-letter`. ‡

PTR

A pointer resource record in the Domain Name System (DNS). †

Pull request

→ Merge request

Punycode

A representation of Unicode with the limited ASCII character subset used for Internet hostnames. Using Punycode, hostnames containing Unicode characters are transcoded to a subset of ASCII consisting of letters, digits, and hyphens, which is called the Letter-Digit-Hyphen (LDH) subset. For example, “München” (Munich) is encoded as `Mnchen-3ya`. †

Puppet

A software configuration management tool which includes its own declarative language to describe system configurations. Puppet is model-driven and requires limited programming knowledge to use. The tool was released in 2005, like the respective company. † i puppet.com

Puppeteer

A Node.js library that provides an API to control Chrome and Chromium over the Chrome DevTools Protocol. Puppeteer offers both headless and non-headless operation. i pptr.dev

Push notification

Small messages that can reach audiences anywhere and anytime. While pop-ups appear only when audiences are on the site they belong to, push messages are independent of sites. They are associated with web browsers and apps. †

Push technology

A style of Internet-based communication where the request for a given transaction is initiated by the publisher or central server. It is contrasted with pull/get, where the request for the transmission of information is initiated by the receiver or client. Push services are often based on information preferences expressed in advance. †

PV → Page view

PWA

→ Progressive Web App

Python

An interpreted, high-level, general-purpose programming language. Python's design philosophy emphasizes code readability with its notable use of significant whitespace. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects. Python is dynamically typed and garbage-collected. It supports multiple programming paradigms, including procedural, object-oriented, and functional programming. Python is often described as a “batteries included” language due to its comprehensive standard library. It was created in 1991 by Guido van Rossum. † [i python.org](https://python.org)



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

Q

QA → Quality Assistance

→ Quality Assurance

QC → Quality Control

qooxdoo

An AJAX web application framework. qooxdoo provides support for professional JavaScript development with a graphical user interface (GUI) toolkit and high-level client-server communication. It was first released in 2005. † [i qooxdoo.org](http://qooxdoo.org)

QPS

→ Queries per second

Quality

The non-inferiority or superiority of something, and also its being suitable for the intended purpose (fitness for purpose) while satisfying customer expectations. Quality is a perceptual, conditional, and somewhat subjective attribute and may be understood differently by different people. Consumers may focus on the specification quality of a product or service, or how it compares to competitors in the marketplace. Producers might measure the conformance quality, or degree to which the product or service was produced correctly. Support personnel may measure quality in the degree that a product is reliable, maintainable, or sustainable. †

Quality Assistance

An Agile model in which not testers or other experts dedicated to software quality are responsible for testing, but the developers themselves. With the Quality Assistance approach, testers support developers with guidance and coaching.

Quality Assurance

A way of preventing mistakes and defects in manufactured products and avoiding problems when delivering products or services to customers; which ISO 9000 defines as “part of quality management focused on providing confidence that quality requirements will be fulfilled.” This defect prevention in quality assurance differs subtly from defect detection and rejection in quality control and has been referred to as a shift left since it focuses on quality earlier in the process (i.e., to the left of a linear process diagram reading left to right). †

Quality Control

A process by which entities review the quality of all factors involved in production. ISO 9000 defines quality control as “a part of quality management focused on fulfilling quality requirements.” QC places emphasis on three aspects: elements such as controls, job management, defined and well managed processes, performance and integrity criteria, and identification of records; competence, such as knowledge, skills, experience, and qualifications; and soft elements, such as personnel, integrity, confidence, organizational culture, motivation, team spirit, and quality relationships. †

Quantity query

A complex CSS selector that allows styles to be applied to elements based on the number of siblings. The term was first coined in 2015 by Heydon Pickering. [i quantityqueries.com](http://i.quantityqueries.com)

Queries per second

→ Requests per second

Query

A form of questioning, in a line of inquiry. In computing, a precise request for information retrieval. †

Query language

A language to make queries in databases and information systems. Query languages can be classified according to whether they are database query languages or information retrieval query languages. The difference is that a database query language attempts to give factual answers to factual questions, while an information retrieval query language attempts to find documents containing information that is relevant to an area of inquiry. †

QUIC

A general-purpose transport-layer network protocol. While still an Internet Draft, QUIC is used by more than half of all connections from the Chrome web browser to Google's servers. Most other web browsers do not support the protocol. Among other applications, QUIC improves performance of connection-oriented web applications that are currently using TCP. QUIC was designed by Jim Roskind at Google, implemented in 2012, announced in 2013, and then proposed to the IETF. †

Quick UDP Internet Connections

→ QUIC

Quirks mode

A technique used by some web browsers for maintaining backward-compatibility with web pages designed for old web browsers, instead of strictly complying with the respective standards in strict mode. One prominent difference between quirks and strict mode is the handling of the CSS box model. Before version 6, Internet Explorer used an algorithm for determining the width of an element's box which conflicted with the algorithm detailed in the CSS specification, and due to Internet Explorer's popularity many pages were created which relied upon this non-standard algorithm, or used a box model hack. †



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

R

Race condition

The condition of an electronics, software, or other system where the system's substantive behavior is dependent on the sequence or timing of other uncontrollable events. It becomes a bug when one or more of the possible behaviors is undesirable. A race condition can be difficult to reproduce and debug because the end result is non-deterministic and depends on the relative timing between interfering threads. Problems that occur when using systems can therefore disappear when running in debug mode, when additional logging is added, or when attaching a debugger, often referred to as a "Heisenbug." It is therefore better to avoid race conditions by careful software design. The term "race condition" was already in use by 1954. †

Race hazard

→ Race condition

RACI matrix

→ Responsibility Assignment Matrix

RADIUS

→ Remote Authentication Dial-In User Service

Rails

→ Ruby on Rails

Raku

A member of the Perl family of programming languages. Formerly known as Perl 6, it was renamed in 2019. Raku introduces elements of many modern and historical languages. Compatibility with Perl was not a goal, though a compatibility mode is part of the specification. The design process for Raku began in 2000. † [i raku.org](https://raku.org)

RAM

→ Random-Access Memory

→ Responsibility Assignment Matrix

Random variable

A variable whose values depend on outcomes of a random phenomenon. The formal mathematical treatment of random variables is a topic in probability theory. In that context, a random variable is understood as a measurable function defined on a probability space whose outcomes are typically real numbers. †

Random-Access Memory

A form of computer memory that can be read and changed in any order, typically used to store working data and machine code. A random-access memory device allows data items to be read or written in almost the same amount of time irrespective of the physical location of data inside the memory, in contrast with other direct-access data storage media. †

Ranking

A relationship between a set of items such that, for any two items, the first is either ranked higher than, ranked lower than, or ranked equal to the second. In mathematics, this is known as a weak order or total preorder of objects. It is not necessarily a total order of objects because two different objects can have the same ranking. The rankings themselves are totally ordered. Search engines rank web pages by their expected relevance to a user's query using a combination of query-dependent and query-independent methods. Query-independent methods attempt to measure the estimated importance of a page, independent of any consideration of how well it matches the specific query. Query-independent ranking is usually based on link analysis; examples include the HITS algorithm, PageRank, and TrustRank.

†

Raster image

A dot matrix data structure that represents a generally rectangular grid of pixels (points of color), viewable via a monitor, paper, or other display medium. Raster images are stored in image files with varying formats. A raster is technically characterized by the width and height of the image in pixels and by the number of bits per pixel (or color depth, which determines the number of colors it can represent). Most computer images are stored in raster graphics formats or compressed variations, including GIF, JPEG, and PNG. †

Rate limiting

A measure to control the rate of requests sent or received by a network interface controller. Rate limiting can be used to prevent DoS attacks and to limit web scraping. †

Rax A React framework for building universal applications. Rax is maintained by Alibaba. [i rax.js.org](http://rax.js.org)

RCDATA

→ Replaceable Character Data

RCS

→ Revision Control System

RDBMS

→ Relational Database Management System

RDF

→ Resource Description Framework

RDF Site Summary

A web feed which allows users and applications to access updates to websites in a standardized, computer-readable format. These feeds can, for example, allow a user to keep track of many different websites in a single news aggregator. Websites usually use RSS feeds to publish frequently updated information, such as blog entries, news headlines, or episodes of audio and video series. An RSS document (called feed, web feed, or channel) includes full or summarized text, and metadata, like publishing date and author names. †

RDP

→ Remote Desktop Protocol

RDSMS

→ Relational Data Stream Management System

React

A JavaScript library for building user interfaces. React was first released in 2013 and is maintained by Facebook and a community of individual developers and companies. React can be used as a base in the development of single-page or mobile applications. However, React is only concerned with rendering data to the DOM and so creating React applications usually requires the use of additional libraries for state management, routing, and interaction with APIs. † [i reactjs.org](https://reactjs.org)

React Native

A mobile application framework first released in 2015 by Facebook. React Native enables to use the React library along with native mobile platform capabilities. †

Reactive Extensions for JavaScript

A library for the development of asynchronous and event-based programs, with helpers for asynchronous or callback-based code. [i reactivex.io](https://reactivex.io)

Reactive Manifesto

A systems architecture approach in which it is declared necessary for systems to be responsive, resilient, elastic, and message-driven. Such systems are considered reactive systems. [i reactive-manifesto.org](https://reactive-manifesto.org)

Reactive programming

A declarative programming paradigm concerned with data streams and the propagation of change. With this paradigm it is possible to express static (e.g., arrays) or dynamic (e.g., event emitters) data streams with ease, and also communicate that an inferred dependency within the associated execution model exists, which facilitates the automatic propagation of the changed data flow. Reactive programming has been proposed as a way to simplify the creation of interactive user interfaces and near-real-time system animation. †

ReactJS

→ React

Read the Fucking Manual

The suggestion that one could have found more information or a solution to a problem in documentation. Initialisms similar to RTFM include “STFW” (“Search the Fucking Web”), “GIYF” (“Google Is Your Friend”), “DYOR” (“Do Your Own Research”), and “LMGTFY” (“Let Me Google That for You”). †

Read-Eval-Print Loop

A simple, interactive computer programming environment that takes single user inputs (i.e., single expressions), evaluates (executes) them, and returns the result to the user; a program written in a REPL environment is executed piecewise. The term is usually used to refer to programming interfaces similar to the classic Lisp machine interactive environment. Common examples include command-line shells and similar environments for programming languages. The technique is characteristic of scripting languages. †

Readability

The ease with which a reader can understand a written text. In natural language, the readability of text depends on its content (the complexity of its vocabulary and syntax) and its presentation (such as typographic aspects like font size, line height, and line length). Not to be confused with legibility. †

Reading disorder

→ Dyslexia

README

A file that contains information about other files in a directory or archive of computer software. A form of documentation, it is usually a simple plain-text file called READ.ME, README.TXT, README.md (for a text file using Markdown), README.1ST, or just README. The file's name is generally written in uppercase letters. †

Real User Monitoring

A passive monitoring technology that records all interaction of a user with a website, or of a client with a server or cloud-based application. Monitoring actual user interaction is important to operators to determine if users are being served quickly and without errors and, if not, which part of a business process is failing. Real user monitoring data is used to determine the actual service-level quality delivered to end users and to detect errors or slowdowns on websites. †

RealAudio

A proprietary audio format released in 1995 by RealNetworks. †

Really Simple Syndication

→ RDF Site Summary

RealVideo

A suite of proprietary video compression formats first released in 1997 by RealNetworks. †

Recidivism

As an Agile metric, the total number of user stories completed in a Sprint that entered development for the second time divided by the total number of completed stories.

Recommendation

The World Wide Web Consortium (W3C) term for a specification or web standard.

Recovery Point Objective

The maximum time period of data loss acceptable in the event of an incident or failure.

Recovery Time Objective

The maximum period of downtime acceptable to restore from backup and to resume processing.

Recursion

A method of solving a problem where the solution depends on solutions to smaller instances of the same problem. Such problems can generally be solved by iteration, but this needs to identify and index the smaller instances at programming time. At the opposite, recursion solves such recursive problems by using functions that call themselves from within their own code. The approach can be applied to many types of problems, and recursion is one of the central ideas of computer science. †

→ Recursion

Red, Green, and Blue

As the RGB color model, an additive color model in which red, green, and blue light are added together in various ways to reproduce a broad array of colors. The main purpose of the RGB color model is for the sensing, representation, and display of images in electronic systems, such as televisions and computers, though it has also been used in conventional photography. RGB is a device-dependent color model: Different devices detect or reproduce a given RGB

value differently, since the color elements (such as phosphors or dyes) and their response to the individual R, G, and B levels vary from manufacturer to manufacturer, or even in the same device over time. Thus an RGB value does not define the same color across devices without some kind of color management. †

Redesign

The process or outcome of a design update for a product or interface.

Redirect

A technique for making a web page available under more than one URL address. When a web browser attempts to open a URL that has been redirected, a page with a different URL is opened. Similarly, domain redirection or domain forwarding is when all pages in a URL domain are redirected to a different domain. URL redirection is done for various reasons: for URL shortening; to prevent broken links when web pages are moved; to allow multiple domain names belonging to the same owner to refer to a single website; to guide navigation into and out of a website; for privacy protection; and for hostile purposes such as phishing attacks or malware distribution. Redirects can be set up on the server and the client side. †

Redirect chain

Two or more redirects in succession. Search engine optimization (SEO) best practices suggest to avoid redirect chains, as each redirect is said to share less link equity.

Redundancy

The intentional duplication of critical components or functions of a system with the intention of increasing reliability of the system. There are four major forms of redundancy: hardware redundancy, such as dual modular redundancy and triple modular redundancy; information redundancy, such as error detection and correction methods; time redundancy, performing the same operation multiple times such as multiple executions of a program or multiple copies of data transmitted; and software redundancy such as N-version programming. †

The often unnoticed or unintentional duplication of software with the consequence of making the software less efficient and more difficult to maintain.

Redux

A JavaScript library for managing application state. It is most commonly used with libraries such as React or Angular for building user interfaces. Redux was created in 2015 by Dan Abramov and Andrew Clark. † i redux.js.org

Reed-Solomon codes

A group of error-correcting codes that were introduced in 1960 by Irving S. Reed and Gustave Solomon. They have many applications, the most prominent of which include consumer technologies such as MiniDiscs, CDs, DVDs, Blu-ray discs, QR codes, data transmission technologies such as DSL and WiMAX, broadcast systems such as satellite communications, DVB and ATSC, and storage systems such as RAID 6. Reed-Solomon codes operate on blocks of data treated as sets of finite-field elements called symbols, where they are able to detect and correct multiple symbol errors. For example, Reed-Solomon codes can help correct burst errors associated with media defects, and make data transmissions over erasure channels more reliable. †

Refactoring

The process of restructuring and optimizing existing computer code—changing the factoring—

without changing its external behavior. Refactoring is intended to improve non-functional attributes of the software. Advantages include improved code readability and reduced complexity; these can improve source code maintainability and create a more expressive internal architecture or object model to improve extensibility. †

Reference error

As `ReferenceError`, an object representing an error (and the error itself) when a non-existent variable is referenced. ‡

Referential opacity

A property of computer programs, an expression that is not referentially transparent (and therefore referentially opaque). †

Referential transparency

A property of computer programs, an expression is called referentially transparent if it can be replaced with its corresponding value without changing the program's behavior. This requires that the expression be pure, that is to say the expression value must be the same for the same inputs and its evaluation must have no side effects. †

Reflow

The re-processing and re-drawing a part or all of a web page after making changes DOM or CSS changes. Reflow affects the (perceived) performance of a page or app. ‡

Regex

→ Regular expression

Registrar

A company that manages the reservation of Internet domain names. A domain name registrar must be accredited by and operate in accordance with the guidelines of a generic top-level domain (gTLD) registry or a country code top-level domain (ccTLD) registry. †

Regular expression

A sequence of characters that define a search pattern. Usually such patterns are used by string searching algorithms for “find” or “find and replace” operations on strings, or for input validation. Regular expressions are a technique developed in theoretical computer science and formal language theory. They are used in search engines, “search and replace” dialogs of word processors and text editors, in text processing utilities such as `sed` and `awk`, and in lexical analysis. Many programming languages provide regex capabilities either built-in or via libraries. †

Rehydration

→ Hydration

Relational Data Stream Management System

A distributed, in-memory data stream management system (DSMS) that is designed to use standards-compliant SQL queries to process unstructured and structured data streams in real-time. Unlike SQL queries executed in a traditional RDBMS, which return a result and exit, SQL queries executed in a RDSMS do not exit, generating results continuously as new data become available. †

Relational database

A digital database based on the relational model of data. A relational database has gradually come to describe a broader class of database systems, which at a minimum present the data

to the user as relations (a presentation in tabular form, i.e., as a collection of tables with each table consisting of a set of rows and columns), and provide relational operators to manipulate the data in tabular form. †

Relational Database Management System

A database management system (DBMS) based on the relational model. Most databases in widespread use today are based on this model. †

Relational model

An approach to database management using a structure and language consistent with first-order predicate logic, first described in 1969 by Edgar F. Codd, where all data is represented in terms of tuples, grouped into relations. A database organized in terms of the relational model is a relational database. The purpose of the relational model is to provide a declarative method for specifying data and queries: Users directly state what information the database contains and what information they want from it, and let the database management system software take care of describing data structures for storing the data and retrieval procedures for answering queries. †

Relative sizing

In CSS, the using of units relative to something else, like a parent element's font size or width.

Relaunch

The (usually public) release of a significantly revised software product.

Rem

→ Root em

Remote Authentication Dial-In User Service

A networking protocol that provides centralized authentication, authorization, and accounting (AAA) management for users who connect and use a network service. RADIUS was developed in 1991 by Livingston Enterprises as an access server authentication and accounting protocol. It was later brought into IEEE 802 and IETF standards. RADIUS is a client/server protocol that runs in the application layer, and can use either TCP or UDP. †

Remote Desktop Protocol

A proprietary protocol developed by Microsoft which provides a user with a graphical interface to connect to another computer over a network connection. The user employs RDP client software for this purpose, while the other computer must run RDP server software. The protocol is an extension of the ITU-T T.128 application sharing protocol. †

Remote method invocation

The calling of a method on a remote object, the object-oriented programming analog of a remote procedure call (RPC). †

Remote procedure call

The causing of a procedure (subroutine) to execute in a different address space (commonly on another computer on a shared network), with the call being coded as if it was a normal (local) procedure call. That is, without explicitly coding the details for the remote interaction, the programmer writes essentially the same code whether the subroutine is local to the executing program, or remote. †

Render tree

A tree of the visible elements of a page as generated from the DOM and CSSOM trees. Elements

for metadata content and elements “hidden” through `display: none` are not part of the render tree.

Renderer

A user agent that interprets the semantics of style sheets and renders documents that use them.

Rendering

The transforming of HTML documents and other resources of a web page into an interactive visual representation in a web browser. †

Rendering engine

→ Browser engine

RenderingNG

A substantially revised and updated architecture of the Blink rendering engine used by the Chromium project. [i is.gd/e9KbQ9](https://is.gd/e9KbQ9)

REP

→ Robots Exclusion Protocol

REPL

→ Read-Eval-Print Loop

Replaceable Character Data

A term (“RCDATA”) used to declare that a markup element may contain text content and entity references, but not sub-elements.

Replaced element

An element whose representation is outside the scope of CSS; they are external objects whose representation is independent of the CSS formatting model. Put in simpler terms, they are elements whose contents are not affected by the current document’s styles. The position of the replaced element can be affected using CSS, but not the contents of the replaced element itself. Some replaced elements, such as `iframe` elements, may have style sheets of their own, but they do not inherit the styles of the parent document. Typical replaced elements include `iframe`, `video`, `embed`, and `img`. ‡

Replay attack

A form of network attack in which valid data transmission is maliciously or fraudulently repeated or delayed. This is carried out either by the originator or by an adversary who intercepts the data and re-transmits it, possibly as part of a spoofing attack by IP packet substitution. This is one of the lower-tier versions of a man-in-the-middle attack. Replay attacks are usually passive in nature. †

Repo

→ Repository

Repository

A storage location for software. Repositories can be public or private, centralized or decentralized (as with version control repositories), and cover any kind of software.

Representational State Transfer

A group of software architecture design constraints that bring about efficient, reliable, and scalable distributed systems. A system is called RESTful when it adheres to those constraints. The basic idea of REST is that a resource, e.g., a document, is transferred with its state and relationships (hypertext) via well-defined, standardized operations and formats. Often APIs or

services call themselves RESTful when they directly modify a type of document as opposed to triggering actions elsewhere. ‡

Request

In HTTP, a client's message to a server soliciting a response. A request message consists of a request line (e.g., `GET /images/logo.png HTTP/1.1`, which requests a resource called `/images/logo.png` from the server), request header fields (e.g., `Accept-Language: en`), an empty line, and an optional message body. †

Request for Comments

A type of document from the technology community. An RFC document may come from many bodies including from the Internet Engineering Task Force (IETF), the Internet Research Task Force (IRTF), the Internet Architecture Board (IAB), or from independent authors. The RFC system is supported by the Internet Society (ISOC). An RFC is authored by engineers and computer scientists in the form of a memorandum describing methods, behaviors, research, or innovations applicable to the working of the Internet and Internet-connected systems. It is submitted either for peer review or to convey new concepts, information, and occasionally engineering humor. The IETF adopts some of the proposals published as RFCs as Internet Standards. †

Request header

An HTTP header that can be used in an HTTP request, and that does not relate to the content of the message. Request headers, like `Accept`, `Accept-*`, or `If-*`, allow to perform conditional requests; others like `Cookie`, `User-Agent`, or `Referer` narrow down the context so that the server can tailor the answer. Not all headers appearing in a request are request headers. For example, the `Content-Length` appearing in a `POST` request is actually an entity header referring to the size of the body of the request message. However, these entity headers are often called request headers in such a context. ‡

Request method

→ HTTP method

Requests per second

A common measure of the amount of traffic an information retrieval system, such as a search engine or a database, receives during one second. High-traffic systems must watch their RPS (or QPS, queries per second) in order to know when to scale the system to handle more load. †

RequireJS

A JavaScript file and module loader. [i requirejs.org](http://requirejs.org)

Reset

→ Reset style sheet

Reset style sheet

A set of CSS rules used to “clear” the formatting of HTML elements, or to make the respective formatting consistent in major web browsers. The usefulness of reset style sheets is disputed because they do not technically “reset” styling, and because in practice, their use is often unnecessary, only increasing the payload of the respective site or app.

Resolution

→ Display resolution

Resource Description Framework

A family of W3C specifications originally designed as a metadata data model. RDF has come to be used as a general method for conceptual description or modeling of information that is implemented in web resources, using a variety of syntax notations and data serialization formats. It is also used in knowledge management applications. RDF became a W3C Recommendation in 1999. † [i w3.org/TR/rdf11-concepts](http://w3.org/TR/rdf11-concepts)

Resource Hints

A number of HTML link relationships that allow to indicate what resources to fetch ahead of time in order to improve performance. Resource Hints include `dns-prefetch`, `preconnect`, `prefetch`, and `prerender`, and can be implemented using the HTML `link` element as well as the `Link` HTTP header. [i w3.org/TR/resource-hints](http://w3.org/TR/resource-hints)

Resource record

A DNS record type. Each resource record has a type (name and number), an expiration time (time to live), a class, and type-specific data. Resource records of the same type are described as a resource record set (RRset), having no special ordering. DNS resolvers return the entire set upon query, but servers may implement round-robin ordering to achieve load balancing. †

Response

In HTTP, a server's answer to a client. A response message consists of a status line which includes the status code and reason message (e.g., `HTTP/1.1 200 OK`, which indicates that the client's request succeeded), response header fields (e.g., `Content-Type: text/html`), an empty line, and an optional message body. †

Response header

An HTTP header that can be used in an HTTP response and that does not relate to the content of the message. Response headers, like `Age`, `Location`, or `Server` are used to give a more detailed context of the response. Not all headers appearing in a response are response headers. For example, the `Content-Length` header is an entity header referring to the size of the body of the response message. However, these entity requests are usually called responses headers in such a context. ‡

Responsibility Assignment Matrix

A description of the participation of various roles in completing tasks or deliverables for a project or business process. When referred to as a RACI matrix, "RACI" stands for the four key responsibilities most typically used: responsible, accountable, consulted, and informed. RAMs and RACIs are used for defining and clarifying roles and responsibilities in cross-functional or departmental projects and processes. †

Responsive design

→ Responsive web design

Responsive Images Community Group

A group of developers working towards "a client-side solution for delivering alternate image data based on device capabilities to prevent wasted bandwidth and optimize display for both screen and print." The RICG was founded in 2012. [i responsiveimages.org](http://responsiveimages.org)

Responsive web design

An approach to web design that makes web pages render well on a variety of devices and window or screen sizes. Recent work also considers the viewer proximity as part of the viewing

context as an extension for responsive web design. Content, design, and performance are necessary across all devices to ensure usability and satisfaction. A site designed responsively adapts the layout to the viewing environment by using fluid, proportion-based grids, flexible images, and CSS media queries. Responsive web design has become more important as the amount of mobile traffic accounts for more than half of total Internet traffic. †

Responsiveness

→ Responsive web design

REST

→ Representational State Transfer

Restricted production

A statement like `break` or `continue` that, when followed by a line terminator, triggers the automatic insertion of a semicolon (ASI).

Revalidation

Cache behavior in which a cache checks with the origin of a resource whether the resource has changed. If it has (HTTP 200 “OK” response), the origin server will also send the updated resource; if has not (HTTP 304 “Not Modified”), the cache will keep the resource.

Reverse proxy

A reverse proxy is a type of proxy server that retrieves resources on behalf of a client from one or more servers. These resources are then returned to the client, appearing as if they originated from the reverse proxy server itself. Popular web servers often use reverse-proxying functionality to shield application frameworks of weaker HTTP capabilities, where “weaker” means limitations to handle excessive load or a great variety of request formats. †

Revision control

→ Version control

Revision Control System

→ Version control

RFC

→ Request for Comments

RGB

→ Red, Green, and Blue

RIA → Rich Internet Application

RIB → Routing Information Base

RICG

→ Responsive Images Community Group

Rich Internet Application

→ Rich Web Application

Rich Site Summary

→ RDF Site Summary

Rich Text Format

A proprietary document file format with published specification developed by Microsoft from 1987 until 2008 for cross-platform document interchange with Microsoft products. Prior to 2008, Microsoft published updated specifications for RTF with major revisions of Microsoft Word and Office versions. Most word processors are able to read and write some versions of RTF. There

are several different revisions of RTF specification and portability of files depends on what version of RTF is being used. †

Rich Web Application

A web application that has many of the characteristics of desktop application software. The concept is closely related to a single-page application, and may allow the user interactive features such as drag and drop, context menus, WYSIWYG editing, etc. Prior to HTML 5, approaches to RWAs were based on Adobe Flash, Java applets, JavaFX, or Microsoft Silverlight. †

Right-to-left

A script in which writing starts from the right of a page and continues to the left. Arabic, Hebrew, Persian, Urdu, and Sindhi are the most widespread RTL writing systems in modern times. †

Rijndael

→ Advanced Encryption Standard

RIRO

→ Rubbish In, Rubbish Out

RMI

→ Remote method invocation

Roadmap

A flexible planning technique to support strategic and long-range planning, by matching short-term and long-term goals with specific technology solutions. A roadmap is a plan that applies to a new product or process and may include using technology forecasting or scouting to identify suitable emerging technologies. †

Robot

→ Crawler

Robots Exclusion Protocol

A combination of standards and conventions governing web crawler behavior and search engine indexing. The REP includes the robots exclusion standard (robots.txt), crawling and indexing directives for HTML meta elements, the Sitemaps protocol, and the `rel=nofollow` microformat.

Robots exclusion standard

→ robots.txt

robots.txt

A standard and special file used by websites to communicate with web robots and crawlers. The standard specifies how to inform the web robot about which areas of the website should not be processed or scanned. Robots are often used by search engines to categorize websites. Not all robots cooperate with the standard; email harvesters, spambots, malware, and robots that scan for security vulnerabilities may even start with the portions of the website where they have been told to stay out. † [i robotstxt.org](http://robotstxt.org)

Robustness Principle

→ Postel's Law

Root

→ Root directory

→ Root element

→ Root node

→ Superuser

Root directory

The first or top-most directory in a hierarchy in a computer file system. It can be likened to the trunk of a tree, as the starting point where all branches originate from. The root file system is the file system contained on the same disk partition on which the root directory is located; it is the file system on top of which all other file systems are mounted as the system boots up. †

Root element

The element that encloses all other elements in a document and is therefore the sole parent element to all other elements. A root element is also the root node of the DOM. Root elements are also called document elements. In HTML documents, the `html` element is the root element.

†

Root em

A typographic unit in CSS (`rem`) that corresponds with the computed value of the font size of the root element (for HTML, the `html` element).

Root name server

→ Root server

Root node

The top-most node in a tree. The root node has no parent. It is the node at which algorithms on the tree begin, since a tree being a data structure, one can only pass from parents to children.

†

Root server

A name server for the root zone of the Domain Name System (DNS) of the Internet. It directly answers requests for records in the root zone and answers other requests by returning a list of the authoritative name servers for the appropriate top-level domain (TLD). Root name servers are a critical part of the Internet infrastructure because they are the first step in translating (resolving) human-readable host names into IP addresses that are used in communication between Internet hosts. †

Root zone

The top-level DNS zone in the hierarchical namespace of the Domain Name System (DNS) of the Internet. Since 2016, the root zone has been overseen by the Internet Corporation for Assigned Names and Numbers (ICANN), which delegates the management to a subsidiary acting as the Internet Assigned Numbers Authority (IANA). Distribution services are provided by Verisign. †

Rooting

The process of allowing users of smartphones, tablets, and other devices running the Android mobile operating system to attain privileged control (known as root access) over various subsystems. As Android uses the Linux kernel, rooting an Android device gives similar access to administrative (superuser) permissions as on Linux or any other Unix-like operating system.

†

Round-Trip Delay Time

→ Round-Trip Time

Round-Trip Time

The length of time it takes for a signal to be sent plus the length of time it takes for an acknowledgement of that signal to be received. This time delay includes the propagation times for the paths between the two communication endpoints. In the context of computer networks, the signal is generally a data packet, and the RTT is also known as the ping time. An Internet user can determine the RTT by using the `ping` command. †

Route 53

A Domain Name System (DNS) service. Released in 2010, Route 53 is part of Amazon.com's cloud computing platform, Amazon Web Services (AWS). The name is a possible reference to U.S. Routes, and "53" is a reference to the TCP/UDP port 53, where DNS server requests are addressed. In addition to being able to route users to various AWS services, including Elastic Compute Cloud (EC2) instances, Route 53 also enables AWS customers to route users to non-AWS infrastructure and to monitor the health of their application and its endpoints. †
i aws.amazon.com/route53

Router

For applications, a library that decides what web page is presented by a given URL. This middleware module is used for all URL functions, as these are given a path to a file that is rendered subsequently. ‡

For networks, a networking device that forwards data packets between computer networks. Routers perform the traffic directing functions on the Internet. Data sent through the Internet, such as a web page or email, is in the form of data packets. A packet is typically forwarded from one router to another router through the networks that constitute an inter-network (e.g., the Internet) until it reaches its destination node. †

Routine

A sequence of program instructions that performs a specific task, packaged as a unit. This unit can then be used in programs wherever that particular task should be performed. †

Routing

The process of selecting a path for traffic in a network or between or across multiple networks. The routing process usually directs forwarding on the basis of routing tables. †

Routing Information Base

→ Routing table

Routing table

A data table stored in a router or a network host that lists the routes to particular network destinations, and in some cases, metrics (distances) associated with those routes. The routing table contains information about the topology of the network immediately around it. †

RPC

→ Remote procedure call

RPM

→ RPM Package Manager

RPM Package Manager

A package management system originally called Red Hat Package Manager. The name "RPM" refers to .rpm file format and the package manager program itself. RPM was intended primarily

for Linux distributions; the file format is the baseline package format of the Linux Standard Base. It was first released in 1997. † i rpm.org

RPO

→ Recovery Point Objective

RPS → Requests per second

RR → Resource record

RSS → RDF Site Summary

→ Really Simple Syndication

→ Rich Site Summary

RTD

→ Round-Trip Delay Time

RTF

→ Rich Text Format

RTFM

→ Read the Fucking Manual

RTL

→ Right-to-left

RTO

→ Recovery Time Objective

RTT

→ Round-Trip Time

Rubber ducking

A method of debugging code. The name is a reference to a story in the book *The Pragmatic Programmer* in which a programmer would carry around a rubber duck and debug their code by forcing themselves to explain it, line-by-line, to the duck. Many other terms exist for this technique, often involving inanimate objects. †

Rubbish In, Rubbish Out

→ Garbage In, Garbage Out

Ruby

As a programming language, an interpreted, high-level, general-purpose language. Ruby is dynamically typed and uses garbage collection. It supports multiple programming paradigms, including procedural, object-oriented, and functional programming. Ruby was designed and developed in the 1990s by Yukihiro Matsumoto. According to the creator, Ruby was influenced by Perl, Smalltalk, Eiffel, Ada, Basic, and Lisp. † i ruby-lang.org

As markup, special HTML elements for brief text that goes alongside a base text; such Ruby text is used for pronunciation and annotation in East Asian documents. i w3.org/TR/ruby

Ruby on Rails

A server-side web application framework written in Ruby. Rails is a model-view-controller (MVC) framework, providing default structures for a database, a web service, and web pages. It encourages and facilitates the use of web standards such as JSON or XML for data transfer, HTML, CSS, and JavaScript for user interfacing. In addition to MVC, Rails emphasizes the use of other well-known software engineering patterns and paradigms, including Convention over

Configuration (CoC) and Don't Repeat Yourself (DRY). Rails was first released in 2005. † [i](http://i.rubyonrails.org)

Rule

A CSS selector and its successive declaration block.

Rule set

→ Rule

RUM

→ Real User Monitoring

Runbook

A compilation of routine procedures and operations that a system administrator or operator carries out. System administrators in IT departments and network operations centers (NOCs) use runbooks as a reference. Typically, a runbook contains procedures to begin, stop, supervise, and debug a system. It may also describe procedures for handling special requests and contingencies. An effective runbook allows other operators, with prerequisite expertise, to effectively manage and troubleshoot a system. †

Runtime compilation

→ Just-in-time compilation

RWD

→ Responsive web design

RxJS

→ Reactive Extensions for JavaScript



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

S

S3 A service offered by Amazon Web Services (AWS) that provides object storage through a web service interface. S3 uses the same scalable storage infrastructure that Amazon.com uses to run its global e-commerce network. It can be employed to store any type of object which allows for uses like storage for Internet applications, backup and recovery, disaster recovery, data archives, data lakes for analytics, and hybrid cloud storage. S3 was launched in 2006. † i aws.amazon.com/s3

SaaS

→ Software as a Service

Safari

A graphical web browser developed by Apple, based on the WebKit engine. First released on desktop in 2003 with Mac OS X Panther, a mobile version has been bundled with iOS devices since the iPhone's introduction in 2007. Safari is the default browser on Apple devices. A Windows version was available from 2007 to 2012. † i apple.com/safari

SAFe

→ Scaled Agile Framework

SAK

Secret → access key

Samba

→ MacWWW

Same origin

→ Origin

Same-origin policy

An important concept in the web application security model. Under the policy, a web browser permits scripts contained in a first web page to access data in a second web page, but only if both web pages have the same origin. An origin is defined as a combination of URI scheme, host name, and port number. The same-origin policy prevents a malicious script on one page from obtaining access to sensitive data on another web page through that page's Document Object Model (DOM). †

SAML

→ Security Assertion Markup Language

SAN

→ Storage area network

→ Subject Alternative Name

Sandbox

In computer security, a security mechanism for separating running programs, usually in an effort to mitigate system failures or software vulnerabilities from spreading. A sandbox is often

used to execute untested or untrusted programs or code, possibly from unverified or untrusted third parties, suppliers, users or websites, without risking harm to the host machine or operating system. A sandbox typically provides a tightly controlled set of resources for guest programs to run in, such as storage and memory scratch space. Network access, the ability to inspect the host system, or read from input devices are usually disallowed or heavily restricted. †

In software development, a testing environment that isolates untested code changes and outright experimentation from the production environment or repository. †

SAP User Interface for HTML5

A user interface development toolkit based on HTML, CSS, and JavaScript, providing libraries to build desktop and mobile web applications. SAPUI5, first named Phoenix, was released in 2010 by SAP. [i ui5.sap.com](http://ui5.sap.com)

SAPUI5

→ SAP User Interface for HTML5

Sass

A preprocessor scripting language that is interpreted or compiled into Cascading Style Sheets (CSS). SassScript is the scripting language itself. Sass consists of two syntaxes. The original syntax, called the indented syntax, uses a syntax similar to Haml. It uses indentation to separate code blocks and newline characters to separate rules. The newer syntax, SCSS (Sassy CSS), uses block formatting like that of CSS, with braces to denote code blocks and semicolons to separate lines within a block. The indented syntax and SCSS files are traditionally given the extensions `.sass` and `.scss`, respectively. Sass was developed in 2006 by Hampton Catlin and Natalie Weizenbaum. † [i sass-lang.com](http://sass-lang.com)

SassScript

The scripting language used with Sass. SassScript provides variables, nesting, mixins, and selector inheritance. †

SAST

→ Static Application Security Testing

Scalable and Modular Architecture for CSS

A CSS style guide. SMACSS was developed in 2011 by Jonathan Snook. [i smacss.com](http://smacss.com)

Scalable Vector Graphics

An XML-based vector image format for two-dimensional graphics with support for interactivity and animation. The SVG specification is an open standard developed by the World Wide Web Consortium (W3C) since 1999. SVG images and their behaviors are defined in XML files. This means that they can be searched, indexed, scripted, and compressed. [i w3.org/TR/SVG2](http://w3.org/TR/SVG2)

Scalar

→ Variable

Scaled Agile Framework

A set of organization and workflow patterns intended to guide enterprises in scaling lean and agile practices. Along with Large-Scale Scrum (LeSS), Disciplined Agile Delivery (DAD), and Nexus, SAFe is one of a growing number of frameworks that seek to address the problems encountered when scaling beyond a single team. The primary reference for SAFe was originally the development of a “big picture” view of how work flowed from product management (or

other stakeholders), through governance, program, and development teams, out to customers. The framework promotes alignment, collaboration, and delivery across large numbers of agile teams. SAFe was first released in 2011 and is made available by Scaled Agile. † [i scaledagileframework.com](http://scaledagileframework.com)

Scaled Scrum

→ Nexus

Schema stitching

The process of creating a single GraphQL schema from multiple GraphQL services.

SCM

→ Source Code Management

→ Source Control Management

Scope

The region of a computer program where a name binding is valid, that is, where the name can be used to refer to the entity. Such a region is referred to as a scope block. In other parts of the program the name may refer to a different entity (it may have a different binding), or to nothing at all (it may be unbound). The scope of a binding is also known as the visibility of an entity. A scope is a part of a program that can be the scope for a set of bindings, which in practice largely corresponds to a block, a function, or a file, depending on language and type of entity. The term “scope” is also used to refer to the set of all entities that are visible, or names that are valid within a portion of the program or at a given point in a program, which is more correctly referred to as context or environment. Strictly speaking, “part of a program” refers to “portion of the source code (area of text),” and is known as lexical scope. In some languages, however, “part of a program” refers to “portion of runtime (time period during execution),” and is known as dynamic scope. †

Scoped styles

A concept to limit otherwise broad styles to a certain element and its children (as opposed to having them affect many other elements of a document as well). The corresponding scoped attribute was specified but not standardized in favor of other approaches like web components. Frameworks like Vue.js support both concept and attribute.

Screen magnifier

Software that interfaces with a computer’s graphical output to present enlarged screen content. By enlarging part (or all) of a screen, people with visual impairments can better see words and images. This type of assistive technology is useful for people with some functional vision; people with visual impairments and little or no functional vision usually use a screen reader. †

Screen reader

A form of assistive technology that is essential to people who are blind, as well as useful to people who are visually impaired, illiterate, or have a learning disability. Screen readers are software applications that attempt to convey what people with normal eyesight see on a display to their users via non-visual means, like text-to-speech, sound icons, or a Braille device. They do this by applying a wide variety of techniques that include interacting with dedicated Accessibility APIs, using various operating system features (like inter-process communication and querying user interface properties), and employing hooking techniques. †

Script

Code, usually small routines and programs, written in a scripting language.

Scripting language

A programming language for a special runtime environment that automates the execution of tasks; the tasks could alternatively be executed one-by-one by a human operator. Scripting languages are often interpreted (rather than compiled). A scripting language can be viewed as a domain-specific language for a particular environment. The term “scripting language” is also used loosely to refer to dynamic high-level general-purpose languages, such as Perl, PowerShell, Python, and Tcl. The spectrum of scripting languages ranges from small and highly domain-specific languages to general-purpose programming languages used for scripting. Standard examples of scripting languages for specific environments include: Bash, for the Unix or Unix-like operating systems; ECMAScript (JavaScript), for web browsers; and Visual Basic for Applications (VBA), for Microsoft Office applications. †

Scroll Snap

A CSS module that introduces scroll snap positions, which enforce the scroll positions that a scroll container’s scrollport may end at after a scrolling operation has completed. ‡ i [w3.org/TR/css-scroll-snap-1](https://www.w3.org/TR/css-scroll-snap-1)

Scrolling

Sliding text, images, or video across a monitor or display, vertically or horizontally. “Scrolling” as such does not change the layout of the text or pictures but moves (pans or tilts) the user’s view across what is apparently a larger image that is not wholly seen. †

Scrollport

The visual viewport of a scroll container in a document. A scroll container is created by applying `overflow: scroll` to a container, or `overflow: auto` when there is enough content to cause overflow. The scrollport coincides with the padding box of that container and represents the content that can be seen as the box is scrolled. ‡

Scrum

An agile process framework for developing, delivering, and sustaining complex products, with an initial emphasis on software development, although it has been used in other fields and is slowly starting to be explored for other complex work, like research and advanced technologies. Scrum is designed for small teams which break their work into goals that can be completed within time-boxed iterations, called Sprints, no longer than one month and most commonly two weeks, then track progress and re-plan in 15-minute time-boxed daily meetings, called Daily Scrums. † i [scrumguides.org](https://www.scrumguides.org)

Scrum Master

A Scrum role that is accountable for guiding, coaching, and helping a Scrum Team and its environment to use Scrum.

Scrum of Scrums

A technique to operate Scrum at scale, for multiple teams working on the same product, allowing them to discuss progress on their interdependencies and to coordinate on delivering software especially in areas of overlap and integration. Depending on the cadence (timing) of the Scrum of Scrums, the relevant Daily Scrum for each Scrum Team ends by designating one member as an ambassador to participate in the Scrum of Scrums with ambassadors from other

teams. Rather than a progress update, the Scrum of Scrums should focus on how teams are collectively working to resolve, mitigate, or accept any risks, impediments, dependencies, and assumptions (RIDAs) that have been identified. †

Scrum Team

A self-organizing and cross-functional team consisting of Product Owner, the Development Team, and a Scrum Master.

Scrum Values

The values that the Scrum framework revolves around: Commitment, Focus, Openness, Respect, and Courage.

SCSS

→ Sass

SDK

→ Software Development Kit

SDLC

→ Software Development Lifecycle

SDP

→ Service discovery protocol

SEA

→ Search Engine Advertising

SeaMonkey

An Internet suite bundling web browser, an email, newsgroup, and feed client, an IRC chat, and an HTML editor. SeaMonkey is the continuation of the former Mozilla Application Suite, based on the same source code, which itself grew out of Netscape Communicator and formed the base of Netscape 6 and Netscape 7. SeaMonkey was created in 2005 after the Mozilla Foundation decided to focus on the standalone projects Firefox and Thunderbird. The development of SeaMonkey is community-driven. † [i seamonkey-project.org](http://seamonkey-project.org)

Search Engine Advertising

The purchasing and managing of advertisements in online search engines and their content networks.

Search engine indexing

The collecting, parsing, and storing of data to facilitate fast and accurate information retrieval. Index design incorporates interdisciplinary concepts from computer science, informatics, mathematics, linguistics, and cognitive psychology. Popular search engines focus on the full-text indexing of online, natural language documents. Media types such as video, audio, and graphics are also searchable. †

Search Engine Marketing

A form of Internet marketing that involves the promotion of websites by increasing their visibility in search engine results pages (SERPs) primarily through paid advertising. SEM may incorporate search engine optimization (SEO), which adjusts or rewrites website content and site architecture to achieve a higher ranking in search engine results pages to enhance pay-per-click (PPC) listings. †

Search Engine Optimization

The process of increasing the quality and quantity of website traffic by increasing the visibility

of a website or web page to users of a web search engine. SEO refers to the improvement of unpaid results (known as “natural” or “organic” results) and excludes direct traffic and visitors as well as the purchase of paid placement. SEO may target different kinds of searches, including image search, video search, academic search, news search, and industry-specific vertical search engines. Optimizing a website may involve editing and adding content as well as modifying HTML and associated code, to both increase its relevance to specific keywords and to remove barriers to the indexing by search engines. Promoting a site to increase the number of backlinks, or inbound links, is another SEO tactic. †

Search Engine Results Page

The results web page(s) of a search engine, in response to a search query.

Searching

A research and navigation strategy. One of the two major ways of interacting with the Web, the other one being browsing or surfing.

Section 508

United States accessibility regulations. [i section508.gov](http://www.section508.gov)

Sectioning content

Content that defines the scope of headings and footers, marked up through the `article`, `aside`, `nav`, and `section` elements. Each sectioning content element potentially has a heading and an outline. §

Secure context

A `Window` or `Worker` for which certain minimum standards of authentication and confidentiality are met. Many web APIs and features are accessible only in a secure context. The primary goal of secure contexts is to prevent MITM attackers from accessing APIs that could further compromise the victim of an attack. ‡

Secure Shell

A cryptographic network protocol for operating network services securely over an unsecured network. Typical applications include remote login and command execution, but any network service can be secured with SSH. SSH provides a secure channel over an unsecured network in a client-server architecture, connecting an SSH client application with an SSH server. The protocol specification distinguishes between two major versions, referred to as SSH-1 and SSH-2. The standard TCP port for SSH is 22. †

Secure Sockets Layer

The deprecated predecessor of Transport Layer Security (TLS), a cryptographic protocol designed to provide communications security over a computer network. SSL was developed from 1995 to 1998. †

Security

→ Information Security

Security Assertion Markup Language

An open standard for exchanging authentication and authorization data between parties, in particular, between an identity provider and a service provider. SAML is an XML-based markup language for security assertions (statements that service providers use to make access-control decisions). It is also a set of XML-based protocol messages, protocol message bindings, and profiles. SAML was first published in 2002. † [i saml.xml.org](http://www.saml.xml.org)

Security hacker

Someone who explores methods for breaching defenses and exploiting weaknesses in a computer system or network. Hackers may be motivated by a multitude of reasons, such as profit, protest, information gathering, challenge, recreation, or to evaluate system weaknesses to assist in formulating defenses against potential hackers. The subculture that has evolved around hackers is often referred to as the “computer underground.” Longstanding controversy surrounds the meaning of the term “hacker” itself. †

Security Operations Center

A centralized unit that deals with security issues on an organizational and technical level. It comprises the three building blocks people, processes, and technology for managing and enhancing an organization’s security posture. Governance and compliance provide a framework tying these building blocks together. A SOC within a building or facility is a central location from where staff supervises the site, using data processing technology. Typically, a SOC is equipped for access monitoring, and controlling of lighting, alarms, and vehicle barriers. †

security.txt

A proposed standard for website security information that is meant to allow security researchers to easily report security vulnerabilities. The standard prescribes a text file called security.txt that is similar to robots.txt but intended to be read by humans wishing to contact a website’s owner about security issues. †

Selector

A pattern matching rule and the first part of a CSS rule. Selectors are used to target HTML elements as well as, generally speaking, elements of other markup languages that are to be styled. The case-sensitivity of selectors depends on the document (markup) language. ‡

Selenium

A cross-platform portable framework for testing websites and apps. Selenium provides a playback tool (Selenium IDE) for authoring functional tests without the need to learn a test scripting language. It also provides a test-specific language (Selenese) to write tests in a number of popular programming languages, including C#, Groovy, Java, Perl, PHP, Python, Ruby, and Scala. The tests can then run against most modern web browsers. † i selenium.dev

SEM

→ Search Engine Marketing

Semantic Versioning

A versioning scheme. SemVer uses a sequence of three digits (Major . Minor . Patch), an optional pre-release tag, and an optional build meta-tag. In this scheme, risk and functionality are the measures of significance. Breaking changes are indicated by increasing the major number (high risk), new non-breaking features increment the minor number (medium risk) and all other non-breaking changes increment the patch number (lowest risk). The presence of a pre-release tag (-alpha, -beta) indicates substantial risk, as does a major number of zero (0.y.z), which is used to indicate a work-in-progress that may contain any level of potentially breaking changes (highest risk). † i semver.org

Semantic Web

An extension of the World Wide Web through standards set by the World Wide Web Consortium (W3C). The goal of the Semantic Web is to make Internet data machine-readable.

To enable the encoding of semantics with the data, technologies such as Resource Description Framework (RDF) and Web Ontology Language (OWL) are used. These technologies allow to formally represent metadata. For example, an ontology can describe concepts, relationships between entities, and categories of things. These embedded semantics offer significant advantages such as reasoning over data and operating with heterogeneous data sources. †

Semantics

For markup languages, the meaning and purpose of elements, element groups, and microformats.

For programming languages, the field concerned with the mathematical study of the meaning of programming languages. It does so by evaluating the meaning of syntactically valid strings defined by a specific programming language, showing the computation involved. In such a case that the evaluation would be of syntactically invalid strings, the result would be non-computation. Semantics describes the processes a computer follows when executing a program in that specific language. This can be shown by describing the relationship between the input and output of a program, or an explanation of how the program will be executed on a certain platform, hence creating a model of computation. †

SemVer

→ Semantic Versioning

Sender Policy Framework

An email authentication method designed to detect forging sender addresses during the delivery of the email. SPF alone, however, is limited to detecting a forged sender claim in the envelope of the email, which is used when the mail gets bounced. Only in combination with DMARC can it be used to detect the forging of the visible sender in emails (email spoofing), a technique often used in phishing and email spam. †

SEO

→ Search Engine Optimization

Separation of Concerns

A design principle for separating a computer program into distinct sections such that each section addresses a separate concern. A concern is a set of information that affects the code of a computer program. A concern can be as general as the details of the hardware for an application, or as specific as the name of which class to instantiate. A program that embodies SOC well is called a modular program. Modularity, and hence separation of concerns, is achieved by encapsulating information inside a section of code that has a well-defined interface. Layered designs in information systems are another embodiment of separation of concerns (e.g., presentation layer, business logic layer, data access layer, persistence layer). Separation of concerns results in more degrees of freedom for some aspect of the program's design, deployment, or usage. †

Serialization

The process of translating data structures or object state into a format that can be stored (for example, in a file or memory buffer) or transmitted (for example, across a network connection link) and reconstructed later (possibly in a different computer environment). When the resulting series of bits is re-read according to the serialization format, it can be used to create

a semantically identical clone of the original object. This process of serializing an object is in some situations also called marshalling an object. †

Serif

A small line or stroke regularly attached to the end of a larger stroke in a letter or symbol within a particular font or family of fonts. A typeface or font family making use of serifs is called a serif typeface (or serified typeface), and a typeface that does not include them is a sans-serif one. Some typography sources refer to serif typefaces as “roman,” and to sans-serif typefaces as “grotesque” or “gothic.” †

SERP

→ Search Engine Results Page

Server

A computer program or a device that provides functionality for other programs or devices, called clients. This architecture is called the client-server model, and a single overall computation is distributed across multiple processes or devices. Servers can provide various functionalities, often called services, such as sharing data or resources among multiple clients, or performing computation for a client. A single server can serve multiple clients, and a single client can use multiple servers. A client process may run on the same device or may connect over a network to a server on a different device. Typical servers are web servers, database servers, application servers, file servers, mail servers, print servers, and game servers. †

Server cluster

→ Cluster

→ Server farm

Server farm

A collection of computer servers, usually maintained by an organization to supply server functionality far beyond the capability of a single machine. Server farms often consist of thousands of computers which require a large amount of power to run and to keep cool. At the optimum performance level, a server farm has enormous costs (both financial and environmental) associated with it. Server farms often have backup servers, which can take over the function of primary servers in the event of a primary-server failure. Server farms are typically collocated with the network switches or routers which enable communication between the different parts of the cluster and the users of the cluster. †

Server logs

Log files related to server events. Server logs may be generated and stored on the respective servers.

Server Name Indication

An extension to the Transport Layer Security (TLS) computer networking protocol by which a client indicates which hostname it is attempting to connect to at the start of the handshaking process. This allows a server to present multiple certificates on the same IP address and TCP port number and hence allows multiple secure (HTTPS) websites (or any other service over TLS) to be served by the same IP address without requiring all those sites to use the same certificate. SNI is the conceptual equivalent to HTTP/1.1 name-based virtual hosting, but for HTTPS. †

Server push

→ Push technology

Server side

Operations on the server as opposed to the client side in a client-server relationship. †

Server-Side Rendering

A technique for rendering client-side single-page applications (SPAs) on the server, sending a fully-rendered page to the client. SSR is used to manage and alleviate the initial rendering when an app is first requested.

Serverless computing

A cloud computing execution model in which the cloud provider runs the server, and allocates machine resources on demand. Serverless computing does not hold resources in volatile memory; computing is rather done in short bursts with the results persisted to storage. When an app is not in use, there are no computing resources allocated to the app. “Serverless” is a misnomer in the sense that servers are still used by cloud service providers to execute code for developers. †

Service discovery

The automatic detection of devices and services offered on a computer network. Service discovery aims to reduce the configuration efforts from users. †

Service discovery protocol

A network protocol that helps accomplish service discovery. Examples for SDPs include the Bluetooth Service Discovery Protocol (SDP), DNS Service Discovery (DNS-SD), and the Dynamic Host Configuration Protocol (DHCP). †

Service Level Agreement

A commitment between a service provider and a client. Particular aspects of the service—quality, availability, responsibilities—are agreed between the service provider and the service user. The most common component of an SLA is that the services should be provided to the customer as agreed upon in the contract. As an example, Internet service providers and telcos will commonly include service level agreements within the terms of their contracts with customers to define the level(s) of service being sold in plain language terms. In this case the SLA will typically have a technical definition in mean time between failures (MTBF), mean time to repair or mean time to recovery (MTTR), identifying which party is responsible for reporting faults or paying fees, responsibility for various data rates, throughput, jitter, or similar measurable details. †

Service Level Expectation

The defining and setting of expectations for a service to be given, like what time it may take for work to be done, or issues to be resolved.

Service worker

A JavaScript file that operates as a type of web worker. Service workers work separately from the main browser thread to handle push notifications, synchronize data in the background, cache or retrieve resource requests, intercept network requests, and receive centralized updates. Service workers are used in an attempt to give progressive web apps the ability to provide the high performance and rich experience of native mobile apps, with the low storage space, real-time updates, and improved search engine visibility of traditional web apps. Service workers

go through a three-step lifecycle of registration, installation, and activation. †

Service-oriented architecture

A style of software design where services are provided to the other components by application components, through a communication protocol over a network. A SOA service is a discrete unit of functionality that can be accessed remotely and acted upon and updated independently, such as retrieving a credit card statement online. SOA is also intended to be independent of vendors, products, and technologies. A service has four properties according to one of many definitions of SOA: 1) It logically represents a business activity with a specified outcome; 2) it is self-contained; 3) it is a black box for its consumers, meaning the consumer does not have to be aware of the service's inner workings; and 4) it may consist of other underlying services. †

Servlet

A Java software component that extends the capabilities of a server. Although servlets can respond to many types of requests, they most commonly implement web containers for hosting web applications on web servers and thus qualify as a server-side servlet web API. †

Session

A temporary and interactive information interchange between two or more communicating devices, or between a computer and a user. A session is established at a certain point in time, and brought to an end at a later point. An established communication session may involve more than one message in each direction. A session is typically stateful, meaning that at least one of the communicating parties needs to hold information about the current state and the session history in order to be able to communicate, as opposed to stateless communication, where the communication consists of independent requests with responses. †

Session affinity

→ Sticky session

Session hijacking

The exploitation of a valid computer session—sometimes also called a session key—to gain unauthorized access to information or services in a computer system. In particular, session hijacking is used to refer to the theft of a cookie used to authenticate a user to a remote server. It has particular relevance to web developers, as the HTTP cookies used to maintain a session on many websites can be easily stolen by an attacker using an intermediary computer or with access to the saved cookies on the victim's computer. After successfully stealing appropriate session cookies, an adversary might use the Pass the Cookie technique to hijack the session. †

Session storage

Web storage that is both per-origin and per-instance (per-window or per-tab) and that is limited to the lifetime of the instance. Session storage is intended to allow separate instances of the same web app to run in different windows without interfering with each other, a use case that's not well-supported by cookies. †

Set An abstract data type that can store unique values, without any particular order. A set is a computer implementation of the mathematical concept of a finite set. Unlike most other collection types, rather than retrieving a specific element from a set, one typically tests a value for membership in a set. †

SFTP

→ SSH File Transfer Protocol

SGML

→ Standard Generalized Markup Language

Shadow DOM

A scoped subtree, or isolated DOM tree, with its own elements and styles. Shadow DOM is one of the web component standards. i [w3.org/TR/shadow-dom](https://www.w3.org/TR/shadow-dom)

Shadow host

The element that a shadow tree is attached to, like the root element of a custom element.

Shadow root

The topmost element of the shadow tree.

Shadow tree

A tree of DOM nodes whose topmost node is a shadow root; that is, the topmost node within a shadow DOM. A shadow tree is a hidden set of standard DOM nodes which is attached to a standard DOM node that serves as a host. The hidden nodes are not directly visible using regular DOM functionality, but require the use of a special Shadow DOM API to access. Nodes within the shadow tree are not affected by anything applied outside the shadow tree, and vice versa. This provides a way to encapsulate implementation details, which is especially useful for custom elements and other advanced design paradigms. ‡

Shared hosting

Infrastructure that is shared between different parties, like a web server that hosts several parties' websites, or a storage instance that is used by several customers.

Shared tenancy

→ Shared hosting

Shared worker

A special kind of web worker that can be accessed from several browsing contexts, such as several windows, iframes, or even workers. Shared workers implement an interface different from dedicated workers and have a different global scope, `SharedWorkerGlobalScope`. ‡

Shebang

The character sequence consisting of the characters number sign and exclamation mark (#!) at the beginning of a script. On Unix-like operating systems, when a text file has a shebang, it is interpreted as an executable file. In this case, the program loader mechanism parses the rest of the file's initial line as an interpreter directive. The loader executes the specified interpreter program, passing to it as an argument the path that was initially used when attempting to run the script, so that the program may use the file as input data. †

Shell

A user interface for access to an operating system's services. In general, operating system shells use either a command-line interface (CLI) or graphical user interface (GUI), depending on a computer's role and particular operation. It is named a shell because it is the outermost layer around the operating system. CLI shells require the user to be familiar with commands and their calling syntax, and to understand concepts about the shell-specific scripting language (e.g., Bash). †

Shim

A library that transparently intercepts API calls and changes the arguments passed, handles the operation itself, or redirects the operation elsewhere. Shims can be used to support an old

API in a newer environment, or a new API in an older environment. Shims can also be used for running programs on different software platforms than they were developed for. †

Shockwave Flash

→ Flash

Shortcut icon

→ Favicon

Shorthand

A term for CSS properties that allow to set the values of multiple other properties simultaneously. Using a shorthand property, it is possible to write more concise (and often more readable) style sheets. The CSS specification defines shorthand properties to group the definition of common properties acting on the same theme. For instance, the CSS background property is a shorthand property that can be used to define the values of background-color, background-image, background-repeat, background-position, and other background-related properties. ‡

SI → Speed Index

Siamese twins document

An HTML document with two heads and two bodys, an expression coined by Simon Pieters.

SIG A signature resource record in the Domain Name System (DNS). †

Sign-in

→ Login

Sign-on

→ Login

Signed HTTP Exchanges

A draft standard to make Internet content portable and distributable while verifying and vouching for its authenticity. SXG is a part of Google's Web Packaging effort. [i github.com/WICG/webpackage](https://github.com/WICG/webpackage)

Silk A web browser for Fire OS. Silk was released in 2011 by Amazon. [i amazon.com/dp/B01M35MQV4](https://amazon.com/dp/B01M35MQV4)

Silverlight

A deprecated application framework for writing and running rich Internet applications, similar to Adobe Flash. Silverlight was released in 2007. † [i microsoft.com/silverlight](https://microsoft.com/silverlight)

Simple Mail Transfer Protocol

A communication protocol for electronic mail transmission. As an Internet standard, SMTP was first defined in 1982 by RFC 821, and updated in 2008 by RFC 5321 to Extended SMTP additions, which is the protocol variety in widespread use today. Mail servers and other message transfer agents use SMTP to send and receive mail messages. Proprietary systems such as Microsoft Exchange and IBM Notes, and webmail systems such as Outlook, Gmail, and Yahoo Mail may use non-standard protocols internally, but all use SMTP when sending to or receiving email from outside their own systems. SMTP servers commonly use the Transmission Control Protocol (TCP) on port number 25. †

Simple Object Access Protocol

A messaging protocol specification for exchanging structured information in the implementation of web services in computer networks. SOAP's purpose is to provide extensibility, neutrality, and independence. It uses XML Information Set for its message format, and relies on application-layer protocols, most often Hypertext Transfer Protocol (HTTP), for message negotiation and transmission. SOAP was first released in 1998. †

Single point of failure

A part of a system that, if it fails, will stop the entire system from working. SPOFs are undesirable in any system with a goal of high availability or reliability, be it a business practice, software application, or other industrial system. Systems can be made robust by adding redundancy in all potential SPOFs. †

Single Responsibility Principle

A computer programming principle that states that every module, class, or function should have responsibility over a single part of the functionality provided by the software, and that responsibility should be entirely encapsulated by the module, class, or function. All its services should be narrowly aligned with that responsibility. †

Single-Page Application

A web application or site that interacts with the user by dynamically rewriting the current page rather than loading entire new pages from a server. This approach avoids interruption of the user experience between successive pages, making the application behave more like a desktop application. In an SPA, either all necessary code—HTML, CSS, and JavaScript—is retrieved with a single page load, or the appropriate resources are dynamically loaded and added to the page as necessary, usually in response to user actions. The page does not reload at any point in the process, nor does control transfer to another page, although the location hash or the HTML History API can be used to provide the perception and navigability of separate logical pages in the application. †

Site → Website

Site isolation

A concept from the Chromium project that ensures that pages from different websites are put into different processes, sandboxed and therefore limiting what processes are allowed to do. Site isolation also enables to block processes from receiving sensitive data from other websites.

Site map

A list of pages of a website. There are three primary kinds of site map: 1) site maps used during the planning of a website by its designers; 2) human-visible listings, typically hierarchical, of the pages on a site; and 3) structured listings (Sitemaps) intended for web crawlers such as search engines. †

Sitemaps

A protocol that allows to inform search engines about URLs on a website that are available for crawling. A sitemap is an XML file that lists the URLs for a site. It allows webmasters to include additional information about each URL: when it was last updated, how often it changes, and how important it is in relation to other URLs of the site. This allows search engines to crawl the site more efficiently and to find URLs that may be isolated from the rest of the site's content. The Sitemaps protocol is a URL inclusion protocol and complements robots.txt, a URL exclusion protocol. The Sitemaps protocol was first released in 2005. † [i sitemaps.org](http://i.sitemaps.org)

Skeleton screen

A UI that displays rudimentary placeholders while the actual content is being loaded. The respective placeholders commonly use a similar shape to the actual elements. Skeleton screens contribute to a faster perceived performance. The concept is attributed to a 2013 article by Luke Wroblewski.

Sketch

A vector graphics editor. Sketch is primarily a UI and UX designing tool for website and mobile app design, but focus has been increased on prototyping and collaboration to make it a more comprehensive platform for digital design. Sketch was first released in 2010 for macOS. [i sketch.com](http://i.sketch.com)

Skin

→ Theme

Skip navigation

An accessibility technique that consists of placing one or more visually hidden hyperlinks at the beginning of a document to allow users of assistive technology to directly access main or other content sections, thereby bypassing (“skipping”) navigation blocks.

SLA

→ Service Level Agreement

SLE → Service Level Expectation

Sliding Doors

A once-popular obsolete CSS technique to layer background images. It was presented in 2003 by Douglas Bowman. [i alistapart.com/article/slidingdoors](http://i.alistapart.com/article/slidingdoors)

SLOC

→ Source Lines of Code

Sloppy mode

A colloquial name for the opposite of JavaScript’s strict mode.

Slot The HTML `slot` element and the respective use with web components.

Slowloris

A denial of service attack tool which allows a single machine to take down another machine’s web server with minimal bandwidth and side effects on unrelated services and ports. Slowloris tries to establish connections to the target web server and to hold these open as long as possible, eventually leading the affected server to deny additional connection attempts. The program was named after slow lorises, a group of primates which are known for their slow movement. Slowloris was released in 2009. †

Slug

The part of a URL that identifies a page in human-readable keywords. A slug is usually the end part of the URL, which can be interpreted as the name of the resource, similar to the basename in a filename or the title of a page. The name is based on the use of the word “slug” in the news media to indicate a short name given to an article for internal use. †

SMACSS

→ Scalable and Modular Architecture for CSS

Small integer

An integral data type of 16 bits, with a signed range from $-32,768$ to $32,767$, and an unsigned range from 0 to 65,535.

Smashing Magazine

A popular online magazine for web design and development. Smashing Magazine was founded in 2006 by Vitaly Friedman and Sven Lennartz. [i smashingmagazine.com](http://i.smashingmagazine.com)

SME

→ Subject-Matter Expert

Smi → Small integer

SMIL

→ Synchronized Multimedia Integration Language

Smishing

A phishing attack performed through SMS/text messages.

Smoke testing

The preliminary testing to reveal simple failures severe enough to, for example, reject a prospective software release. Smoke tests are a subset of test cases that cover the most important functionality of a component or system, used to aid assessment of whether main functions of the software appear to work correctly. When used to determine if a computer program should be subjected to further, more fine-grained testing, a smoke test may be called an intake test. Alternately, it is a set of tests run on each new build of a product to verify that the build is testable before the build is released into the hands of the test team. †

SMTP

→ Simple Mail Transfer Protocol

Snake case

The practice of writing compound words or phrases in which the elements are separated with one underscore character (“_”) and no spaces, with each element’s initial letter usually lowercased within the compound and the first letter either upper- or lowercase (“the_quick_brown_fox”). Snake case is commonly used in computer code for variable, function, and sometimes file names. †

Snap position

A point that a scrollport will stop moving at after a scrolling operation is completed. This allows a scrolling experience that gives the effect of paging through content rather than needing to drag content into view. ‡

SNI → Server Name Indication

Snowpack

A frontend build tool. Snowpack was released in 2020. i snowpack.dev

SOA

→ Service-oriented architecture

→ Start of Authority

SOAP

→ Simple Object Access Protocol

SOC

→ Security Operations Center

→ Separation of Concerns

Social Web

→ Web 2.0

Soft launch

A preview release of a product or service to a limited audience prior to the general public. Soft-launching a product is sometimes used to gather data or feedback regarding its acceptance in

the marketplace, prior to making it widely available during an official release or grand opening. A company may also choose a soft launch to test the functionality of a product, allowing adjustments to be made before a wider release and marketing efforts are implemented. †

Soft opening

→ Soft launch

Software

A collection of instructions and data that tell a computer how to work. This is in contrast to physical hardware, from which the system is built and actually performs the work. In computer science and software engineering, computer software is all information processed by computer systems, programs, and data. Computer software includes computer programs, libraries, and related non-executable data, such as online documentation or digital media. Computer hardware and software require each other and neither can be realistically used on its own. †

Software as a Service

A software licensing and delivery model in which software is licensed on a subscription basis and is centrally hosted. SaaS is sometimes referred to as “on-demand software,” and was formerly referred to as “software plus services” by Microsoft. SaaS applications are also known as web-based software, on-demand software, and hosted software. The term “Software as a Service” (SaaS) is considered to be part of the nomenclature of cloud computing, along with Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Desktop as a Service (DaaS), Managed Software as a Service (MSaaS), Mobile Backend as a Service (MBaaS), Data Center as a Service (DCaaS), and Information Technology Management as a Service (ITMaaS). SaaS apps are typically accessed by users using a thin client, e.g., via a web browser. †

Software crisis

A term used in the early days of computing science for the difficulty of writing useful and efficient computer programs in the required time. The software crisis was due to the rapid increases in computer power and the complexity of the problems that could now be tackled. With the increase in the complexity of the software, many software problems arose because existing methods were inadequate. The term “software crisis” was coined by attendees at the first NATO Software Engineering Conference in 1968 in Garmisch, Germany. †

Software development

The process of conceiving, specifying, designing, programming, documenting, testing, and bugfixing involved in creating and maintaining applications, frameworks, or other software components. Software development is a process of writing and maintaining source code, but in a broader sense, it includes all that is involved between the conception of the desired software through to the final manifestation of the software, sometimes in a planned and structured process. Therefore, software development may include research, prototyping, modification, reuse, re-engineering, maintenance, and other activities that result in software products. †

Software Development Kit

A collection of software development tools in one installable package. SDKs ease creation of applications by having a compiler, a debugger, and perhaps a software framework. They are often used to create applications with advanced functionalities. SDKs are normally specific to a hardware platform and operating system combination, and some SDKs are required for

developing a platform-specific app. For example, the development of an Android app on the Java platform requires a Java Development Kit, while for iOS apps, the iOS SDK is required. †

Software Development Lifecycle

The process of planning, analyzing, designing, developing, testing, deploying, and maintaining software.

Software framework

An abstraction in which software providing generic functionality can be selectively changed by additional user-written code, thus providing application-specific software. A software framework provides a standard way to build and deploy applications and is a universal, reusable software environment that provides particular functionality as part of a larger software platform to facilitate the development of software applications, products, and solutions. Software frameworks may include support programs, compilers, code libraries, tool sets, and application programming interfaces (APIs) that bring together all the different components to enable the development of a project or system. †

Software modernization

The converting, rewriting, or porting of a legacy system to a modern computer programming language, software libraries, protocols, or hardware platform. This transformation aims to retain and extend the value of the legacy investment. †

Software stack

→ Solution stack

Software testing

→ Testing

SOLID

A mnemonic acronym for five design principles intended to make software designs more understandable, flexible, and maintainable. SOLID refers to 1) the Single Responsibility Principle, 2) the Open-Closed Principle, 3) the Liskov Substitution Principle, 4) the Interface Segregation Principle, and 5) the Dependency Inversion Principle. SOLID represents a subset of software development principles promoted by Robert C. Martin. †

Solution stack

A set of software subsystems or components needed to create a complete platform such that no additional software is needed to support applications. Applications are said to “run on” or “run on top of” the resulting platform. †

SOP

→ Same-origin policy

Source Code Management

→ Version control

Source Control Management

→ Version control

Source Lines of Code

→ Lines of Code

SPA → Single-Page Application

Spacer

An old and obsolete web design technique of using small transparent images (usually GIF

graphics of 1×1 pixels) to achieve a particular layout. Spacer images were typically used together with layout tables.

Spaghetti code

A pejorative phrase for unstructured and difficult-to-maintain source code. Spaghetti code can be caused by several factors, such as volatile project requirements, lack of programming style rules, and insufficient ability or experience. †

Spam

An unsolicited, undesired, or illegal message. †

Spamdexing

The deliberate manipulation of search engine indexes. Spamdexing involves a number of methods, such as link building and repeating unrelated phrases, to manipulate the relevance or prominence of resources indexed, in a manner inconsistent with the purpose of the indexing system. †

Spamming

The use of messaging systems to send an unsolicited message (spam), especially advertising, as well as sending messages repeatedly on the same website. While the most widely recognized form of spam is email spam, the term is applied to similar abuses in other media: instant messaging spam, Usenet newsgroup spam, search engine spam, spam in blogs, wiki spam, online classified ads spam, mobile phone messaging spam, Internet forum spam, junk fax transmissions, social spam, spam mobile apps, television advertising, and file sharing spam. It is named after spam, a luncheon meat, by way of a Monty Python sketch about a restaurant that has spam in every dish and where patrons annoyingly chant “spam” over and over again.

†

SPDY

A deprecated networking protocol that was developed primarily at Google for transporting web content. SPDY (pronounced “speedy”) manipulates HTTP traffic, with particular goals of reducing web page load latency and improving web security. SPDY achieves reduced latency through compression, multiplexing, and prioritization, although this depends on a combination of network and website deployment conditions. Throughout the process, the core developers of SPDY have also been involved in the development of HTTP/2, SPDY’s successor. †

Spec

→ Specification

Specification

A set of documented requirements to be satisfied by a material, design, product, or service. A specification is often a type of technical standard. There are different types of technical or engineering specifications (specs), and the term is used differently in different technical contexts. They often refer to particular documents or particular information within them. The word “specification” is broadly defined as “to state explicitly or in detail” or “to be specific.” †

Specificity

A part of the CSS cascade and the mechanism how declarations are applied, as specificity can be the deciding factor. A selector’s specificity is calculated by counting 1) whether it comes from a `style` attribute, 2) how many ID attributes it contains, 3) how many other attributes and pseudo-classes it contains, and 4) the number of element names and pseudo-elements involved. The

four resulting numbers yield the specificity, as with `1,0,0,0` for a `style` attribute, or `0,0,2,1` for a selector like `div.message.error`. If specificity decides on whether a declaration is applied, the declaration wins whose selector's specificity is higher, that is, the individual numbers are compared, from left to right, and whichever selector hits a higher number wins. (Otherwise, per the cascade, order will have the final say.)

Spectre

A vulnerability that affects modern microprocessors that perform branch prediction. On most processors, the speculative execution resulting from a branch misprediction may leave observable side effects that may reveal private data to attackers. Spectre was discovered in 2018. †

Speech synthesis

The artificial production of human speech. A computer system used for this purpose is called a speech computer or speech synthesizer, and can be implemented in software or hardware products. A text-to-speech (TTS) system converts normal language text into speech; other systems render symbolic linguistic representations like phonetic transcriptions into speech. †

Speed Index

A page load performance metric that shows how quickly the contents of a page are visibly populated. Speed Index is the average time at which visible parts of the page are displayed. Expressed in milliseconds, and dependent on the size of the view port, the lower the score, the better. ‡

SPF → Sender Policy Framework

Spider

→ Crawler

Spike

A product-testing method originating from Extreme Programming that is used to determine how much work will be required to solve or work around a software issue. Typically, a “spike test” involves gathering additional information or testing for easily reproduced edge cases. †

Spinner

A UI element that indicates that an action is taking place.

A UI element with which a user may adjust a value in an adjoining text box (numeric up/down). †

Splash screen

A graphical control element consisting of a window containing an image, a logo, and the current version of the software. A splash screen usually appears while a game or program is launching. A splash page can also be an introductory page on a website. A splash screen may cover the entire screen or web page, but it may also be a rectangle near the center of the screen or page. The splash screens of operating systems and applications that expect to be run in full screen usually cover the entire screen. On websites, splash pages are considered an anti-pattern. †

SPOF

→ Single point of failure

Spoofing

A situation in which a person or program successfully identifies as another by falsifying data, to gain an illegitimate advantage. †

Spread

An operator that allows an iterable such as an array expression or string to be expanded in places where zero or more arguments (for function calls) or elements (for array literals) are expected, or an object expression to be expanded in places where zero or more key-value pairs (for object literals) are expected. †

Sprint

An important, overarching event in Scrum that is to result in a potentially releasable Increment of “Done” product. A Sprint is time-boxed not to be longer than one month.

Sprint Goal

An objective for a Sprint in Scrum that is to guide the Development Team. A Sprint Goal is preferred to be measurable. Per the Scrum framework, a Sprint Goal becoming obsolete makes for the only acceptable reason to cancel a Sprint.

Sprite

A performance optimization technique implemented with graphics and CSS. A sprite is an image file combining several graphics that may be created automatically or manually. Individual graphics are displayed using CSS background properties and defining their dimensions. Using sprites saves HTTP requests and, under circumstances, graphics file size.

SQL

→ Structured Query Language

SQL injection

A code injection technique, used to attack data-driven applications, in which malicious SQL statements are inserted into an entry field for execution (e.g., to dump database contents to the attacker). SQL injection must exploit a security vulnerability in an application’s software, for example, when user input is incorrectly filtered for string literal escape characters embedded in SQL statements, or when user input is not strongly typed and unexpectedly executed. SQL injection is mostly known as an attack vector for websites but can be used to attack any type of SQL database. †

SQS

A distributed message queuing service introduced in 2004 by Amazon.com. SQS supports programmatic sending of messages via web service applications as a way to communicate over the Internet. It is intended to provide a highly scalable hosted message queue that resolves issues arising from the common producer-consumer problem or connectivity between producer and consumer. † i aws.amazon.com/sqs

Squad

The equivalent of a Scrum Team in Spotify’s Squad framework. i is.gd/SlluqK

Squarespace

A website building and hosting company. It provides software as a service for website building and hosting, allowing users to use pre-built website templates and drag-and-drop elements to create and modify web pages. Squarespace was founded in 2003. † i squarespace.com

Squint test

An improvised test for the effectiveness of a design, involving to squint the eyes when looking at the design to assess visual structure and hierarchy.

src A name conventionally used for the main folder for source code and files.

sRGB

→ standard Red Green Blue

SRI → Subresource Integrity

SRP → Single Responsibility Principle

SRV

A service locator resource record in the Domain Name System (DNS). †

SSG

→ Static Site Generation

→ Static Site Generator

SSH

→ Secure Shell

SSH File Transfer Protocol

A network protocol that provides file access, file transfer, and file management over any reliable data stream. SFTP was designed by the Internet Engineering Task Force (IETF) as an extension of the Secure Shell protocol (SSH) version 2.0 to provide secure file transfer capabilities. The protocol assumes that it is run over a secure channel, such as SSH, that the server has already authenticated the client, and that the identity of the client user is available to the protocol. †

SSIM

→ Structural Similarity Index Measure

SSL → Secure Sockets Layer

SSR → Server-Side Rendering

Stack

An abstract data type that serves as a collection of elements, with the two principal operations push, which adds an element to the collection, and pop, which removes the most recently added element that was not yet removed. The order in which elements come off a stack gives rise to its alternative name, LIFO (Last In, First Out). †

Stack level

The position of a box on the z-axis, relative to other stack levels within the same stacking context. The CSS `z-index` property can be used to define the stack level of the respective box in the current stacking context.

Stack Overflow

A Q&A site for professional and enthusiast programmers. Stack Overflow is a privately held website, the flagship site of the Stack Exchange Network, created in 2008 by Jeff Atwood and Joel Spolsky. The name for the website was chosen by voting. † i stackoverflow.com

Stacking context

A three-dimensional conceptualization of HTML elements along an imaginary z-axis relative to the user, who is assumed to be facing the viewport or web page. For CSS, each box belongs to one stacking context. The `z-index` property establishes whether a box establishes a stacking context, and the level of a box in its stacking context. ‡

Staging

→ Staging environment

Staging environment

A deployment environment that reflects the production environment.

Stand-up

A meeting in which attendees typically participate while standing. The discomfort of standing for long periods is intended to keep the meetings short. Stand-ups are sometimes confused with Daily Scrums. †

Standard

→ Technical standard

Standard Generalized Markup Language

A standard for defining generalized markup languages for documents. ISO 8879 *Annex A.1* states that generalized markup is based on two postulates: 1) declarative, for markup to describe a document's structure and other attributes rather than specify the processing that needs to be performed, because that is less likely to conflict with future developments; 2) rigorous, in order to allow markup to take advantage of the techniques available for processing strictly defined objects like programs and databases. SGML was first defined in 1986. HTML was theoretically an example of an SGML-based language until HTML 5, which browsers cannot parse as SGML for compatibility reasons. †

standard Red Green Blue

An RGB color space that HP and Microsoft created cooperatively in 1996 to use on monitors, printers, and the Internet. sRGB was subsequently standardized by the IEC as IEC 61966-2-1:1999. It is often the default color space for images that contain no color space information, especially if the images' pixels are stored in 8-bit integers per color channel. †

Standards mode

→ Strict mode

Standby redundancy

The availability of a spare secondary machine, like a server, as a backup for a primary machine. The secondary machine may or may not be in sync with the primary machine, and it may (“hot standby”) or may not (“cold standby”) be under power.

Star

A UI pattern for the (visual) marking of a favorite, like a location (Google Maps) or a software project (GitHub).

Star hack

A once-popular CSS hack allowing to apply declarations only to Internet Explorer 7 and below. The hack consisted of adding an asterisk (*) right in front of the property of a declaration so as to apply it in IE, while a declaration using the same—but “unprefixed”—property held for other browsers. The star hack is one of a class of similar hacks for Internet Explorer, as other characters, like an underscore (_), would have the same effect and would be used as well (underscore hack). i browserhacks.com/#ie

Start of Authority

A type of resource record in the Domain Name System (DNS) containing administrative information about the zone, especially regarding zone transfers. The SOA record format is specified in RFC 1035. †

Start page

→ Home page

Start tag

The opening tag of an HTML or another markup language's element, like `<form>`, a form's start tag. Not to be confused with an element (like a `div` element) or an attribute (like an `alt` attribute and its value).

State

The "remembering" of preceding events or user interactions, where the remembered information is called the state of the system. The set of states a system can occupy is known as its state space. In a discrete system, the state space is countable and often finite. The system's internal behavior or interaction with its environment consists of separately occurring individual actions or events, such as accepting input or producing output, that may or may not cause the system to change its state. Examples of such systems are digital logic circuits and components, automata and formal language, computer programs, and computers. †

Statement

A syntactic unit of an imperative programming language that expresses some action to be carried out. A program written in such a language is formed by a sequence of one or more statements. A statement may have internal components (e.g., expressions). †

Static

A type of web page that is delivered to the user's web browser exactly as stored, in contrast to dynamic web pages which are generated by a web application. Consequently, a static web page displays the same information for all users, from all contexts, subject to modern capabilities of a web server to negotiate content type or language of the document where such versions are available and the server is configured to do so. †

Static Application Security Testing

Testing tools and techniques to analyze source code, bytecode, and binaries for security vulnerabilities.

Static scope

→ Lexical scope

Static Site Generation

→ Static Site Generator

Static Site Generator

A usually template-based, often headless system that allows to generate static web pages.

Status code

→ HTTP status code

Sticky session

The routing of requests for a particular session to the same specific machine that handled the first request for that session.

Stimulus

→ Hotwire

Storage

The recording (storing) of information (data) in a storage medium. Paper, magnetic tapes, and optical discs are examples of storage media. Recording may be accomplished with virtually any form of energy. Electronic data storage requires electrical power to store and retrieve data; computer data storage is one of the core functions of a general-purpose computer. †

Storage area network

A computer network which provides access to consolidated, block-level data storage. SANs are primarily used to access data storage devices, such as disk arrays and tape libraries from servers so that the devices appear to the operating system as direct-attached storage. A SAN typically is a dedicated network of storage devices not accessible through the local area network (LAN).

†

Storage engine

→ Database engine

Storybook

A tool for building UI components and pages in isolation, to aid UI development, testing, and documentation. Storybook was released in 2016. i storybook.js.org

Strada

→ Hotwire

Stream

A sequence of data elements made available over time. A stream can be thought of as items on a conveyor belt being processed one at a time rather than in large batches. Streams are processed differently from batch data—normal functions cannot operate on streams as a whole, as they have potentially unlimited data, and formally, streams are co-data (potentially unlimited), not data (which is finite). Functions that operate on a stream, producing another stream, are known as filters, and can be connected in pipelines, analogously to function composition. Filters may operate on one item of a stream at a time, or may base an item of output on multiple items of input, such as a moving average. †

Streaming media

Multimedia that is constantly received by and presented to an end user while being delivered by a provider. The verb “to stream” refers to the process of delivering or obtaining media in this manner; the term refers to the delivery method of the medium, rather than the medium itself, and is an alternative to file downloading, a process in which the end user obtains the entire file for the content before watching or listening to it. †

Strict mode

A web browser compatibility mode in which standards are applied strictly and which, compared with quirks mode, only implements a small number of quirks. Strict mode is triggered by particular DOCTYPEs, like the standard HTML DOCTYPE `<!DOCTYPE html>`. ‡

For JavaScript, a way to opt into a restricted variant of JavaScript, thereby implicitly opting-out of “sloppy mode.” Strict mode is not just a subset, it intentionally has different semantics from normal code. Browsers not supporting strict mode will run strict mode code with different behavior from browsers that do, so strict mode is not relied on without feature-testing for support for the relevant aspects. Strict mode code and non-strict mode code can coexist, so scripts can opt into strict mode incrementally. Strict mode is triggered with `'use strict';`. ‡

String

A sequence of characters, either as a literal constant or as some kind of variable. The latter may allow its elements to be mutated and the length changed, or it may be fixed (after creation). A string is generally considered as a data type and is often implemented as an array data

structure of bytes (or words) that stores a sequence of elements, typically characters, using some character encoding. String may also denote more general arrays or other sequence (or list) data types and structures. †

Strong character

A character with a definite direction. Examples of this type of character include most alphabetic characters, syllabic characters, Han ideographs, non-European or non-Arabic digits, and punctuation characters that are specific to only those scripts. †

Structural Similarity Index Measure

A method for predicting the perceived quality of digital television and cinematic pictures, as well as other kinds of digital images and videos. SSIM is used for measuring the similarity between two images. The SSIM index is a full reference metric; in other words, the measurement or prediction of image quality is based on an initial uncompressed or distortion-free image as reference. †

Structure

In web development, the code that deals with how content is organized and weighed. This is usually achieved through HTML (HyperText Markup Language).

Structured Query Language

A domain-specific language used in programming and designed for managing data held in a relational database management system (RDBMS), or for stream processing in a relational data stream management system (RDSMS). SQL is particularly useful in handling structured data, i.e., data incorporating relations among entities and variables. The scope of SQL includes data query, data manipulation (insert, update, and delete), data definition (schema creation and modification), and data access control. Although SQL is essentially a declarative language (4GL), it also includes procedural elements. SQL was first mentioned in 1974, and became a standard of the American National Standards Institute (ANSI) in 1986. †

Stub

A piece of code used to stand in for some other programming functionality. A stub may simulate the behavior of existing code (such as a procedure on a remote machine, such methods are often called mocks) or be a temporary substitute for yet-to-be-developed code. Stubs are therefore most useful in porting, distributed computing, as well as general software development and testing. †

Style guide

Structured documentation for design particles, elements, and components. A style guide may be part of a design system.

Style sheet

A file or code snippet containing styling instructions. A style sheet represents a form of separation of presentation and content for web design in which the markup of a web page (usually HTML) contains the page's semantic content and structure, but does not define its visual layout (styling). Instead, that styling is defined in an external style sheet file using a style sheet language such as CSS or XSLT. This design approach is identified as a "separation" because it largely supersedes the antecedent methodology in which a page's markup defined both style and structure. †

Styled component

A case of CSS-in-JS in which CSS code is embedded (and scoped) within JavaScript components via tagged template literals. [i styled-components.com](https://www.styled-components.com)

styled-components

→ Styled component

stylelint

A CSS linter with support for CSS-like syntaxes like SCSS, Sass, Less and SugarSS, and capable of automatically fixing issues. [i stylelint.io](https://stylelint.io)

Styling

The act of designing and implementing a design for a website or app, or the code for the design of a website or app.

Stylus

A dynamic stylesheet preprocessor language that is compiled into Cascading Style Sheets (CSS). Its design is influenced by Sass and Less. Stylus was released in 2010 and is one of the most used CSS preprocessor syntaxes. [† i stylus-lang.com](https://stylus-lang.com)

Subject Alternative Name

An extension to X.509 that allows various values to be associated with a security certificate using a `subjectAltName` field. Subject Alternative Names (SANs) can cover email and IP addresses, URIs, DNS names, directory names, and other information. [†](#)

Subject-Matter Expert

A person who is an authority in a particular area or topic. The term “domain expert” is frequently used in expert systems software development, and there the term always refers to the domain other than the software domain. A domain expert is a person with special knowledge or skills in a particular area of endeavor (e.g., an accountant is an expert in the domain of accountancy). [†](#)

Subnav

→ Subnavigation

Subnavigation

A secondary or auxiliary website navigation menu. Visually, a subnavigation is usually less prominent than a main navigation menu.

Subnet

A logical subdivision of an IP network. Computers that belong to the same subnet are addressed with an identical most-significant bit-group in their IP addresses. This results in the logical division of an IP address into two fields: the network number or routing prefix, and the rest field or host identifier. Traffic is exchanged between subnetworks through routers when the routing prefixes of the source address and the destination address differ. The practice of dividing a network into two or more networks is called subnetting. Subnetting may enhance routing efficiency, or have advantages in network management when subnetworks are administratively controlled by different entities in a larger organization. [†](#)

Subnet mask

The bitmask that, when applied by a bitwise AND operation to any IP address in the network, yields the routing prefix. Subnet masks are expressed in dot-decimal notation like an IP address. For example, “255.255.255.0” is the subnet mask for the prefix “198.51.100.0/24”. [†](#)

Subnetwork

→ Subnet

Subresource Integrity

A W3C specification to provide a method to protect website delivery. Specifically, SRI validates assets served by a third party, such as a Content Delivery Network (CDN). This ensures these assets have not been compromised for hostile purposes. SRI was created in response to a number of attacks where CDN-served content was injected with malicious code, compromising thousands of websites using it. †

Subroutine

→ Routine

Subsetting

→ Font subsetting

Subversion

A software versioning and version control system. Software developers use Subversion to maintain current and historical versions of files such as source code and documentation. The goal of Subversion is to be a mostly compatible successor to the widely used Concurrent Versions System (CVS). Subversion was created in 2000 by CollabNet, and is now a top-level Apache project being built and used by a global community of contributors. † **i** subversion.apache.org

SUIT CSS

A CSS methodology for component-based UI development. **i** suitcss.github.io

Superkey

In the relational model of data, a set of attributes that uniquely identifies each tuple of a relation. Because superkey values are unique, tuples with the same superkey value must also have the same non-key attribute values. That is, non-key attributes are functionally dependent on the superkey. †

Superuser

A special user account used for system administration. Depending on the operating system, the actual name of this account might be “root,” “administrator,” “admin,” or “supervisor.” In some cases, the actual name of the account is not the determining factor; on Unix-like systems, for example, the user with a user identifier (UID) of zero is the superuser, regardless of the name of that account; and in systems which implement a role-based security model, any user with the role of superuser (or its synonyms) can carry out all actions of the superuser account. The principle of least privilege recommends that most users and applications run under an ordinary account to perform their work, as a superuser account is capable of making unrestricted and potentially adverse system-wide changes. †

Support

The (often percentage-based) availability and popularity of a particular software, software feature, or device.

Surface Web

The portion of the World Wide Web that is readily available to the general public, and searchable with standard web search engines. It is the opposite of the Deep Web, the part of the Web not indexed by a web search engine. The Surface Web only consists of 10% of the

information that is on the Internet; according to one source, as of 2015, Google's index of the Surface Web contains about 14.5 billion pages. †

Surfing

→ Browsing

Surrogate key

A unique identifier for either an entity in the outside world or an object in a database. The surrogate key is not derived from application data, unlike a natural (or business) key. †

SVG

→ Scalable Vector Graphics

SVN

→ Subversion

Switchover

→ Failover

SXG

→ Signed HTTP Exchange

Symbol

A primitive data type whose instances have a unique human-readable form. Symbols can be used as identifiers. In some programming languages, they are called atoms. Uniqueness is enforced by holding symbols in a symbol table. The most common use of symbols by programmers is for performing language reflection (particularly for callbacks). †

Symfony

A PHP web application framework and set of reusable PHP components and libraries. Symfony was released in 2005. † i symfony.com

SYN

A signal to initiate, establish, or synchronize a connection, as with a communications protocol like the Transmission Control Protocol (TCP).

Synchronized Multimedia Integration Language

A markup language to describe multimedia presentations. SMIL defines markup for timing, layout, animations, visual transitions, and media embedding, among other things. SMIL allows presenting media items such as text, images, video, audio, links to other SMIL presentations, and files from multiple web servers. SMIL markup is written in XML, and has similarities to HTML. SMIL 1.0 became a W3C standard in 1999, SMIL 2.0 in 2001, and SMIL 3.0 in 2008. † i w3.org/TR/SMIL3

Synchronous

Real-time communication in which each party receives (and if necessary, processes and replies to) messages instantly (or as near to instantly as possible). A human example is the telephone—during a telephone call one tends to respond to another person immediately. Many programming commands are also synchronous—for example, when one types in a calculation, the environment will return the result instantly, unless programmed not to. ‡

Syndication

As web syndication, a form of syndication in which content is made available from one website to other sites and services. Most commonly, websites are made available to provide either

summaries or full renditions of a website's recently added content. The term “syndication” may also describe other kinds of content licensing for reuse. †

Syntactic sugar

Syntax within a programming language that is designed to make things easier to read or to express. Syntactic sugar makes the language “sweeter” for human use: Things can be expressed more clearly, more concisely, or in an alternative style that some may prefer. †

Syntax

The set of rules that defines the combinations of symbols that are considered to be a correctly structured document or fragment in a language. This applies both to programming languages, where the document represents source code, and to markup languages, where the document represents data. The syntax of a language defines its surface form. Text-based computer languages are based on sequences of characters, while visual programming languages are based on the spatial layout and connections between symbols (which may be textual or graphical). Documents that are syntactically invalid are said to have a syntax error. When designing the syntax of a language, a designer might start by writing down examples of both legal and illegal strings, before trying to determine general rules from these examples. †

Syntax analysis

→ Parsing

syslog

A standard for message logging. syslog allows separation of the software that generates messages, the system that stores them, and the software that reports and analyzes them. Each message is labeled with a facility code, indicating the software type generating the message, and assigned a severity level. syslog was developed in the 1980s by Eric Allman. †



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

T

Tab An individual navigational GUI element (and associated content) of a tabbed document interface.

Tab icon

→ Favicon

Tabbed Document Interface

A graphical control element that allows multiple documents or panels to be contained within a single window, using tabs as a navigational widget for switching between sets of documents. It is an interface style most commonly associated with web browsers, web applications, text editors, and preference panes, with window managers, especially tiling window managers, being lesser known examples.

Table box

A block-level box that contains a table's internal boxes.

Table formatting context

A formatting context which is used to lay out table elements.

Tabnabbing

A computer exploit and phishing attack, which persuades users to submit their login details and passwords to popular websites by impersonating those sites and convincing the user that the site is genuine. The attack takes advantage of user trust and inattention to detail in regard to tabs, and the ability of browsers to navigate across a page's origin in inactive tabs a long time after the page is loaded. The attack's name was coined in 2010 by Aza Raskin. †

Tabular data

Data that is structured into rows and columns.

Tachyons

A presentational HTML/CSS framework. i tachyons.io

Tag In version control, a textual label that can be associated with a specific revision of a project maintained by a version control system. A tag allows to define a meaningful name to be given to a particular state of a project that is under version control. This label can then be used in place of the revision identifier for commands supported by the version control system. †

In web development, either the start or end tag of an HTML element, like `<p>`, a paragraph's start tag, or ``, an unordered list's end tag. Not to be confused with an element.

→ Message Authentication Code

→ Tracking pixel

Tag Management System

A software designed to help manage the lifecycle of e-marketing tags (sometimes referred to as tracking pixels or web beacons), which are used to integrate third-party software into

digital properties. Tag management systems replace marketing tags with a single container tag and subsequently prioritize and “fire” individual tags as appropriate based on business rules, navigation events, and known data. Typical functionality includes a testing environment (sandbox), an audit trail and version control, the ability to A/B-test different solutions, tag de-duplication, and role-based access to data. †

Tag soup

A pejorative for syntactically or structurally incorrect HTML written for a web page. Because web browsers have historically treated HTML syntax or structural errors leniently, there has been little pressure for web developers to follow published standards, and therefore there is a need for all browser implementations to provide mechanisms to cope with the appearance of “tag soup,” accepting and correcting for invalid syntax and structure where possible. †

Tagging

→ Folksonomy

Tailoring

The developing and refactoring to precise dimensions and needs.

TalkBack

An accessibility service for Android that helped blind and visually impaired users to interact with their devices. TalkBack used spoken words, vibration, and other audible feedback to allow the user to know what is happening on the screen allowing the user to better interact with their device. In 2017, it was replaced by Google with the Android Accessibility Suite. †

tar A computer software utility for collecting many files into one archive file, often referred to as a tarball, for distribution or backup purposes. The name is derived from “tape archive,” as it was originally developed to write data to sequential I/O devices with no file system of their own. The archive data sets created by tar contain various file system parameters, such as name, timestamps, ownership, file access permissions, and directory organization. The command-line utility was first introduced in the Version 7 Unix in 1979, replacing the tp program. †

Tarball

A tar archive file.

TBT

→ Total Blocking Time

Tcl A high-level, general-purpose, interpreted, and dynamic programming language. It was designed with the goal of being simple but powerful. Tcl casts everything into the mold of a command, even programming constructs like variable assignment and procedure definition. Tcl supports multiple programming paradigms, including object-oriented, imperative, and functional programming, as well as procedural styles. † [i tcl-lang.org](http://tcl-lang.org)

TCP

→ Transmission Control Protocol

TDD

→ Test-Driven Development

TDI → Tabbed Document Interface

TDZ

→ Temporal Dead Zone

Tech Lead

→ Technical Lead

Tech Twitter

A colloquial name for the tech-savvy users of the Twitter microblogging and social networking service.

Technical and organizational measure

A system, process, or feature that enables or promotes the secure and legally compliant processing of personal data and personally identifiable information (PII). Technical measures include encryption and pseudonymization, whereas organizational measures include data protection and privacy assessments.

Technical debt

A concept in software development that reflects the implied cost of additional rework caused by choosing an easy (limited) solution now instead of using a better approach that would take longer. As with monetary debt, if technical debt is not repaid, it can accumulate “interest,” making it harder to implement changes. Unaddressed technical debt increases software entropy. Technical debt is not necessarily a bad thing, and sometimes (e.g., as a proof of concept) is required to move projects forward. On the other hand, the “technical debt” metaphor may minimize impact and result in insufficient prioritization of the necessary work to correct it. †

Technical key

→ Surrogate key

Technical Lead

A software or web developer in charge of one or more software projects. Alternative titles include lead programmer, development lead, lead software engineer, software design engineer lead (SDE lead), software development manager, software manager, or lead application developer. When primarily contributing in a high-level enterprise software design role, the title software architect (or similar) is often used. †

Technical Program Manager

An engineering-related role that is responsible for managing technical projects and initiatives.

Technical standard

An established norm or requirement for a repeatable technical task. A technical standard is usually a formal document that establishes uniform engineering or technical criteria, methods, processes, and practices. In contrast, a custom, convention, company product, corporate standard, and so forth that becomes generally accepted and dominant is often called a *de facto* standard. A technical standard may be developed privately or unilaterally, for example by a corporation, regulatory body, military, etc. Standards can also be developed by groups such as trade unions and trade associations. Standards organizations often have more diverse input and usually develop voluntary standards which may become mandatory if adopted by a government (i.e., through legislation) or business contract. †

Technological Protection Measures

→ Digital Rights Management

Telnet

An application protocol used on the Internet or a local area network to provide a bidirectional interactive text-oriented communication facility using a virtual terminal connection. User

data is interspersed in-band with Telnet control information in an 8-bit byte-oriented data connection over the Transmission Control Protocol (TCP). Telnet was developed in 1969 beginning with RFC 15, extended in RFC 855, and standardized as Internet Engineering Task Force (IETF) Internet Standard STD 8, one of the first Internet standards. The name stands for “teletype network.” †

Template

A static or dynamic file used to create or duplicate other files.

The HTML `template` element and the respective use with web components.

Template language

The syntax used by a template processor.

Template processor

A software designed to combine templates with a data model to produce result documents. The language that the templates are written in is known as a template or templating language. A result document may be any kind of formatted output, including documents, web pages, or source code (in source code generation), either in whole or in fragments. A template engine is ordinarily included as a part of a web template system or application framework, and may be used also as a preprocessor or filter. †

Template system

A platform that lets web designers and developers work with web templates to automatically generate custom web pages. This reuses static web page elements while defining dynamic elements based on web request parameters. Web templates support static content, providing basic structure and appearance. Developers can implement templates from content management systems, web application frameworks, and HTML editors. †

Temporal Dead Zone

In JavaScript, an expression for the fact that `let` and `const` cannot be accessed before they are declared, with this resulting in a reference error. The TDZ encourages to always declare a variable before using it.

Temporary storage

Storage that is used for frequently changing data, like caches or buffers.

Ten-Second Rule

A rough limit for user attention. After ten seconds, the probability is deemed to increase that users start to engage in other activities, or abandon a process or site.

Terminal

→ Console

Ternary operator

An operator that takes three arguments. The arguments and result can be of different types. Many programming languages that use C-like syntax feature a ternary operator, `?:`, which defines a conditional expression. In some languages, this operator is referred to as the conditional operator. †

Tesler’s Law

An adage in human-computer interaction stating that every application has an inherent amount of complexity that cannot be removed or hidden. Instead, it must be dealt with, either in product

development or in user interaction, which poses the question of who should be exposed to the complexity. For example, should a software developer add complexity to the software code to make the interaction simpler for the user, or should a user deal with a complex interface so that the software code can be simple? †

Test pyramid

A concept by which unit tests, service tests, and UI tests, when drawn in comparison to their desired number and suspected cost (from many cheap unit tests to few expensive UI tests), form a pyramid. The test automation pyramid is attributed to Mike Cohn, who wrote about it in 2009.

Test-Driven Development

A software development process that relies on the repetition of a short development cycle: Requirements are turned into specific test cases, then the code is improved so that the tests pass. This is opposed to software development that allows code to be added that is not proven to meet requirements. Test-driven development is related to the “test first” programming concepts of Extreme Programming (XP), begun in 1999, but more recently has created more general interest in its own right. †

Testing

An investigation conducted to provide information about the quality of the software product or service under test. Software testing can also provide an objective, independent view of the software to allow the business to appreciate and understand the risks of software implementation. Test techniques include the process of executing a program or application with the intent of finding software bugs (errors or other defects), and verifying that the software product is fit for use. †

TeX

A typesetting or formatting system. TeX is a popular means of typesetting complex mathematical formulae; it has been noted as one of the most sophisticated digital typographical systems. TeX was released in 1978 by Donald Knuth. † [i tug.org](http://tug.org)

Text-to-speech

→ Speech synthesis

Textile

A lightweight markup language that uses a text formatting syntax to convert plain-text into structured HTML markup. Textile is used for writing articles, forum posts, documentation, and any other type of written content published online. It was first released in 2002. † [i textile-lang.com](http://textile-lang.com)

The Onion Router

→ Tor

The Open Group Architecture Framework

A framework that provides an approach for designing, planning, implementing, and governing an enterprise information technology architecture. TOGAF is typically modeled at four levels: Business, Application, Data, and Technology. It relies heavily on modularization, standardization, and already existing, proven technologies and products. TOGAF was developed starting in 1995 by The Open Group. † [i is.gd/0pnYAF](http://is.gd/0pnYAF)

Theme

A preset package containing graphical appearance details. For operating systems, a theme usually comprises a set of shapes and colors for window, window decoration, and graphical control elements. Themes are used to customize the look and feel of software in general, including for websites and apps. †

Third party

A supplier (or service provider) who is not directly controlled by either the seller (first party) nor the buyer (second party) in a transaction. In technology, a third party may be a provider of software (or a computer accessory) which is independent of the supplier and customer of the product or service. †

this

A keyword whose value is determined by how a function is called (runtime binding). It cannot be set by assignment during execution, and it may be different each time the function is called. ES5 introduced the `bind()` method to set the value of a function's `this` regardless of how it is called, and ES2015 introduced arrow functions which do not provide their own `this` binding (it retains the `this` value of the enclosing lexical context). ‡

Thread

The smallest sequence of programmed instructions that can be managed independently by a scheduler, which is typically a part of the operating system. The implementation of threads and processes differs between operating systems, but in most cases a thread is a component of a process. Multiple threads can exist within one process, executing concurrently and sharing resources such as memory, while different processes do not share these resources. †

Three-Click Rule

An unofficial, debunked web design rule concerning the design of website navigation. The Three-Click Rule suggests that a user of a website should be able to find information with no more than three mouse clicks. It is based on the belief that users of a site will become frustrated and often leave if they cannot find the information within three clicks. The rule has explicitly been [called out as false](#) by usability specialists Nielsen Norman Group. †

TIL The abbreviation and Internet slang for “today I learned.”

Time box

A fixed time period.

Time to First Byte

A measurement used as an indication of the responsiveness of a web server or other network resource. TTFB measures the duration from the user or client making an HTTP request to the first byte of the page being received by the client's browser. This time is made up of the socket connection time, the time taken to send the HTTP request, and the time taken to get the first byte of the page. Although sometimes misunderstood as a post-DNS calculation, the original calculation of TTFB in networking always includes network latency in measuring the time it takes for a resource to begin loading. †

Time to Interactive

A non-standardized web performance “progress” metric defined as the point in time when the last long task finished and was followed by five seconds of network and main thread inactivity. TTI, proposed by the Web Incubator Community Group (WICG) in 2018, is intended to provide

a metric that describes when a page or application contains useful content and the main thread is idle and free to respond to user interactions, including having event handlers registered. ‡

Time to Live

A mechanism that limits the lifespan or lifetime of data in a computer or network. TTL may be implemented as a counter or timestamp attached to or embedded in the data. Once the prescribed event count or timespan has elapsed, data is discarded or revalidated. In computer networking, TTL prevents a data packet from circulating indefinitely. In computing applications, TTL is commonly used to improve the performance and manage the caching of data. †

Time-Based One-Time Password

A computer algorithm that generates a one-time password (OTP) which uses the current time as a source of uniqueness. An extension of the HMAC-based One-time Password algorithm (HOTP), it has been adopted as Internet Engineering Task Force (IETF) standard RFC 6238. TOTP is the cornerstone of Initiative for Open Authentication (OATH), and is used in a number of two-factor authentication (2FA) systems. †

Timed text

The presentation of text media in synchrony with other media, such as audio and video. †

Timestamp

A sequence of characters or encoded information identifying when a certain event occurred, usually giving date and time of day, sometimes accurate to a small fraction of a second. The term derives from rubber stamps used in offices to stamp the current date, and sometimes time, in ink on paper documents, to record when a document was received. †

tink

An experimental package manager for the JavaScript programming language. [i github.com/npm/tink](https://github.com/npm/tink)

Tiny integer

An integral data type of 8 bits, with a signed range from -128 to 127, and an unsigned range from 0 to 255.

Tizen

A Linux-based mobile operating system backed by the Linux Foundation but developed and used primarily by Samsung. The project was originally conceived as an HTML-based platform for mobile devices to succeed MeeGo. Samsung merged its previous Linux-based OS effort, Bada, into Tizen, and has since used it primarily on platforms such as wearable devices and smart TVs. Tizen was first released in 2012. † [i tizen.org](https://tizen.org)

TL → Technical Lead

TLD

→ Top-level domain

TLS → Transport Layer Security

TLS Certificate Status Request extension

→ OCSP stapling

TMS

→ Tag Management System

To-do

→ Todo

Toast

A pop-up notification UI element. [i github.com/jackbsteinberg/std-toast](https://github.com/jackbsteinberg/std-toast)

Todo

A task to be done. “Todo,” in various capitalizations, is also used as a keyword in code and documentation to point to work to be done or redone.

TOFU

→ Trust on First Use

TOGAF

→ The Open Group Architecture Framework

Token

→ Access token

Tokenization

The process of substituting a sensitive data element with a non-sensitive equivalent, referred to as a token, that has no extrinsic or exploitable meaning or value. The token is a reference (i.e., identifier) that maps back to the sensitive data through a tokenization system. †

TOM

→ Technical and organizational measure

Tom’s Obvious, Minimal Language

A configuration file format that is intended to be easy to read and write due to obvious semantics which aim to be minimal, and that is designed to map unambiguously to a dictionary. TOML was released in 2013 by Tom Preston-Werner. † [i github.com/toml-lang/toml](https://github.com/toml-lang/toml)

Tomcat

An implementation of Java servlets, JavaServer Pages, Java Expression Language, and Web-Socket technologies. Tomcat provides a “pure Java” HTTP web server environment in which Java code can run. It was first released in 1999. † [i tomcat.apache.org](https://tomcat.apache.org)

TOML

→ Tom’s Obvious, Minimal Language

Tooling

All the software used in the development process. The term “tooling” is often used particularly to refer to CLI tools and scripts with which parts of a workflow are being supported or automated.

Top-level domain

One of the domains at the highest level in the hierarchical Domain Name System of the Internet. The top-level domain names are installed in the root zone of the name space. For all domains in lower levels, it is the last part of the domain name, that is, the last label of a fully qualified domain name. For example, in the domain name “example.com”, the top-level domain is “com”. Responsibility for the management of most top-level domains is delegated to specific organizations by the Internet Corporation for Assigned Names and Numbers (ICANN), which operates the Internet Assigned Numbers Authority (IANA) and is in charge of maintaining the DNS root zone. †

Top-posting

A posting style in which the reply precedes the quoted original message. †

TOP500

A project that ranks and details the 500 most powerful non-distributed computer systems in the world. The TOP500 project was started in 1993 and publishes an updated list of the supercomputers twice a year. † i top500.org

Tor A project, software, and network for enabling anonymous communication. The name is derived from an acronym for the original software project name “The Onion Router.” Tor directs Internet traffic through a free, worldwide, volunteer overlay network consisting of more than 7,000 relays to conceal a user’s location and usage from anyone conducting network surveillance or traffic analysis. Using Tor makes it more difficult to trace Internet activity to the user. Tor’s intended use is to protect the personal privacy of its users, as well as their freedom and ability to conduct confidential communication by keeping their Internet activities unmonitored. Tor does not prevent an online service from determining when it is being accessed through Tor. Tor protects a user’s privacy, but does not hide that someone is using Tor. Tor was first released in 2002. † i torproject.org

Tor Browser

A cross-platform web browser and the flagship product of the Tor Project. It was created as the Tor Browser Bundle by Steven J. Murdoch and announced in 2008. The Tor Browser consists of a modified Firefox ESR web browser, the TorButton, TorLauncher, NoScript, and HTTPS Everywhere Firefox extensions, and the Tor proxy. Users can run the Tor Browser from removable media. †

Tor network

→ Tor

Tor Project

→ Tor

Total Blocking Time

A performance metric measuring the time that a web page is unresponsive to user input. It is calculated by adding the blocking portions of long tasks between First Contentful Paint (FCP) and Time to Interactive (TTI).

TOTP

→ Time-Based One-Time Password

TPM

→ Technical Program Manager

→ Technological Protection Measures

Tracer code

A concept from *The Pragmatic Programmer*, the developing of skeleton functionality that can serve as a proof of concept but also remain part of the later software. “Tracer code,” or “code as tracer bullets,” is a term borrowed from military shooting with brightly-colored tracer ammunition. Tracer code is different from prototyping, whose code may be abandoned.

Tracing

A specialized use of logging to record information about a program’s execution. This information is typically used by programmers for debugging purposes, and additionally, depending on the type and detail of information contained in a trace log, by experienced system

administrators or technical support personnel and by software monitoring tools to diagnose common problems with software. Tracing is a cross-cutting concern. There is not always a clear distinction between tracing and other forms of logging, except that the term “tracing” is almost never applied to logging that is a functional requirement of a program. †

Tracking

→ Letter spacing

→ Web tracking

Tracking pixel

One of various techniques used on web pages and email to unobtrusively (usually invisibly) allow for checking that a user has accessed some content. Tracking pixels are typically used by third parties to monitor the activity of users of a website for the purpose of web analytics or page tagging. They can also be used for email tracking. Using such pixels, companies and organizations can track the online behavior of web users. At first, the companies doing such tracking were mainly advertisers and web analytics companies; later social media sites also started to use the same tracking techniques, for instance through the use of buttons which act as tracking beacons. †

Trade

→ Craft

Transclusion

The inclusion of part or all of an electronic document into one or more other documents by hypertext reference. Transclusion is usually performed when the referencing document is displayed, and is normally automatic and transparent to the end user. The result of transclusion is a single integrated document made of parts assembled dynamically from separate sources, possibly stored on different computers in disparate places. †

Transcompiler

→ Transpiler

Transcreation

A concept used in the field of translation studies to describe the process of adapting a message from one language to another, while maintaining its intent, style, tone, and context. A successfully transcreated message evokes the same emotions and carries the same implications in the target language as it does in the source language. Transcreation is related to the concept of localization, which similarly involves comprehensively adapting a translated text for the target audience. Transcreation highlights the translator’s creative role. †

Transcript

A text version of audio contents that is provided for and used by people who are not currently able to process audio information, who are hard of hearing, or who are deaf.

Transmission Control Protocol

One of the main protocols of the Internet protocol suite. TCP originated in the initial network implementation where it complemented the Internet Protocol (IP), which is why the entire suite is commonly referred to as TCP/IP. It provides reliable, ordered, and error-checked delivery of a stream of octets (bytes) between applications running on hosts communicating via an IP network. Major Internet applications such as the World Wide Web, email, remote

administration, and file transfer rely on TCP. SSL/TLS often runs on top of TCP. TCP is connection-oriented, and a connection between client and server is established (passive open) before data can be sent. Three-way handshake (active open), retransmission, and error detection add to its reliability, though they also lengthen latency. TCP was conceived in 1974.

†

Transpiler

A type of compiler that takes the source code of a program written in a programming language as its input and produces an equivalent source code in the same or a different programming language. Such a source-to-source compiler translates between programming languages that operate at approximately the same level of abstraction, while a traditional compiler translates from a higher level programming language to a lower level programming language. †

Transport Layer Security

A cryptographic protocol designed to provide communications security over a computer network. Several versions of the TLS (and SSL) protocols find widespread use in applications such as web browsing, email, instant messaging, and voice over IP (VoIP). Websites can use TLS to secure all communications between their servers and web browsers. The TLS protocol aims primarily to provide privacy and data integrity between two or more communicating computer applications. TLS was first specified in 1999. †

Travis CI

A continuous integration service used to build and test software projects hosted on GitHub and Bitbucket. Travis CI was founded in 2011. † [i travis-ci.com](https://travis-ci.com)

Tree-shaking

A dead code elimination technique that is applied when optimizing code written in ECMAScript dialects like JavaScript, TypeScript, or Dart into a single bundle that is loaded by a web browser. Rather than eliminating code that can never be executed, tree-shaking starts from entry point and includes only the code that is guaranteed to be executed. Tree-shaking is also described as “live code inclusion.” †

Triadic colors

A color scheme that uses three colors equally spaced around the color wheel. Triadic colors tend to be vibrant, even when using pale or unsaturated versions of hues, offering a higher degree of contrast while at the same time retaining color harmony. The primary colors are an example of a triadic color scheme. †

Trident

A proprietary browser engine for the Microsoft Windows version of Internet Explorer, developed by Microsoft. Trident was first introduced with the release of Internet Explorer version 4.0 in 1997; it has been steadily upgraded and remains in use today. For versions 7 and 8 of Internet Explorer, Microsoft made significant changes to the Trident layout engine to improve compliance with web standards and add support for new technologies. In the Edge browser, Trident was superseded by its fork, EdgeHTML. †

TrueType

An outline font standard developed by Apple in the late 1980s as a competitor to Adobe’s Type 1 fonts used in PostScript. TrueType has become the most common format for fonts on the classic Mac OS, macOS, and Microsoft Windows operating systems. The primary strength of

TrueType was originally that it offered font developers a high degree of control over precisely how their fonts were displayed, right down to particular pixels, at various font sizes. †

Trust on First Use

A security model used by client software which needs to establish a trust relationship with an unknown or not-yet-trusted endpoint. In a TOFU model, the client will try to look up the endpoint's identifier, usually some kind of public key, in its local trust database. If no identifier exists yet for the endpoint, the client software will either prompt the user to determine if the client should trust the identifier, or it will trust the identifier which was given and record the trust relationship into its trust database. If a different identifier is received in subsequent connections to the endpoint the client software will consider it to be untrusted. The TOFU approach can be used when connecting to arbitrary or unknown endpoints which do not have a trusted third party, such as a certificate authority. †

Trust Upon First Use

→ Trust on First Use

Trusted Types

A method to protect against cross-site scripting (XSS) attacks. Trusted Types allow to set certain policies for a browser to enforce, thereby avoiding known DOM XSS sinks. [i is.gd/FjarXK](https://is.gd/FjarXK)

TrustRank

An algorithm that conducts link analysis to separate useful web pages from spam and helps search engine rank pages in SERPs (Search Engine Results Pages). It is a semi-automated process which means that it needs some human assistance in order to function properly. Search engines have many different algorithms and ranking factors that they use when measuring the quality of web pages, including TrustRank. †

try → try...catch

try...catch

A particular exception handling statement that marks a block of statements to try and specifies a response should an exception be thrown. try can also be accompanied by a finally statement. †

TTF

→ TrueType

TTFB

→ Time to First Byte

TTI → Time to Interactive

TTL

→ Time to Live

TTS

→ Text-to-speech

TUFU

→ Trust Upon First Use

Turbo

→ Hotwire

→ Turbo mode

→ Turbo pages

Turbo mode

A data saving mode in the Opera web browser promising up to 50% data savings. Turbo mode was removed in 2019.

Turbo pages

A website publishing technology based on feed syndication, developed by Yandex. Turbo pages were introduced in 2017. [i tech.yandex.com/turbo](http://tech.yandex.com/turbo)

Turing completeness

A system of data-manipulation rules (such as a computer's instruction set, a programming language, or a cellular automaton) that can be used to simulate any Turing machine. This means that this system is able to recognize or decide other data-manipulation rule sets. Turing completeness is used as a way to express the power of such a data-manipulation rule set. Virtually all programming languages today are Turing-complete. The concept is named after English mathematician and computer scientist Alan Turing. †

Two-factor authentication

A type, or subset, of multi-factor authentication. Two-factor authentication is a method of confirming users' claimed identities by using a combination of two different factors: 1) something they know, 2) something they have, or 3) something they are. An example is the withdrawing of money from an ATM; only the correct combination of a bank card (something the user possesses) and a PIN (something the user knows) allows the transaction to be carried out. †

TXT

A text resource record in the Domain Name System (DNS). †

Type

An attribute of data which tells the compiler or interpreter how the data is intended to be used. Most programming languages support basic data types of integer numbers (of varying sizes), Floating-point numbers (which approximate real numbers), characters, and Booleans. A data type constrains the values that an expression, such as a variable or a function, might take. This data type defines the operations that can be done on the data, the meaning of the data, and the way values of that type can be stored. A data type provides a set of values from which an expression (i.e., variable, function, etc.) may take its values. †

Type coercion

→ Type conversion

Type conversion

A way of changing an expression from one data type to another. An example would be the conversion of an integer value into a floating-point value or its textual representation as a string, and vice versa. Type conversions can take advantage of certain features of type hierarchies or data representations. Two important aspects of a type conversion are whether it happens implicitly (automatically) or explicitly, and whether the underlying data representation is converted from one representation into another, or a given representation is merely reinterpreted as the representation of another data type. In general, both primitive and compound data types can be converted. †

Type design

The art and process of designing typefaces. Type design is often used synonymously with the

term “font design”; technically, font design is the rendering of a typeface design into an entire available family of keyboardable characters, while typeface design is the shaping of individual glyphs, albeit with an eye to the eventual incorporation as a font. †

Type I error

→ False positive

Type II error

→ False negative

Type system

A set of rules that assigns a type property to the various constructs of a computer program, such as variables, expressions, functions, or modules. These types formalize and enforce the otherwise implicit categories the programmer uses for algebraic data types, data structures, or other components. The main purpose of a type system is to reduce possibilities for bugs in computer programs by defining interfaces between different parts of a computer program, and then checking that the parts have been connected in a consistent way. This checking can happen statically (at compile time), dynamically (at run time), or as a combination of both. †

Typeface

The overall design of lettering, whose design can include variations, such as extra bold, bold, regular, light, italic, condensed, extended, etc. Each of these variations of the typeface is a font. Every typeface is a collection of glyphs, each of which represents an individual letter, number, punctuation mark, or other symbol. A typeface is not to be confused with a font; before the advent of digital typography and desktop publishing, the two terms had more clearly understood meanings. †

TypeScript

A programming language developed and maintained by Microsoft. TypeScript is a strict syntactical superset of JavaScript, and adds optional static typing to the language. TypeScript is designed for the development of large applications and transcompiles to JavaScript. As TypeScript is a superset of JavaScript, existing JavaScript programs are also valid TypeScript programs. TypeScript may be used to develop JavaScript applications for both client- and server-side execution (as with Node.js or Deno). The TypeScript compiler is itself written in TypeScript and compiled to JavaScript. TypeScript was first released in 2012. † [i typescriptlang.org](https://www.typescriptlang.org)

TYPO3

A web content management system written in PHP. TYPO3 can run on several web servers, such as Apache, NGINX, or IIS, on top of many operating systems, among them Linux, Microsoft Windows, FreeBSD, macOS, and OS/2. TYPO3 is, along with WordPress, Drupal, and Joomla, one of the most popular content management systems worldwide. It was first released in 1998. † [i typo3.org](https://typo3.org)

Typography

The art and technique of arranging type to make written language legible, readable, and appealing when displayed. The arrangement of type involves selecting typefaces, point sizes, line lengths, line spacing (leading), and letter spacing (tracking), and adjusting the space between pairs of letters (kerning). Typography is also applied to the style, arrangement, and appearance of the letters, numbers, and symbols created by the process. Type design is a closely related craft, sometimes considered part of typography; most typographers do not design

typefaces, and some type designers do not consider themselves typographers. Typography also may be used as a decorative device, unrelated to communication of information. Until the Digital Age, typography was a specialized occupation. †



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

U

UA → User agent

UA string

→ User agent string

UAAG

→ User Agent Accessibility Guidelines

UAT

→ User acceptance testing

UCD

→ User-Centered Design

UDD

→ User-Driven Development

UDJO

→ Using Declarations Just Once

UDP

→ User Datagram Protocol

UDP flood attack

A volumetric denial of service (DoS) attack using the User Datagram Protocol (UDP). A UDP flood attack can be initiated by sending a large number of UDP packets to random ports on a remote host. As a result, the distant host will check for the application listening at that port, find no application listening, and reply with an ICMP “Destination Unreachable” message. For a large number of UDP packets, the victimized system will be forced into sending many ICMP messages, eventually leading it to be unreachable by other clients. †

Uglification

→ Minification

→ Obfuscation

UI → User Interface

UI framework

→ Framework

UI redressing

→ Clickjacking

UIML

→ User interface markup language

UMD

→ Universal Module Definition

UML

→ Unified Modeling Language

undefined

A primitive value automatically assigned to variables that have just been declared, or to formal arguments for which there are no actual arguments. †

Underscore hack

→ Star hack

Unicode

A computing industry standard for the consistent encoding, representation, and handling of text expressed in most of the world's writing systems. The standard is maintained by the Unicode Consortium. Unicode 14.0.0 contains a repertoire of 144,697 characters covering 159 modern and historic scripts, as well as multiple symbol sets and emoji. The character repertoire of the Unicode Standard is synchronized with ISO/IEC 10646, and both are code-for-code identical. † [i unicode.org/standard](https://unicode.org/standard)

Unicode Consortium

A non-profit organization whose primary purpose is to maintain and publish the Unicode Standard which was developed with the intention of replacing existing character encoding schemes which are limited in size and scope, and are incompatible with multilingual environments. The Consortium describes its overall purpose “to enable people around the world to use computers in any language, by providing freely available specifications and data to form the foundation for software internationalization in all major operating systems, search engines, applications, and the World Wide Web.” Unicode's success at unifying character sets has led to its widespread adoption in the internationalization and localization of software. The Unicode Consortium was founded in 1991. † [i unicode.org](https://unicode.org)

Unicode Standard

→ Unicode

Unified Modeling Language

A general-purpose, developmental, modeling language in the field of software engineering that is intended to provide a standard way to visualize the design of a system. The creation of UML was originally motivated by the desire to standardize the disparate notational systems and approaches to software design. It was developed in 1994 and 1995 by Grady Booch, Ivar Jacobson, and James Rumbaugh. † [i uml.org](https://uml.org)

Uniform Resource Characteristic

A string of characters representing the metadata of a Uniform Resource Identifier (URI), a string identifying a web resource. A URC binds a URI's associated Uniform Resource Name (URN), a unique name for a web resource, to its Uniform Resource Locator (URL), the location at which a web resource can be found. URCs were proposed as a specification in the mid-1990s, but were never adopted. †

Uniform Resource Identifier

A string of characters that unambiguously identifies a particular resource. To guarantee uniformity, all URIs follow a predefined set of syntax rules, but also maintain extensibility through a separately defined hierarchical naming scheme (e.g., “https://”). An identification as with URIs enables interaction with representations of the resource over a network, typically the World Wide Web, using specific protocols. Schemes specifying a concrete syntax and associated protocols define each URI. The most common form of URI is the Uniform Resource Locator

(URL), frequently referred to informally as a web address. More rarely seen in usage is the Uniform Resource Name (URN). †

Uniform Resource Locator

A reference to a web resource that specifies its location on a computer network and a mechanism for retrieving it. A URL is a specific type of Uniform Resource Identifier (URI), although many people use the two terms interchangeably. URLs occur most commonly to reference web pages (“http”), but are also used for file transfer (“ftp”), email (“mailto”), database access (JDBC), and many other applications. Most web browsers display the URL of a web page above the page in an address bar. A typical URL could have the form “https://www.example.com/contact.html”, which indicates a protocol (“https”), a hostname (“www.example.com”), and a filename (“contact.html”). Uniform Resource Locators were defined in RFC 1738 in 1994 by Tim Berners-Lee, the inventor of the World Wide Web, and the URI Working Group of the Internet Engineering Task Force (IETF). †

Uniform Resource Name

A Uniform Resource Identifier (URI) that uses the “urn” scheme. URNs were originally conceived to be part of a three-part information architecture for the Internet, along with Uniform Resource Locators (URLs) and Uniform Resource Characteristics (URCs), a metadata framework. URNs were conceived as persistent, location-independent identifiers assigned within defined namespaces. Since RFC 3986 in 2005, use of the terms “Uniform Resource Name” and “Uniform Resource Locator” has been deprecated in technical standards in favor of the term “Uniform Resource Identifier” (URI), which encompasses both. †

Uninitialized pointer

→ Uninitialized variable

Uninitialized variable

A variable that is declared but is not set to a definite known value before it is used. It will have some value, but not a predictable one. As such, an uninitialized variable is a programming error and a common source of bugs in software. †

Unique Selling Point

The unique benefit exhibited by a product, service, brand, or company that enables it to stand out from competitors. The USP must be a feature that highlights product benefits that are meaningful to consumers, and it focuses on explicit claims of uniqueness involving an objectively verifiable product attribute or benefit in use. †

Unique Selling Proposition

→ Unique Selling Point

Unique Value Proposition

→ Unique Selling Point

Unit testing

A software testing method by which individual units of source code, sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures, are tested to determine whether they are fit for use. Unit tests are typically automated tests written and run to ensure that a section of an application (known as the “unit”) meets its design and behaves as intended. In procedural programming, a unit could be an entire module, but it is more commonly an individual function or procedure. In

object-oriented programming, a unit is often an entire interface, such as a class, but could be an individual method. †

Universal Access

A component of the Mac OS X operating system, later called Accessibility, that provides computing abilities to people with visual impairment, hearing impairment, or physical disability. † [i apple.com/accessibility/mac](http://apple.com/accessibility/mac)

Universal Cross-Site Scripting

An attack that exploits vulnerabilities in a browser or browser extension (instead of a website or application, as with XSS) in order to run malicious code.

Universal Design

The design of buildings, products, or environments to make them accessible to all people, regardless of age, disability or other factors. The term “universal design” was coined by the architect Ronald Mace to describe the concept of designing all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone, regardless of their age, ability, or status in life. However, it was the work of Selwyn Goldsmith, author of *Designing for the Disabled* (1963), who pioneered the concept of free access for people with disabilities. Goldsmith’s most significant achievement was the creation of the dropped curb—now a standard feature of the built environment. †

Universal Module Definition

A collection of patterns and scripts to help use and compatibility of different JavaScript module loaders. [i github.com/umdjs/umd](http://github.com/umdjs/umd)

Universal selector

A CSS selector (*, which can in certain cases be omitted) that matches any element.

Universally unique identifier

A 128-bit number used to identify information in computer systems. The term globally unique identifier (GUID) is also used, typically in software created by Microsoft. When generated according to the standard methods, UUIDs are for practical purposes unique. Their uniqueness does not depend on a central registration authority or coordination between the parties generating them, unlike most other numbering schemes. While the probability that a UUID will be duplicated is not zero, it is close enough to zero to be negligible. Thus, anyone can create a UUID and use it to identify something with near certainty that the identifier does not duplicate one that has already been, or will be, created to identify something else. †

Universal XSS

→ Universal Cross-Site Scripting

Uniwidth typeface

A typeface where every variation (font) has the same metrics (size of each letter). As a result, changing the variation used, such as using bold or italics, does not change the layout (reflow).

†

Unix/UNIX

A family of multi-tasking, multi-user computer operating systems that derive from the original AT&T Unix, with development starting in the 1970s at Bell Labs. Initially intended for use inside the Bell System, AT&T licensed Unix to outside parties in the late 1970s, leading to a variety of both academic and commercial Unix variants. Unix systems are characterized by a

modular design that is sometimes called the Unix philosophy. Unix distinguishes itself from its predecessors as the first portable operating system: Almost the entire operating system is written in the C programming language, thus allowing Unix to reach numerous platforms. †

Unix philosophy

A set of cultural norms and philosophical approaches to minimalist, modular software development. It is based on the experience of leading developers of the Unix operating system. Early Unix developers were important in bringing the concepts of modularity and reusability into software engineering practice, spawning a “software tools” movement. Over time, the leading developers of Unix established a set of cultural norms for developing software; these norms became as important and influential as the technology of Unix itself, leading to the “Unix philosophy.” The Unix philosophy emphasizes building simple, short, clear, modular, and extensible code that can be easily maintained and repurposed by developers other than its creators. The Unix philosophy favors composability as opposed to monolithic design. † [i is.gd/oOiBbo](https://is.gd/oOiBbo)

UPA

→ Usability Professionals Association

Upstream

In version control, the parent repository, that is, the repository that was used to clone or fork the current work repository.

URC

→ Uniform Resource Characteristic

Urchin Tracking Module

A set of URL parameters used by marketers to track the effectiveness of online marketing campaigns across traffic sources and publishing media. The UTM parameters were introduced by Google Analytics’ predecessor Urchin and, consequently, are supported out-of-the-box by Google Analytics. The UTM parameters include `utm_source`, `utm_medium`, `utm_campaign`, `utm_term`, and `utm_content`. †

URI → Uniform Resource Identifier

URL

→ Uniform Resource Locator

URL encoding

A mechanism for encoding information in a Uniform Resource Identifier (URI) under certain circumstances. Although it is known as URL encoding, it is, in fact, used more generally within the main Uniform Resource Identifier (URI) set, which includes both Uniform Resource Locator (URL) and Uniform Resource Name (URN). As such, it is also used in the preparation of data of the `application/x-www-form-urlencoded` media type, as is often used in the submission of HTML form data in HTTP requests. With URL encoding, when a reserved character has a special meaning in a certain context, and a URI scheme says that it is necessary to use that character for some other purpose, then the character must be percent-encoded. For example, `/` becomes `%2F`. †

URL forwarding

→ Redirect

URL redirection

→ Redirect

URL slug

→ Slug

URN

→ Uniform Resource Name

Usability

The ease of use and learnability of a human-made object such as a tool or device. In software engineering, usability is the degree to which a software can be used by specified consumers to achieve quantified objectives with effectiveness, efficiency, and satisfaction in a quantified context of use. Usability includes methods of measuring usability, such as needs analysis and the study of the principles behind an object's perceived efficiency or elegance. In human-computer interaction and computer science, usability studies the elegance and clarity with which the interaction with a computer program or a website (web usability) is designed. Usability considers user satisfaction and utility as quality components, and aims to improve user experience through iterative design. †

Usability inspection

The name for a set of methods where an evaluator inspects a user interface. This is in contrast to usability testing where the usability of the interface is evaluated by testing it with real users. Usability inspections can generally be used early in the development process by evaluating prototypes or specifications for the system that cannot be tested with users. Usability inspection methods are generally considered to be cheaper to implement than testing with users. They include cognitive walkthroughs (task-specific), heuristic evaluations (holistic), and pluralistic walkthroughs. †

Usability Professionals Association

→ User Experience Professionals Association

Usability testing

A technique used in user-centered interaction design to evaluate a product by testing it with users. This can be seen as an irreplaceable usability practice, since it gives direct input on how real users use the system. Usability testing is concerned with the design intuitiveness of the product, tested with users who have no prior exposure to it. Such testing is paramount to the success of an end product as a fully functioning product that creates confusion among its users may not last as long as one that is easy to use. Usability testing stands in contrast with usability inspection methods that do not directly involve users. †

Usenet

A worldwide distributed discussion system. Usenet was developed from the general-purpose Unix-to-Unix Copy (UUCP) dial-up network architecture. Tom Truscott and Jim Ellis conceived the idea in 1979, and it was established in 1980. Users read and post messages (called articles or posts, and collectively termed news) to one or more categories, known as newsgroups. Usenet resembles a bulletin board system (BBS) in many respects and is the precursor to Internet forums that are widely used today. Discussions are threaded, as with web forums and BBSs, though posts are stored on the server sequentially. The name comes from the term "users network." †

User

A person who utilizes a computer or network service. Users of computer systems and software products often lack the technical expertise required to fully understand how they work. Power users use advanced features of programs, though they are not necessarily capable of computer programming and system administration. Some software products provide services to other systems and have no direct end users. End users are the ultimate human users (also referred to as operators) of a software product. The term is used to abstract and distinguish those who only use the software from the developers of the system, who enhance the software for end users. †

User acceptance testing

→ Acceptance testing

User agent

Software (a software agent) that is acting on behalf of a user, such as a web browser that retrieves, renders, and facilitates user interaction with web content. An email reader is a mail user agent. In many cases, a user agent acts as a client in a network protocol used in communications within a client-server distributed computing system. †

User Agent Accessibility Guidelines

A set of guidelines for user agent developers (such as web browsers and media players) aimed at making user agents accessible to users with disabilities. UAAG 1.0 became a W3C Recommendation in 2002. † i w3.org/TR/UAAG20

User agent sniffing

→ Browser sniffing

User agent string

A characteristic string that lets servers and network peers identify the application, operating system, vendor, or version of the requesting user agent. The common format for web browsers is `User-Agent: Mozilla/5.0 (<system-information>) <platform> (<platform-details>) <extensions>`. ‡

User Datagram Protocol

One of the core members of the Internet protocol suite. The protocol was designed in 1980 by David P. Reed and formally defined in RFC 768. With UDP, computer applications can send messages, in this case referred to as datagrams, to other hosts on an Internet Protocol (IP) network. Prior communications are not required in order to set up communication channels or data paths. UDP is suitable for purposes where error checking and correction are either not necessary or are performed in the application; UDP avoids the overhead of such processing in the protocol stack. Time-sensitive applications often use UDP because dropping packets is preferable to waiting for packets delayed due to retransmission, which may not be an option in a real-time system. †

User Experience

A person's emotions and attitudes about using a particular product, service, or system. UX includes the practical, experiential, affective, meaningful, and valuable aspects of human-computer interaction and product ownership. Additionally, it includes a person's perceptions of system aspects such as utility, ease of use, and efficiency. User experience may be subjective in nature to the degree that it is about individual perception and thought with respect to a

product or system. User experience varies dynamically, constantly modifying over time due to changing usage circumstances. Simplified, user experience is about how a user interacts with and experiences a product. †

User Experience Professionals Association

An organization of domain experts “who research, design, and evaluate the user experience (UX) of products and services.” The UXPA was founded as the Usability Professionals Association in 1991, and changed their name to “User Experience Professionals Association” in 2012. [i uxpa.org](http://uxpa.org)

User Interface

The space of interaction between humans and machines. The goal of this interaction is to allow effective operation and control of the machine from the human end, whilst the machine simultaneously feeds back information that aids the operators’ decision-making process. Examples of this broad concept of user interfaces include the interactive aspects of computer operating systems, hand tools, heavy machinery operator controls, and process controls. The design considerations applicable when creating user interfaces are related to or involve such disciplines as ergonomics and psychology. Generally, the goal of user interface design is to produce a user interface which makes it easy, efficient, and enjoyable (user-friendly) to operate a machine in the way which produces the desired result. †

User interface markup language

A markup language that renders and describes graphical user interfaces and controls. Many of these markup languages are dialects of XML and are dependent upon a pre-existing scripting language engine, usually a JavaScript engine, for rendering of controls and extra scriptability. The concept of user interface markup languages is primarily based upon the desire to prevent the “re-invention of the wheel” in the design, development, and function of a user interface. The typical user interface markup language solidifies often re-used program or script code in the form of markup, making it easier to focus upon design of a user interface in an understandable dialect as opposed to focus on function. Examples for UIMLs include XAML, XUL, and SVG. †

User JavaScript

→ Userscript

User story

An informal, natural language description of one or more features of a software system. User stories are often written from the perspective of an end user or user of a system. They are often recorded on index cards, on Post-it notes, or in project management software. Depending on the project, user stories may be written by various stakeholders including clients, users, managers, or development team members. †

User testing

→ Usability testing

User-Centered Design

A framework of processes in which usability goals, user characteristics, environment, tasks and workflow of a product, service, or process are given extensive attention at each stage of the design process. User-centered design can be characterized as a multi-stage problem-solving process that not only requires designers to analyze and envision the way users are likely to

consume a product, but also to validate their assumptions with regard to the user behavior in real world tests. These tests are conducted with or without actual users during each stage of the process ranging from requirements to pre-production to post-production, ensuring that development proceeds with the user as the center of focus. Such testing is necessary as it is often difficult for the designers of a product to understand intuitively what a first-time user of their design experiences, and what each user's learning curve may look like. User-centered design is considered to lead to increased product usefulness and usability. †

User-Driven Development

→ User-Centered Design

Userscript

A program, usually written in JavaScript, for modifying web pages to augment browsing. Uses include setting up keyboard shortcuts, adding features to sites, or enhancing the browsing history. Userscripts are often referred to as Greasemonkey scripts, named after the original userscript manager for the Firefox browser. †

Using Declarations Just Once

A CSS methodology to use each declaration only one time (per section, component, or file, within media query bounds). UDJO helps limit repetition (Don't Repeat Yourself) and reduces the need and use for custom properties (CSS variables). UDJO was first mentioned in 2008. [i meiert.com/en/blog/dry-css](http://meiert.com/en/blog/dry-css)

USP

→ Unique Selling Point

→ Unique Selling Proposition

UTF-8

A variable-width character encoding capable of encoding all 1,112,064 valid code points in Unicode using one to four 8-bit bytes. The encoding is defined by the Unicode Standard, and was originally designed by Ken Thompson and Rob Pike. The name is derived from Unicode (or Universal Coded Character Set) Transformation Format 8-Bit. UTF-8 was designed for backward-compatibility with ASCII. Since 2009, UTF-8 has been the dominant encoding (of any kind, not just of Unicode encodings) for the World Wide Web (and declared mandatory "for all things" by WHATWG) and as of January 2020 accounts for 94.8% of all web pages (some of which are simply ASCII, as it is a subset of UTF-8) and 96% of the top 1,000 highest ranked web pages. †

UTF-16

A character encoding capable of encoding all valid code points of Unicode. The encoding is variable-length, as code points are encoded with one or two 16-bit code units. UTF-16 arose from an earlier fixed-width 16-bit encoding known as UCS-2 (for 2-byte Universal Character Set) once it became clear that more than 216 code points were needed. UTF-16 is used internally by systems such as Microsoft Windows, Java, and JavaScript. It is also often used for plain-text as well as for word-processing data files on Windows. It is rarely used for files on Unix/Linux or macOS. It never gained popularity on the Web, where UTF-8 is dominant. †

UTF-32

A fixed-length encoding used to encode Unicode code points that uses exactly 32 bits (4

bytes) per code point. UTF-32 is a fixed-length encoding, in contrast to all other Unicode transformation formats, which are variable-length encodings. Each 32-bit value in UTF-32 represents one Unicode code point and is exactly equal to that code point's numerical value. The main advantage of UTF-32 is that the Unicode code points are directly indexed. Finding the *n*th code point in a sequence of code points is a constant time operation. In contrast, a variable-length code requires sequential access to find the *n*th code point in a sequence. The main disadvantage of UTF-32 is that it is space-inefficient, using 4 bytes per code point, including 11 bits that are always zero. †

Utility class

In software development, a special case of a helper class in which the methods are all static. †

→ Helper class

UTM

→ Urchin Tracking Module

UUID

→ Universally unique identifier

UVP

→ Unique Value Proposition

UX → User Experience

UXPA

→ User Experience Professionals Association

UXSS

→ Universal XSS



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

V

Validation

The process of ensuring data or code have undergone cleansing to ensure they have quality, that is, that they are both correct and useful. Validation uses routines, often called validation rules, validation constraints, or check routines, that check for the correctness, meaningfulness, and security of the data and code that are input to the system. The rules may be implemented through the automated facilities of a dictionary, or by the inclusion of explicit validation logic.

†

Validator

A software used to check the validity or syntactical correctness of a fragment of code or document. The term is commonly used in the context of validating HTML, CSS, or XML documents like RSS feeds, though a validator can be used for any defined format or language.

†

Value

The representation of some entity that can be manipulated by a program. The members of a type are the values of that type. In declarative (high-level) languages, values have to be referentially transparent. †

Value-Driven Design

A systems engineering strategy based on microeconomics which enables multidisciplinary design optimization. The terms “value-driven design” and “value-centric design” are used interchangeably. The essence of these strategies is that design choices are made to maximize system value rather than to meet performance requirements. VDD is similar to the value-driven approach of agile software development, where a project’s stakeholders prioritize their high-level needs (or system features) based on the perceived business value each would deliver. †

Variable

A storage address (identified by a memory address) paired with an associated symbolic name, which contains some known or unknown quantity of information referred to as a value. The variable name is the usual way to reference the stored value, in addition to referring to the variable itself, depending on the context. This separation of name and content allows the name to be used independently of the exact information it represents. The identifier in computer source code can be bound to a value during runtime, and the value of the variable may thus change during the course of program execution. †

→ Custom property

Variable font

As OpenType variable fonts, an extension to the OpenType specification introduced in OpenType 1.8. In 2016, Adobe, Apple, Google, and Microsoft announced the technology, which allows a single font file to store a continuous range of design variants. One of the key benefits

of variable fonts is that they can significantly reduce the combined size of font data whenever multiple styles are in use. † i v-fonts.com

Variable scope

→ Scope

VBA

→ Visual Basic for Applications

VDD

→ Value-Driven Design

Vector image

An image defined in terms of 2D points, which are connected by lines and curves to form polygons and other shapes. Each of these points has a definite position on the x- and y-axis of the work plane and determines the direction of the path; further, each path may have various properties including values for stroke color, shape, curve, thickness, and fill. Vector graphics are commonly found today in the SVG, EPS, PDF, and AI graphic file formats and are intrinsically different from the more common raster graphics file formats such as GIF, JPEG, PNG, and MPEG4. †

Velocity

A metric for work done, which is often used in agile software development. The velocity metric is used for planning Sprints and measuring team performance, though there is no evidence that measuring velocity improves planning effectiveness or team performance. †

Vendor prefix

A marker for experimental or non-standard CSS properties and JavaScript APIs, so that developers can experiment with new ideas while—in theory—preventing their experiments from being relied upon and then breaking web developers' code during the standardization process. Developers should wait to include unprefixed properties until browser behavior is standardized. For CSS, the major browsers use the prefixes `-webkit-` (Chrome, Safari, newer versions of Opera, almost all iOS browsers including Firefox for iOS; essentially, any WebKit-based browser), `-moz-` (Firefox), `-o-` (old pre-WebKit versions of Opera), and `-ms-` (Internet Explorer and Edge). These are similar for API prefixes. ‡

Verification

Verification is intended to check that a product, service, or system (or portion thereof) meets a set of design specifications. In the development phase, verification procedures involve performing special tests to model or simulate a portion, or the entirety, of a product, service, or system, then performing a review or analysis of the modeling results. In the post-development phase, verification procedures involve regularly repeating tests devised specifically to ensure that the product, service, or system continues to meet the initial design requirements, specifications, and regulations as time progresses. †

Version control

The management of changes to documents, computer programs, large websites, and other collections of information. Changes are usually identified by a number or letter code, termed a revision number, revision level, or just revision. Each revision is associated with a timestamp and the person making the change. Revisions can be compared, restored, and with some types of files, merged. Today, the most capable (as well as complex) version control systems are those

used in software development, where a team of people may concurrently make changes to the same files. †

Versioning

The process of assigning either unique version names or unique version numbers to unique states of computer software. Within a given version number category (major, minor, patch), these numbers are generally assigned in increasing order and correspond to new developments in the software. At a fine-grained level, version control is often used for keeping track of incrementally different versions of information. Modern computer software is often tracked using two different software versioning schemes—an internal version number that may be incremented many times in a single day, such as a revision control number, and a release version that typically changes far less often. †

Vertical scaling

An increase in the capabilities of an individual resource, e.g., by equipping a machine with a faster CPU, more memory, or more disk space.

- vi A screen-oriented text editor originally created for the Unix operating system. The portable subset of the behavior of vi and programs based on it, and the ex editor language supported within these programs, is described by the Single Unix Specification and POSIX. The original code for vi was written in 1976 by Bill Joy, as the visual mode for the ex line editor. The name “vi” is derived from the shortest unambiguous abbreviation for the ex command `visual`, which switches the ex line editor to visual mode. †

Viewport

A polygon viewing region in computer graphics, and in browser, the visible portion of the entire document. If the document is larger than the viewport, the user can shift the viewport around by scrolling. †

Vim

A clone, with additions, of the vi text editor program for Unix. Vim is designed for use both from a command-line interface and as a standalone application in a graphical user interface. It was released in 1991 by Bram Moolenaar. † i vim.org

Virtual inheritance

A C++ technique that ensures only one copy of a base class’s member variables are inherited by grandchild-derived classes. Without virtual inheritance, if two classes B and C inherit from a class A, and a class D inherits from both B and C, then D will contain two copies of A’s member variables: one via B, and one via C. These will be accessible independently, using scope resolution. Instead, if classes B and C inherit virtually from class A, then objects of class D will contain only one set of the member variables from class A. This feature is most useful for multiple inheritance, as it makes the virtual base a common subobject for the deriving class and all classes that are derived from it. †

Virtual LAN

A broadcast domain that is partitioned and isolated in a computer network at the data link layer (OSI model layer 2). VLANs work by applying tags to network frames and handling these tags in networking systems, creating the appearance and functionality of network traffic that is physically on a single network but acts as if it was split between separate networks. In this way, VLANs can keep network applications separate despite being connected to the same

physical network, and without requiring multiple sets of cabling and networking devices to be deployed. †

Virtual Machine

An emulation of a computer system. Virtual machines are based on computer architectures and provide functionality of a physical computer. Their implementations may involve specialized hardware, software, or a combination. There are different kinds of virtual machines, each with different functions: System virtual machines (also termed full virtualization VMs) provide a substitute for a real machine; process virtual machines, on the other hand, are designed to execute computer programs in a platform-independent environment. †

Virtual Machine Manager

→ Hypervisor

Virtual Machine Monitor

→ Hypervisor

Virtual Private Cloud

An on-demand configurable pool of shared computing resources allocated within a public cloud environment, providing a certain level of isolation between the different organizations using the resources. The isolation between one VPC organization and all other users of the same cloud (other VPC organizations as well as other public cloud users) is usually achieved through allocation of a private IP subnet and a virtual communication construct (such as a VLAN or a set of encrypted communication channels) per user. In a VPC, the respective isolation is accompanied with a VPN function that secures remote access of the organization to VPC resources. A VPC is most commonly used in the context of cloud Infrastructure as a Service (IaaS). †

Virtual Private Network

An extension of a private network across a public network, enabling users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network. Applications running on a computing device (e.g., a desktop computer, laptop, or smartphone) across a VPN may therefore benefit from the functionality, security, and management of the private network. Encryption is a common, though not an inherent, part of a VPN connection. †

Virtual Reality

A simulated experience that can be similar to or completely different from the real world. Applications of virtual reality can include entertainment (i.e., video games) and educational purposes (i.e., medical or military training). Other, distinct types of VR style technology include augmented reality and mixed reality. Currently standard virtual reality systems use either virtual reality headsets or multi-projected environments to generate realistic images, sounds, and other sensations that simulate a user's physical presence in a virtual environment. †

Virtualization

The act of creating a virtual (rather than actual) version of something, including virtual computer hardware platforms, storage devices, and computer network resources. Virtualization began in the 1960s, as a method of logically dividing the system resources provided by mainframe computers between different applications. Since then, the meaning of the term has broadened. †

Virtualizer

→ Hypervisor

Visual Basic for Applications

An implementation of Microsoft's event-driven programming language Visual Basic 6, which was declared legacy in 2008, and its associated integrated development environment (IDE). The VBA programming language was upgraded in 2010 with the introduction of Visual Basic for Applications 7 in Microsoft Office applications. Visual Basic for Applications enables building user-defined functions (UDFs), automating processes, and accessing Windows API and other low-level functionality through dynamic-link libraries (DLLs). It supersedes and expands on the abilities of earlier application-specific macro programming languages such as Word's WordBASIC. VBA was first released in 1993. †

Visual formatting model

A model for how user agents take the document tree, and process and display it for visual media. This includes continuous media such as a computer screen, and paged media such as a book or document printed by browser print functions. In the visual formatting model, each element in the document tree generates zero or more boxes according to the box model. The layout of these boxes is governed by box dimensions and type, positioning scheme (normal flow, float, and absolute positioning), relationships between elements in the document tree, and external information (e.g., viewport size, intrinsic dimensions of images, etc.). ‡

Visual impairment

A decreased ability to see to a degree that causes problems not fixable by usual means, such as glasses. Some classifications also include those who have a decreased ability to see because they do not have access to glasses or contact lenses. Visual impairment is often defined as a best corrected visual acuity of worse than either 20/40 or 20/60. The term "blindness" is used for complete or nearly complete vision loss. †

Visual regression testing

Usually automated testing for unintended visual changes (regressions) on a website or app.

Visual Studio Code

A cross-platform source code editor developed by Microsoft. VS Code includes support for debugging, embedded Git control, syntax highlighting, intelligent code completion, snippets, and code refactoring. It is highly customizable, allowing users to change theme, keyboard shortcuts, and preferences, and to install extensions that add additional functionality. VS Code was first released in 2015. † i code.visualstudio.com

Vishing

→ Voice phishing

VLAN

→ Virtual LAN

VM → Virtual Machine**VMM**

→ Virtual Machine Manager

→ Virtual Machine Monitor

Voice over IP

A method and group of technologies for the delivery of voice communications and multimedia

sessions over Internet Protocol (IP) networks. The steps and principles involved in originating VoIP telephone calls are similar to traditional digital telephony and involve signaling, channel setup, digitization of the analog voice signals, and encoding. Instead of being transmitted over a circuit-switched network, the digital information is packetized and transmission occurs as IP packets over a packet-switched network. †

Voice phishing

A form of criminal phone fraud, using social engineering over the telephone system to gain access to private personal and financial information for the purpose of financial reward. Voice phishing is sometimes referred to as “vishing,” a portmanteau of “voice” and “phishing.” †

VoiceOver

A screen reader built into Apple’s macOS, iOS, tvOS, and watchOS operating systems. By using VoiceOver, the user can access their Mac or iOS device based on spoken descriptions and, in the case of the Mac, the keyboard. The feature is designed to increase accessibility for blind and low-vision users, as well as for users with dyslexia. † [i apple.com/accessibility/mac/vision](https://www.apple.com/accessibility/mac/vision)

VoiceXML

A digital document standard for specifying interactive media and voice dialogs between humans and computers. VoiceXML is used for developing audio and voice response applications, such as banking systems and automated customer service portals. VoiceXML applications are developed and deployed in a manner analogous to how a web browser interprets and visually renders the HTML it receives from a web server. VoiceXML documents are interpreted by a voice browser and in common deployment architectures, users interact with voice browsers via the public switched telephone network (PSTN). The VoiceXML document format is based on Extensible Markup Language (XML). VoiceXML is a standard developed by the World Wide Web Consortium (W3C), whose first version was released in 1999. † [i w3.org/TR/voicexml20](https://www.w3.org/TR/voicexml20)

Void element

An element from HTML, SVG, or MathML that cannot have any child nodes (i.e., nested elements or text nodes). For HTML, the void elements are `<area>`, `<base>`, `
`, `<col>`, `<embed>`, `<hr>`, ``, `<input>`, `<link>`, `<meta>`, `<param>`, `<source>`, `<track>`, and `<wbr>`. †

VoIP

→ Voice over IP

VPC

→ Virtual Private Cloud

VPN

→ Virtual Private Network

VR → Virtual Reality

VRT

→ Visual regression testing

VS Code

→ Visual Studio Code

Vue → Vue.js

Vue.js

A model-view-viewmodel JavaScript framework for building user interfaces and single-page

applications. Vue.js features an incrementally adoptable architecture that focuses on declarative rendering and component composition. Advanced features required for complex applications such as routing, state management, and build tooling are offered via officially maintained supporting libraries and packages, with Nuxt.js as one of the most popular solutions. Vue.js was created in 2014 by Evan You. † i vuejs.org

VuePress

A static site generator based on Vue.js. i vuepress.vuejs.org

Vuex

A state management pattern and library for Vue.js applications. i vuex.vuejs.org



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

W

W3C

→ World Wide Web Consortium

WAF

→ Web Application Firewall

→ Web Application Framework

WAI

→ Web Accessibility Initiative

WAI-ARIA

→ ARIA

WAMP

→ Windows, Apache, MySQL, PHP/Perl/Python

WAN

→ Wide area network

WAP

→ Wireless Application Protocol

WAR

→ Web application archive

Wasm

→ WebAssembly

WaSP

→ Web Standards Project

Waterfall

A breakdown of project activities into linear sequential phases, where each phase depends on the deliverables of the previous one and corresponds to a specialization of tasks. The approach is typical for certain areas of engineering design. In software development, it tends to be among the less iterative and flexible approaches, as progress flows in largely one direction (“downwards” like a waterfall). †

WAU

→ Weekly Active Users

WCAG

→ Web Content Accessibility Guidelines

WCAG Samurai

A group of developers independent of the World Wide Web Consortium (W3C), led by Joe Clark, that from 2006 to 2008 published suggestions, corrections, and extensions to WCAG 1.0.

†

Weak character

A character with vague direction. Examples include European digits, Eastern Arabic-Indic digits, arithmetic symbols, and currency symbols. †

Web 2.0

A term for websites that emphasize user-generated content, ease of use, participatory culture, and interoperability (i.e., compatibility with other products, systems, and devices) for end users. The term was invented by Darcy DiNucci in 1999 and later popularized by Tim O'Reilly and Dale Dougherty at the O'Reilly Media Web 2.0 Conference in late 2004. The concept details only the design and use of websites and does not place any technical demands or specifications. The transition to “Web 2.0” was gradual and, therefore, no precise dates can be given. †

Web Accessibility Initiative

An effort to improve the accessibility of the World Wide Web (WWW) for people with disabilities. People with disabilities may encounter difficulties when using computers generally, but also on the Web. Since people with disabilities often require non-standard devices and browsers, making websites more accessible also benefits a wide range of user agents and devices, including mobile devices, which have limited resources. The World Wide Web Consortium (W3C) launched the Web Accessibility Initiative in 1997 with endorsement by W3C members as well as The White House. It has several working groups and interest groups that work on guidelines, technical reports, educational materials, and other documents that relate to the several different components of web accessibility. † [i w3.org/WAI](http://w3.org/WAI)

Web address

→ URL

Web analytics

The measurement, collection, analysis, and reporting of web data for purposes of understanding and optimizing web usage. However, web analytics is not just a process for measuring web traffic but can be used as a tool for business and market research, and to assess and improve the effectiveness of a website. Web analytics applications can also help companies measure the results of traditional print or broadcast advertising campaigns. †

Web app

→ Web application

Web application

A client-server computer program that the client (including the user interface and client-side logic) runs in a web browser. The general distinction between a dynamic web page of any kind and a “web application” is unclear. Websites most likely to be referred to as web applications are those which have similar functionality to a desktop or mobile application. †

Web application archive

A file used to distribute a collection of JAR files, JavaServer Pages, Java servlets, Java classes, XML files, tag libraries, static web pages (HTML and related files), and other resources that together constitute a web application. †

Web Application Firewall

A specific form of application firewall that filters, monitors, and blocks HTTP traffic to and from a web service. By inspecting HTTP traffic, a WAF can prevent attacks exploiting a

web application's known vulnerabilities, such as SQL injection, cross-site scripting (XSS), file inclusion, and improper system configuration. †

Web Application Framework

→ Web framework

Web beacon

→ Tracking pixel

Web browser

→ Browser

Web bug

→ Tracking pixel

Web Bundles

A draft standard to bundle and store HTTP responses. Web Bundles are a part of Google's Web Packaging effort. i github.com/WICG/webpackage

Web cache

→ Cache

Web component

A set of features that provide a standard component model for the Web allowing for encapsulation and interoperability of individual HTML elements. The primary technologies used to create web components include custom elements (APIs to define new HTML elements), Shadow DOM (encapsulated DOM and styling, with composition), and HTML templates (HTML fragments that are not rendered, but stored until instantiated via JavaScript). † i webcomponents.org

Web content

The textual, visual, or aural content that is encountered as part of the user experience on websites. Web content may include—among other things—text, images, sounds, videos, and animations. †

Web Content Accessibility Guidelines

A part of a series of web accessibility guidelines published by the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C). WCAG are a set of recommendations for making web content more accessible, primarily for people with disabilities, but also for user agents, including highly limited devices such as mobile phones. WCAG 1.0 became a W3C Recommendation in 1999, and WCAG 2.0 in 2008. i w3.org/TR/WCAG21

Web design

Skills and disciplines related to the production and maintenance of websites. The different areas of web design include web graphic design, interface design, user experience design, authoring (including standardized code and proprietary software), as well as search engine optimization. Often many individuals work in teams covering different aspects of the design process, although some designers will cover them all. The term “web design” is normally used to describe the design process relating to the frontend (client side) design of a website including writing markup. Web design partially overlaps web engineering in the broader scope of web development. Web designers are expected to have an awareness of usability, and if their role involves developing then they are also expected to be up-to-date with web accessibility and other guidelines. †

Web development

The work involved in developing a website for the Internet (World Wide Web) or an intranet (a private network). Web development can range from developing a simple single static page of plain-text to complex web-based Internet applications (web apps). A more comprehensive list of tasks to which web development commonly refers to may include web design, web content development, client- and server-side scripting, web engineering, web server and network security configuration, and e-commerce development. Among web professionals, “web development” usually refers to the main non-design aspects of building websites: describing document structures (HTML), giving formatting instructions (CSS), and implementing interaction and logic (scripting). †

Web Distributed Authoring and Versioning

An extension of the Hypertext Transfer Protocol (HTTP) that allows clients to perform remote web content authoring operations. WebDAV is defined in RFC 4918 by a working group of the Internet Engineering Task Force (IETF). The WebDAV protocol provides a framework for users to create, change, and move documents on a server. The most important features include maintenance of content properties, namespace management, collections, and overwrite protection. † i webdav.org

Web feed

→ Feed

Web font

A CSS feature that allows to specify font files to be downloaded along with a website as it is accessed, meaning that any browser that supports web fonts can use exactly the fonts defined. Web fonts are based on CSS @font-face rules, which specify the font file(s) to download. Several services, like Google Fonts, make it easy to choose and implement web fonts. ‡

Web forms

A revision of HTML forms that influenced and got integrated into HTML 5. The first draft for Web Forms was released in 2003. i w3.org/TR/web-forms-2

Web framework

Software that supports the development of web applications including web services, web resources, and web APIs. Web frameworks provide a standard way to build and deploy web applications. Web frameworks aim to automate the overhead associated with common activities performed in web development. For example, many web frameworks provide libraries for database access, templating frameworks, and session management, and they often promote code reuse. Although they often target the development of dynamic websites, they are also applicable to static websites. †

Web Graphics Library

A JavaScript API for rendering interactive 2D and 3D graphics within any compatible web browser without the use of plugins. WebGL is fully integrated with other web standards, allowing GPU-accelerated usage of physics and image processing and effects as part of the web page canvas. WebGL elements can be mixed with other HTML elements and composited with other parts of a page or page background. † i khronos.org/webgl

Web Hypertext Application Technology Working Group

A community of people interested in evolving HTML and related technologies. The WHATWG

was founded by individuals from Apple, the Mozilla Foundation, and Opera, leading web browser vendors, in 2004. Google subsequently joined the WHATWG with the move of the then-editor of the WHATWG specifications, Ian Hickson, from Opera to Google. The central organizational membership and control of WHATWG today—its “Steering Group”—consists of Apple, Mozilla, Google, and Microsoft. WHATWG has a small, invitation-only oversight committee, “Members,” which has the power to impeach the editor of the specifications. † [i whatwg.org](https://whatwg.org)

Web IDL

An interface description language (IDL) format for describing application programming interfaces (APIs) that are intended to be implemented in web browsers. Web IDL is an IDL variant with a number of features that allow to more easily describe the behavior of common script objects in a web context, and a mapping of how interfaces described with Web IDL correspond to language constructs within an ECMAScript execution environment. † [i webidl.spec.whatwg.org](https://webidl.spec.whatwg.org)

Web indexing

The indexing of contents of a website or of the Internet—the Surface Web—as a whole. Individual websites or intranets may use a back-of-the-book index, while search engines usually use keywords and metadata to provide a more useful vocabulary for Internet or on-site searching. †

Web Open Font Format

A font format for use in web pages. WOFF files are OpenType or TrueType fonts, with additional XML metadata added and format-specific compression applied. The two primary goals are to first distinguish font files intended for use as web fonts from fonts files intended for use in desktop applications via local installation, and second to reduce web font latency when fonts are transferred from a server to a client over a network connection. The first draft of WOFF 1 was published in 2009. † [i w3.org/TR/WOFF2](https://w3.org/TR/WOFF2)

Web Packaging

A set of draft standards for packaging websites, developed by Google. Web Packaging focuses on bundling website resources with provisions for authentication and offline sharing. [i github.com/WICG/webpackage](https://github.com/WICG/webpackage)

Web page

A document that acts as a web resource on the World Wide Web. In order to retrieve and display a web page, a web browser is needed. Typical web pages are hypertext documents which contain hyperlinks for browsing to other web pages. The term “web page” usually refers to what is visible, but may also refer to the contents of the source code itself, which is usually a file containing hypertext written in HTML or a comparable markup language. †

Web performance

→ Performance

Web Performance Optimization

The field of knowledge about increasing web performance, focusing on how to make websites and apps faster, or to get them to appear faster (perceived performance). †

Web platform

A collection of technologies developed as open standards by the World Wide Web Consortium

(W3C) and other standardization bodies such as the Web Hypertext Application Technology Working Group (WHATWG), the Unicode Consortium, the Internet Engineering Task Force (IETF), and Ecma International. It includes technologies—computer languages and APIs—that were originally created in relation to the publication of web pages, like HTML, CSS, SVG, MathML, WAI-ARIA, ECMAScript, and many others. “Web platform” is an umbrella term introduced by the World Wide Web Consortium. †

Web Platform Incubator Community Group

A World Wide Web Consortium (W3C) Community Group to provide “a lightweight venue for proposing and discussing new web platform features.” The WICG was founded in 2015. [i wicg.io](http://wicg.io)

Web resource

Any identifiable thing or entity, whether digital, physical, or abstract. Resources are identified using Uniform Resource Identifiers. In the Semantic Web, web resources and their semantic properties are described using the Resource Description Framework. The concept of a web resource has evolved during the Web’s history, from the early notion of static addressable documents or files, to a more generic and abstract definition, now encompassing everything that can be identified, named, addressed, or handled, in any way whatsoever, in the Web at large, or in any networked information system. †

Web service

A server running on a computer device, listening for requests at a particular port over a network, serving web documents (HTML, JSON, XML, multimedia), and creating web applications services, which serve in solving specific domain problems over the Web. †

A service offered by an electronic device to another electronic device, communicating with each other via the World Wide Web. †

Web site

→ Website

Web standard

A technical standard related to the Web, or the formal, non-proprietary standards and other technical specifications that define and describe aspects of the World Wide Web. In recent years, the term has been more frequently associated with the trend of endorsing a set of standardized best practices for building websites, and a philosophy of web design and development that includes those methods. †

Web standards movement

A grassroots coalition fighting for improved web standards support in browsers. The web standards movement traditionally supported concepts of standards-based web development, including the separation of document structure from a website’s or application’s appearance and behavior, an emphasis on semantically structured content that validates (that is, contains no errors of structural composition) when tested against validation software, and progressive enhancement, a layered approach to website and application creation that enables all people and devices to access a page, regardless of personal physical ability (accessibility), connection speed, and browser capability. †

Web Standards Project

A dissolved group of professional web developers dedicated to disseminating and encouraging

the use of the web standards recommended by the World Wide Web Consortium (W3C), along with other groups and standards bodies. Founded in 1998, the Web Standards Project campaigned for standards that reduce the cost and complexity of development while increasing the accessibility and long-term viability of any document published on the Web. WaSP worked with browser companies, authoring tool makers, and peers to encourage them to use these standards, since they “are carefully designed to deliver the greatest benefits to the greatest number of web users.” The group disbanded in 2013. † [i webstandards.org](http://webstandards.org)

Web storage

Methods and protocols for storing client-side data. Web storage supports persistent data storage, similar to cookies but with a greatly enhanced capacity and no information stored in the HTTP request header. There are two main web storage types: local storage and session storage, behaving similarly to persistent cookies and session cookies respectively. Web storage is standardized by the World Wide Web Consortium (W3C) and the WHATWG. †

Web tracking

The practice by which operators of websites collect, store, and share information about user activity on the World Wide Web. Analysis of individual behavior may be used to provide content that relates to the implied preferences and may be of interest to various parties. Uses for web tracking include creating profiles that are used to individualize advertisements (advertising), determining how easy a website design is to use (usability testing), analyzing the performance of websites as a whole (web analytics), or, broadly, spying on individuals and solving crime (law enforcement). †

Web typography

The use of fonts on the World Wide Web. When HTML was created, font faces and styles were controlled exclusively by the settings of each web browser. There was no mechanism for individual web pages to control font display until Netscape introduced the `font` element in 1995, which was then standardized in HTML 3.2. However, the font specified had to be installed on the user’s computer or a fallback font, such as a browser’s default sans-serif or monospace font, would be used. The CSS 2 specification attempted to improve the font selection process by adding font matching, synthesis, and download. These techniques did not gain much use, and were removed in CSS 2.1. However, Internet Explorer added support for the font downloading feature in version 4.0, released in 1997, which was later included in the CSS 3 fonts module, and has since been implemented in Safari 3.1, Opera 10, and Firefox 3.5. This has subsequently increased interest in web typography, as well as the usage of web fonts. †

Web Video Text Tracks

A World Wide Web Consortium (W3C) standard for displaying timed text in connection with the HTML `track` element. The early drafts of the specification were written by the WHATWG in 2010 after discussions about what caption format should be supported by HTML. † [i w3.org/TR/webvtt1](http://w3.org/TR/webvtt1)

Web Vitals

A set of metrics suggested important for a great user experience on the Web. The Web Vitals initiative was started in 2020 by Google. The “Core Web Vitals” include Largest Contentful Paint (LCP), First Input Delay (FID), and Cumulative Layout Shift (CLS). [i web.dev/vitals](https://web.dev/vitals)

Web worker

A JavaScript script executed from an HTML page that runs in the background, independently of scripts that may also have been executed from the same HTML page. The World Wide Web Consortium (W3C) and the WHATWG envision web workers as long-running scripts that are not interrupted by scripts that respond to clicks or other user interactions. Keeping such workers from being interrupted by user activities allows web pages to remain responsive at the same time as they are running long tasks in the background. † i is.gd/A546Cx

WebAssembly

A standard that defines a portable binary code format for executable programs, and a corresponding textual assembly language, as well as interfaces for facilitating interactions between such programs and their host environment. The main goal of WebAssembly is to enable high performance applications on web pages, but the format is designed to be executed and integrated in other environments as well. WebAssembly became a W3C Recommendation in 2019 and, alongside HTML, CSS, and JavaScript, is the fourth language to run natively in browsers. † i webassembly.org

WebAuthn

A core component of the FIDO2 Project, which is a joint effort between the FIDO Alliance and the World Wide Web Consortium (W3C) to provide strong authentication for the Web, and to standardize an interface for authenticating users to web-based applications and services using public-key cryptography. Support for WebAuthn can be implemented in a variety of ways. The underlying cryptographic operations are performed by an authenticator, which is an abstract functional model that is mostly agnostic with respect to how the key material is managed. This makes it possible to implement support for WebAuthn purely in software. WebAuthn Level 1 was published as a W3C Recommendation in 2019. † i w3.org/TR/webauthn

WebDAV

→ Web Distributed Authoring and Versioning

WebExplorer

An early web browser developed by IBM for OS/2. It was released in 1995 and discontinued in 1998. †

WebGL

→ Web Graphics Library

WebKit

A browser engine developed by Apple and primarily used in its Safari web browser, as well as all the iOS web browsers. WebKit's C++ API provides a set of classes to display web content. WebKit's HTML and JavaScript engine started as a fork of the KHTML and KJS libraries from KDE, and has since been further developed by KDE contributors, Apple, Google, Nokia, Bitstream, BlackBerry, Igalia, and others. WebKit was first released in 1998. † i webkit.org

Webkrauts

A former coalition of German web designers and developers. The Webkrauts were founded in 2005. i webkrauts.de

Weblog

→ Blog

WebM

An audiovisual media file format. WebM is primarily intended to offer a royalty-free alternative to use in the HTML video and audio elements. It was first released in 2010. WebM has a sister project for images, WebP. † [i webmproject.org](http://i.webmproject.org)

Webmaster

A person responsible for maintaining one or more websites. The title may refer to web architects, web developers, site authors, website administrators, website owners, website coordinators, or website publishers. †

Webmention

A W3C specification that describes a simple protocol to notify any URL when a website links to it, and for web pages to request notifications when somebody links to them. Webmention was originally developed in the IndieWebCamp community and published as a W3C working draft in 2016. Webmention enables authors to keep track of who is linking to, referring to, or commenting on their articles. By incorporating such comments from other sites, sites themselves provide federated commenting functionality. † [i w3.org/TR/webmention](http://i.w3.org/TR/webmention)

WebP

An image format employing both lossy and lossless compression. WebP was first released in 2010. † [i developers.google.com/speed/webp](http://i.developers.google.com/speed/webp)

webpack

A module bundler primarily for JavaScript which can transform frontend assets like HTML, CSS, and images if the corresponding loaders are included. It takes modules with dependencies and generates static assets representing those modules. webpack was first released in 2012. † [i webpack.js.org](http://i.webpack.js.org)

WebPageTest

A web-based website performance testing tool. WebPageTest launched publicly in 2008. [i webpagetest.org](http://i.webpagetest.org)

Website

A collection of related network web resources, such as web pages and multimedia content, which are typically identified with a common domain name and published on at least one web server. Websites can be accessed via a public Internet Protocol (IP) network, such as the Internet, or a private local area network (LAN), by a uniform resource locator (URL) that identifies the site. Websites can have many functions and can be used in various fashions. They are typically dedicated to a particular topic or purpose, ranging from entertainment and social networking to providing news and education. †

WebSocket

A computer communications protocol, providing full-duplex communication channels over a single TCP connection. The WebSocket protocol was standardized by the IETF as RFC 6455 in 2011, and the WebSocket API in Web IDL is being standardized by the World Wide Web Consortium (W3C). WebSocket is distinct from HTTP, although both protocols are located at layer 7 in the OSI model and depend on TCP at layer 4. The WebSocket protocol enables interaction between a web browser (or other client application) and a web server with lower overhead than half-duplex alternatives such as HTTP polling, facilitating real-time data transfer from and to the server. †

WebStorm

A commercial, cross-platform IDE for JavaScript. WebStorm was first released in 2010. [i jetbrains.com/webstorm](http://jetbrains.com/webstorm)

WebView

An Android system component (“View”) allowing apps to display web content directly in an application. [i is.gd/Sx0xdE](http://is.gd/Sx0xdE)

WebVTT

→ Web Video Text Tracks

WeChat Mini Program

→ Mini Program

Weebly

A website builder and web hosting service. Weebly was founded in 2006; in 2018, it was acquired by Square. [i weebly.com](http://weebly.com)

Weekly Active Users

→ Active Users

Weex

A mobile application framework supporting Vue.js and Rax, themselves frameworks that are integrated into the Weex SDK. [i weex.apache.org](http://weex.apache.org)

WeiXin Markup Language

A proprietary document language to describe page structures for so-called Mini Programs. WXML is maintained by Tencent. [i bit.ly/2XcZORT](http://bit.ly/2XcZORT)

WeiXin Script

A proprietary scripting language, used to build Mini Programs. WXS is maintained by Tencent. [i bit.ly/3nhfdvq](http://bit.ly/3nhfdvq)

WeiXin Style Sheets

An extension of Cascading Style Sheets (CSS) that includes additional dimensions and import options, and that is used to build Mini Programs. Like WXML and WXS, WXSS is maintained by Tencent. [i bit.ly/3pP0eKP](http://bit.ly/3pP0eKP)

Well-formedness

An attribute of document markup that adheres to the syntax rules specified by XML. Well-formed markup specifically refers to content being delimited by start and end tags, elements being properly nested, and void elements being closed. †

WET

The opposite of DRY (Don’t Repeat Yourself).

Wget

A computer program that retrieves content from web servers. Wget’s name derives from “World Wide Web” and “get.” It supports downloading via HTTP, HTTPS, and FTP, and features include recursive download, conversion of links for offline viewing of local HTML, as well as support for proxies. Wget was first released in 1996 and is part of the GNU Project. † [i gnu.org/software/wget](http://gnu.org/software/wget)

What You See Is All You Get

An idea from *The Pragmatic Programmer*, a disadvantage with WYSIWYG tools.

What You See Is What You Get

A system where editing software allows content to be edited in a form that resembles its appearance when printed or displayed as a finished product, such as a printed document, web page, or slide presentation. WYSIWYG implies a user interface that allows the user to view something similar to the end result. In general, WYSIWYG means the ability to directly manipulate the layout of a document without having to type or remember names of layout commands. The actual meaning depends on the user's perspective. †

WHATWG

→ Web Hypertext Application Technology Working Group

while

→ Loop

White-box testing

A method of software testing that tests internal structures or workings of an application, as opposed to its functionality (i.e., black-box testing). In white-box testing an internal perspective of the system, as well as programming skills, are used to design test cases. A tester chooses inputs to exercise paths through the code and to determine the expected outputs. White-box testing can be applied at the unit, integration, and system levels of the software testing process.

†

Whitelist

The practice of explicitly allowing identified entities access to a particular privilege, service, mobility, access, or recognition. The opposite of a whitelist is a blacklist. †

Whitespace

Any character or series of characters that represent horizontal or vertical space in typography. When rendered, a whitespace character does not correspond to a visible mark, but typically does occupy an area on a page. For example, the common whitespace symbol U+0020 SPACE (also ASCII 32) represents a blank space punctuation character in text, used as a word divider in western scripts. †

WHOIS

A query and response protocol that is widely used for querying databases that store the registered users or assignees of an Internet resource, such as a domain name, an IP address block, or an autonomous system, but is also used for a wider range of other information. The protocol stores and delivers database content in a human-readable format. The current iteration of the WHOIS protocol was drafted by the Internet Society, and is documented in RFC 3912. The first WHOIS directory was created in the 1970s. †

WICG

→ Web Platform Incubator Community Group

Wide area network

A telecommunications network that extends over a large geographic area for the primary purpose of computer networking. Wide area networks are often established with leased telecommunication circuits. The Internet may be considered a WAN. †

Widow

A paragraph-ending word that falls at the beginning of the following page or column, separated from the rest of the text. †

Wiki

A hypertext publication collaboratively edited and managed by its own audience directly using a web browser. A typical wiki contains multiple pages for the subjects or scope of the project and may be either open to the public or limited to use within an organization for maintaining its internal knowledge base. †

Window-Eyes

A screen reader for the Microsoft Windows operating system, developed by GW Micro. Window-Eyes was first released in 1995. †

Windows

A group of several proprietary graphical operating system families, all of which are developed and marketed by Microsoft. Each family caters to a certain sector of the computing industry. Active Microsoft Windows families include Windows NT and Windows IoT; these may encompass subfamilies, e.g., Windows Server or Windows Embedded Compact (Windows CE). Defunct Microsoft Windows families include Windows 9x, Windows Mobile, and Windows Phone. Microsoft introduced an operating environment named “Windows” in 1985, as a graphical operating system shell for MS-DOS in response to the growing interest in graphical user interfaces (GUIs). † [i microsoft.com/windows](http://i.microsoft.com/windows)

Windows Aero

A design language introduced in the Windows Vista operating system. “Aero” is a backronym for “Authentic, Energetic, Reflective, and Open.” Windows Aero was in force during the development of Windows Vista and Windows 7. In 2012 and with Windows 8 and Windows Server 2012, Microsoft moved on to a design language codenamed “Metro.” †

Windows, Apache, MySQL, PHP/Perl/Python

The equivalent of the LAMP or MAMP solution stack but with the Windows operating system.

WIP

→ Work in Progress

Wireframe

A visual guide that represents the skeletal framework of a website. Wireframes are created for the purpose of arranging elements to best accomplish a particular purpose, which is usually being informed by a business objective and a creative idea. A wireframe depicts the page layout or arrangement of a website’s content, including interface elements and navigational systems, and how they work together. A wireframe usually lacks typographic style, color, or graphics, since the main focus lies in functionality, behavior, and priority of content. It focuses on what a screen does, not what it looks like. †

Wireless Application Protocol

A technical standard for accessing information over a mobile wireless network. A WAP browser is a web browser for mobile devices (such as mobile phones) that uses the protocol. Introduced in 1999, WAP achieved some popularity in the early 2000s, but by the 2010s it had been largely superseded by more modern standards. Most modern handset Internet browsers now fully support HTML, meaning they do not need to rely on WML, WAP’s markup language. † [i is.gd/yIO55b](http://i.is.gd/yIO55b)

Wireless Markup Language

A now-obsolete XML-based markup language intended for devices that implement the Wireless

Application Protocol (WAP) specification, such as mobile phones. WML provides navigational support, data input, hyperlinks, text and image presentation, as well as forms, much like HTML. It preceded the use of other markup languages now used with WAP, such as HTML itself as well as XHTML (which have been gaining in popularity as processing power in mobile devices increased). WML was first released in 1998. †

Wix

A software company providing cloud-based web development services. It allows users to create websites through the use of online drag-and-drop tools. Wix was founded in 2006. † i wix.com

WML

→ Wireless Markup Language

Wobbly Transformation Format 8-Bit

An extension of UTF-8 where the encodings of unpaired surrogate halves (U+D800 through U+DFFF) are allowed. This is necessary to store possibly-invalid UTF-16, such as Windows filenames. Many systems that deal with UTF-8 work this way without considering it a different encoding, as it is simpler. †

WOFF

→ Web Open Font Format

WORA

→ Write Once, Run Anywhere

WordPress

A content management system (CMS) written in PHP and paired with a MySQL or MariaDB database. Features include a template system and a plugin architecture. WordPress was originally created as a blog-publishing system but has evolved to support other types of web content. As of 2019, WordPress is used by more than 60 million websites, including 33.6% of the top 10 million websites. It was released in 2003 by Matt Mullenweg and Mike Little. † i wordpress.org

WordPress Theme

A collection of templates and style sheets for customization of a site built with WordPress.

Work in Progress

Work still to be done, or being done.

Workaround

A bypass of a recognized problem or limitation in a system or policy. A workaround is typically a temporary fix that implies that a genuine solution to the problem is needed. Workarounds are frequently as creative as true solutions, involving outside the box thinking in their creation. Typically, they are considered brittle in that they will not respond well to further pressure from a system beyond the original design. In implementing a workaround it is important to flag the change so as to later implement a proper solution. A “workaround” can also be a euphemism for a “hack.” †

Workbox

A Google-maintained set of libraries and Node modules to assist the building of progressive web apps (PWAs). Workbox was first released in 2017. i is.gd/GFKM3p

Working Draft

The initial design phase of a World Wide Web Consortium (W3C) specification. Based on

internal and external feedback, the respective W3C Working Group fleshes out the draft.

Worklet

A piece of HTML specification infrastructure which can be used for running scripts independent of the main JavaScript execution environment, while not requiring a particular implementation model. Worklets are similar to web workers but are thread-agnostic; they are able to have multiple duplicate instances of the global scope created; they do not use an event-based API; they have a reduced API surface on the global scope; and they have a lifetime for their global object which is defined by other specifications. §

World Wide Web

An information system where documents and other web resources are identified by Uniform Resource Locators (URLs), which may be interlinked by hypertext, and are accessible over the Internet. The resources of the WWW are published by a software application called a web server, may be accessed by users through a software application called a web browser, and are transferred via the Hypertext Transfer Protocol (HTTP). Tim Berners-Lee invented the World Wide Web in 1989. †

World Wide Web Consortium

The main international standards organization for the World Wide Web. Founded in 1994 and currently led by Tim Berners-Lee, the consortium is made up of member organizations which maintain full-time staff working together in the development of standards for the World Wide Web. The consortium also engages in education and outreach, develops software, and serves as an open forum for discussion about the Web. † [i w3.org](http://www.w3.org)

WorldWideWeb

The first web browser and editor, later renamed “Nexus.” WorldWideWeb was discontinued in 1994. At the time it was written, it was the sole web browser in existence as well as the first WYSIWYG HTML editor. †

WPO

→ Web Performance Optimization

Wrapper

In software development, a subroutine in a software library or a computer program whose main purpose is to call a second subroutine or a system call with little or no additional computation. Wrapper functions are used to make writing computer programs easier by abstracting away the details of a subroutine’s underlying implementation. †

In web development, a name for a higher-level container, usually covering a major section of a document with many child elements.

Write Once, Run Anywhere

A slogan created by Sun Microsystems to illustrate the cross-platform benefits of the Java language. Ideally, this meant that a Java program could be developed on any device, compiled into standard bytecode, and be expected to run on any device equipped with a Java virtual machine (JVM). The installation of a JVM or Java interpreter on chips, devices, or software packages became an industry standard practice. †

WTF-8

→ Wobbly Transformation Format 8-Bit

WWW

→ World Wide Web

WXML

→ WeiXin Markup Language

WXS

→ WeiXin Script

WXSS

→ WeiXin Style Sheets

WYSIAYG

→ What You See Is All You Get

WYSIWYG

→ What You See Is What You Get



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

X

X.509

A standard defining the format of public key certificates. X.509 certificates are used in many Internet protocols, including TLS/SSL, the basis for HTTPS. They are also used in offline applications, like electronic signatures. An X.509 certificate contains a public key and an identity, and is either signed by a certificate authority or self-signed. X.509 is defined by the International Telecommunications Union's "Standardization Sector" (ITU-T), and based on ASN.1, another ITU-T standard. † i itu.int/rec/T-REC-X.509

x-height

The distance between the baseline and the mean line of lowercase letters in a typeface. Typically, this is the height of the letter "x" in a font (the source of the term), as well as the letters "v", "w", and "z". (Curved letters such as "a", "c", "e", "m", "n", "o", "r", "s", and "u" tend to exceed the x-height slightly, due to overshoot.) As one of the most important dimensions of a font, x-height is used to define how high lowercase letters are compared to uppercase letters.

†

XAML

→ Extensible Application Markup Language

XForms

An XML format used for collecting inputs from web forms. XForms was designed to be the next generation of HTML forms, but is generic enough that it can also be used in a standalone manner or with presentation languages other than XHTML to describe a user interface and a set of common data manipulation tasks. XForms 1.0 (Third Edition) was published in 2007. † i w3.org/TR/xforms

XHP

An augmentation of PHP and Hack developed at Facebook to allow XML syntax for the purpose of creating custom and reusable HTML elements. XHP was first released in 2010. †

XHR

→ XMLHttpRequest

XHTML

→ Extensible HyperText Markup Language

XLink

An XML markup language and W3C specification that provides methods for creating internal and external links within XML documents, and associating metadata with those links. † i w3.org/TR/xlink11

XML

→ Extensible Markup Language

XML Schema Definition

A specification for how to formally describe the elements in an Extensible Markup Language (XML) document. XSD can be used by programmers to verify each piece of item content in a document, and to check if it adheres to the description of the element it is placed in. † i w3.org/TR/xmlschema-0

XML User Interface Language

A user interface markup language developed by Mozilla. XUL is implemented as an XML dialect, enabling graphical user interfaces to be written in a similar manner to web pages. Such applications must be created using the Mozilla code base (or a fork of it), with the Firefox web browser being the most prominent example. † i developer.mozilla.org/XUL

XML-RPC

A remote procedure call (RPC) protocol which uses XML to encode its calls and HTTP as a transport mechanism. XML-RPC was created in 1998 by Dave Winer. As new functionality was introduced, the standard soon evolved into what is now SOAP. † i xmlrpc.com

XMLHttpRequest

An API in the form of an object whose methods transfer data between a web browser and a web server. The object is provided by the browser's JavaScript environment. Particularly, retrieval of data from XHR for the purpose of continually modifying a loaded web page is the underlying concept of AJAX design. Despite the name, XHR can be used with protocols other than HTTP and data can be in the form of not only XML, but also HTML, JSON, or plain-text. †

XP → Extreme Programming

XPath

A query language for selecting nodes from an XML document. In addition, XPath may be used to compute values (e.g., strings, numbers, or Boolean values) from the content of an XML document. XPath was developed in 1998 by the World Wide Web Consortium (W3C). † i w3.org/TR/xpath-3

XPointer

A system for addressing components of XML-based Internet media. It is divided among four specifications: a “framework” that forms the basis for identifying XML fragments, a positional element addressing scheme, a scheme for namespaces, and a scheme for XPath-based addressing. XPointer, or the XPointer Framework, became a W3C Recommendation in 2003. † i w3.org/TR/xptr-framework

XQuery

A query and functional programming language that queries and transforms collections of structured and unstructured data, usually in the form of XML or text, and with vendor-specific extensions for other data formats (JSON, binary, etc.). The language is developed by the XML Query Working Group of the World Wide Web Consortium (W3C). The work is closely coordinated with the development of XSLT by the XSL Working Group; the two groups share responsibility for XPath, which is a subset of XQuery. † i w3.org/TR/xquery-31

XSD

→ XML Schema Definition

XSL

→ Extensible Stylesheet Language

XSLT

→ Extensible Stylesheet Language Transformations

XSRF

→ Cross-Site Request Forgery

XSS → Cross-Site Scripting

XSSI

→ Cross-Site Script Inclusion

XUL

→ XML User Interface Language



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

Y

Y2K

→ Year 2000 problem

YAGNI

→ You Aren't Gonna Need It

Yahoo Developer Network

Documentation and software solutions for the developer community provided by Yahoo. YDN was started in 2005. [i developer.yahoo.com](#)

Yahoo Query Language

An SQL-like query language created by Yahoo as part of their Yahoo Developer Network (YDN). YQL is designed to retrieve and manipulate data from APIs through a single web interface, thus allowing mashups that enable developers to create their own applications. YQL was launched in 2008 and retired in 2019 with the YQL API service. †

Yahoo User Interface

→ Yahoo User Interface Library

Yahoo User Interface Library

A discontinued JavaScript library for building richly interactive web applications using techniques such as DHTML, AJAX, and general DOM scripting. YUI includes several core CSS resources. Development on YUI began in 2005; Yahoo properties such as My Yahoo and the Yahoo front page began using YUI in the summer of that year. YUI was released for public use in 2006, and development stopped in 2014. † [i yuilibrary.com](#)

YAML

→ YAML Ain't Markup Language

→ Yet Another Multicolumn Layout

YAML Ain't Markup Language

A human-readable data-serialization language that is commonly used for configuration files and in applications where data is being stored or transmitted. YAML targets many of the same communications applications as XML but has a minimal syntax which intentionally differs from SGML. It uses both Python-style indentation to indicate nesting, and a more compact format that uses [] for lists and {} for maps, making YAML 1.2 a superset of JSON. † [i yaml.org](#)

Yandex Browser

A web browser developed by the web search company Yandex that is based on the Chromium project and uses the Blink web browser engine. The browser checks web page security with the Yandex security system, and downloaded files with Kaspersky Anti-Virus. Yandex Browser was first released in 2012. † [i browser.yandex.com](#)

Yarn

A package manager for the JavaScript programming language. Yarn was developed in 2016 by Facebook. [i yarnpkg.com](#)

yarn.lock

An auto-generated lock file used by the Yarn package manager.

YDN

→ Yahoo Developer Network

Year 2000 problem

Anticipated and manifested problems related to the formatting and storage of calendar data for dates beginning in the year 2000, due to programs representing four-digit years with only the final two digits, thereby making the year 2000 indistinguishable from 1900. The assumption of a twentieth-century date in such programs could cause various errors, such as the incorrect display of dates and the inaccurate ordering of automated dated records or real-time events. Companies and organisations in some countries, but not all, checked, fixed, and upgraded their computer systems to address the anticipated problem. Few computer failures were reported when the clocks rolled over into 2000. †

Yet Another Multicolumn Layout

A modular HTML/CSS framework. YAML was first released in 2005. [i yaml.de](http://i.yaml.de)

yield

A keyword used to pause and resume a generator function. ‡

YMYL

→ Your Money or Your Life

You Aren't Gonna Need It

A principle of Extreme Programming (XP) that states that a programmer should not add functionality until deemed necessary. Quoting XP co-founder Ron Jeffries, “Always implement things when you actually need them, never when you just foresee that you need them.” Other forms of the phrase include “You aren't going to need it” and “You ain't gonna need it.” †

Your Money or Your Life

A category from Google's *Search Quality Evaluator Guidelines* that covers websites and apps that may impact “a person's future happiness, health, financial stability, or safety” and for which result quality is particularly important.

YQL

→ Yahoo Query Language

YSlow

A possibly retired browser extension and bookmarklet to analyze and improve website performance. [i yeslow.org](http://i.yeslow.org)

YUI → Yahoo User Interface



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

Z

Z shell

A Unix shell that can be used as an interactive login shell and as a command interpreter for shell scripting. Zsh is an extended Bourne shell with many improvements, including features of Bash, ksh, and tcsh. †

Zero-based indexing

A way of numbering in which the initial element of a sequence is assigned the index 0, rather than the index 1 as is typical in everyday non-mathematical or non-programming circumstances. Under zero-indexed or zero-based numbering, the initial element is sometimes termed the “zeroth” element, rather than the first element; “zeroth” is a coined ordinal number corresponding to the number zero. †

Zero-configuration networking

A set of technologies that automatically creates a usable computer network based on the Internet protocol suite (TCP/IP) when computers or network peripherals are interconnected. Zeroconf does not require manual operator intervention or special configuration servers. Without it, a network administrator must set up network services, such as Dynamic Host Configuration Protocol (DHCP) and Domain Name System (DNS), or configure each computer’s network settings manually. Zeroconf is built on three core technologies: automatic assignment of numeric network addresses for networked devices, automatic distribution and resolution of computer hostnames, and automatic location of network services, such as printing devices. †

Zero-indexed

→ Zero-based indexing

Zeroconf

→ Zero-configuration networking

ZIP An archive file format that supports lossless data compression. A ZIP file may contain one or more files or directories that may have been compressed. The ZIP file format permits a number of compression algorithms, though DEFLATE is the most common. ZIP was released in 1989 by Phil Katz. †

Zombie cookie

An HTTP cookie that is recreated after deletion, usually from backups stored outside the web browser’s dedicated cookie storage. A zombie cookie may be stored online or directly onto a visitor’s computer, in a breach of browser security and making it difficult to remove. Zombie cookies may be installed on a web browser that has opted not to receive cookies. †

Zone file

A text file that describes a Domain Name System (DNS) zone. A DNS zone is a subset, often a single domain, of the hierarchical domain name structure of the DNS. The zone file contains mappings between domain names and IP addresses and other resources, organized in the form

of text representations of resource records (RR). A zone file may be either a DNS master file, authoritatively describing a zone, or it may be used to list the contents of a DNS cache. Zone files were first introduced in 1987. †

Zsh → Z shell



Is something important missing, or did you find a mistake? Please [share your feedback!](#)

Appendix

Wikipedia Contributions

This book uses material from the following Wikipedia articles:

- [.htaccess](#)
- [.htpasswd](#)
- [.NET Framework](#)
- [8.3 filename](#)
- [A/B testing](#)
- [Abstract data type](#)
- [Accelerated Mobile Pages](#)
- [Acceptance test-driven development](#)
- [Acceptance testing](#)
- [Access control](#)
- [Access key](#)
- [Access token](#)
- [Access-control list](#)
- [Accessibility](#)
- [ACID](#)
- [Acknowledgement \(data networks\)](#)
- [Acqui-hiring](#)
- [ActionScript](#)
- [Active redundancy](#)
- [Active Server Pages](#)
- [Active users](#)
- [Address Resolution Protocol](#)
- [Adobe ColdFusion](#)
- [Adobe Dreamweaver](#)
- [Adobe Flash](#)
- [Adobe Flash Player](#)
- [Adobe Photoshop](#)
- [ads.txt](#)
- [Advanced Encryption Standard](#)
- [Advanced persistent threat](#)

- Affordance
- Agile software development
- AirMosaic
- Ajax (programming)
- ALGOL
- Algorithm
- Aliasing
- Amazon Route 53
- Amazon S3
- Amazon Simple Queue Service
- Amazon Virtual Private Cloud
- Amazon Web Services
- Angular (web framework)
- AngularJS
- Animation
- Anonymous function
- Anti-pattern
- Apache Maven
- Apache Subversion
- Apache Tomcat
- Applet
- Application programming interface
- Application software
- APT (software)
- Arena (web browser)
- Array data structure
- ASP.NET
- Aspect ratio (image)
- AssemblyScript
- Assignment (computer science)
- Assistive technology
- Assistive Technology Service Provider Interface
- Association for Computing Machinery
- Asynchronous module definition
- Asynchrony (computer programming)
- at (command)
- Attribute (computing)
- Augmented reality
- Authentication
- Authorization
- Automation
- AV1

- Babel (transpiler)
- Backlink
- Backup
- Backward compatibility
- Bada
- Bandwidth (computing)
- Base64
- Baseline (typography)
- Bash (Unix shell)
- Basic access authentication
- BBCode
- Behavior-driven development
- Best practice
- Bézier curve
- Bidirectional text
- Big O notation
- Binary large object
- Binary number
- Binary search algorithm
- Bitbucket
- Black hat (computer security)
- Black-box testing
- Blacklist (computing)
- Blink (browser engine)
- Blog
- Blogosphere
- BMP file format
- Bookmark (digital)
- Bookmarklet
- Boolean data type
- Border Gateway Protocol
- Bounce rate
- Boundary value problem
- Bourne shell
- Branching (version control)
- Braille
- Breadcrumb navigation
- Breakpoint
- Brotli
- Browser engine
- Browser extension
- Browser Helper Object

- Browser sniffing
- Browsing
- Bug tracking system
- Bugzilla
- Bushnell's Law
- Byte order mark
- Bytecode
- Cache (computing)
- California Consumer Privacy Act
- Call to action (marketing)
- Callback (computer programming)
- Camel case
- Camino (web browser)
- Canonical link element
- CAP theorem
- CAPTCHA
- Caret
- Cascading Style Sheets
- CDATA
- Certificate authority
- Chaos engineering
- CheiRank
- Chrome OS
- Chromium (web browser)
- Cipher
- Class (computer programming)
- Class variable
- Classless Inter-Domain Routing
- Clean URL
- Click-through rate
- Clickjacking
- Client (computing)
- Client-side
- Cloaking
- Clojure
- Closure (computer programming)
- Cloud computing
- Cloud storage
- CMYK color model
- CNAME record
- Coalescing (computer science)
- Code coverage

- Code golf
- Code point
- Code of conduct
- Code refactoring
- Code review
- Code smell
- CodePen
- CoffeeScript
- ColdFusion Markup Language
- Color blindness
- Color management
- Color scheme
- Color wheel
- Comma-separated values
- Command (computing)
- Command-line interface
- Command-query separation
- Comment (computer programming)
- Common Gateway Interface
- Common Vulnerabilities and Exposures
- Common Vulnerability Scoring System
- CommonJS
- Communication protocol
- Community of practice
- Compatibility mode
- Compiler
- Complementary colors
- Component-based software engineering
- Composite Capability/Preference Profiles
- Computer cluster
- Computer code
- Computer compatibility
- Computer file
- Computer network
- Computer programming
- Concurrency (computer science)
- Concurrent Versions System
- Conditional (computer programming)
- Conditional comment
- Cone of Uncertainty
- Conflict of interest
- Consistency

- Console application
- Constant (computer programming)
- Constructor (object-oriented programming)
- Content (media)
- Content delivery network
- Content management system
- Content negotiation
- Content Security Policy
- Content sniffing
- Context switch
- Continuous delivery
- Continuous deployment
- Continuous integration
- Control flow
- Convention over configuration
- Conway's law
- Corporate design
- Corporate identity
- Country code top-level domain
- Coupling (computer programming)
- Craft
- Create, read, update and delete
- Critical path method
- cron
- Cross-origin resource sharing
- Cross-site request forgery
- Cross-site scripting
- Cryptographic nonce
- Cryptography
- CSS box model
- CSS framework
- CSS image replacement
- CSS Zen Garden
- CSS-in-JS
- cURL
- Currying
- Customer relationship management
- Cyclomatic complexity
- D3.js
- Daemon (computing)
- Dark pattern
- Darknet

- Dart (programming language)
- Data
- Data center
- Data compression
- Data control language
- Data definition language
- Data lake
- Data manipulation language
- Data storage
- Data stream management system
- Data type
- Data validation
- Data visualization
- Data warehouse
- Database
- Database engine
- Database index
- Database normalization
- Database server
- Dead code elimination
- Debugging
- Deep web
- Denial-of-service attack
- Deno (software)
- Dependency injection
- Dependency inversion principle
- Deployment environment
- Deprecation
- Descender
- Design
- Design by contract
- Design pattern
- Device fingerprint
- DevOps
- Dialog box
- Digital display advertising
- Digital rights management
- Disabilities affecting intellectual abilities
- Disability Discrimination Act 1995
- Disciplined agile delivery
- Display contrast
- Display resolution

- Distributed Concurrent Versions System
- Distributed object communication
- Distributed version control
- Dither
- Django
- DMARC
- DMZ (computing)
- DNS over HTTPS
- DNS root zone
- DNS spoofing
- DocBook
- Docker (software)
- Document Object Model
- Document Style Semantics and Specification Language
- Document type declaration
- Document type definition
- Documentation
- Dojo Toolkit
- Domain name
- Domain name registrar
- Domain Name System
- Domain Name System Security Extensions
- Domain-driven design
- DomainKeys Identified Mail
- Don't repeat yourself
- Doorway page
- Dots per inch
- Downtime
- Duck typing
- Duplicate code
- Dynamic Host Configuration Protocol
- Dynamic HTML
- Dynamic Language Runtime
- Dynamic web page
- Dyslexia
- E-commerce
- EBCDIC
- Eclipse (software)
- Ecma International
- ECMAScript
- Effectiveness
- Efficiency

- Electron (software framework)
- Electronic Frontier Foundation
- Em (typography)
- Emacs
- Email
- Email spoofing
- Email address
- Empty string
- Encapsulation (computer programming)
- End-of-file
- Environment variable
- Equality Act 2010
- Error
- Ethics
- Etiquette
- European Accessibility Act
- Event (computing)
- Event loop
- Event-driven architecture
- Eventual consistency
- Exception handling
- Exception handling syntax
- Exit status
- Express.js
- Extensible Application Markup Language
- Extract, transform, load
- Extreme programming
- Eye tracking
- Facade pattern
- Facebook Instant Articles
- Facebook Platform
- Fagan inspection
- Failover
- Fallback
- False positives and false negatives
- Favicon
- Feature creep
- Feature detection (web development)
- Feature phone
- Federal Information Processing Standards
- Federated Learning of Cohorts
- Federation (information technology)

- FIFO (computing and electronics)
- Figma (software)
- File locking
- File manager
- File system
- File Transfer Protocol
- Filler text
- Fingerprint (computing)
- Fitts's law
- Flash of unstyled content
- Flat design
- Flock (web browser)
- Fluent Design System
- FOAF (ontology)
- Folksonomy
- Font
- Foobar
- Foreign key
- Fork (software development)
- Form (HTML)
- Formatting Output Specification Instance
- Forward compatibility
- Forward secrecy
- Fragment identifier
- Frame (World Wide Web)
- Frame rate
- Framekiller
- Free and open-source software
- Free Software Foundation
- Free variables and bound variables
- Front and back ends
- FTPS
- Fully qualified domain name
- Function as a service
- Functional programming
- Functional testing
- Fuzzing
- Gamma correction
- Garbage collection (computer science)
- Garbage in, garbage out
- Gateway (telecommunications)
- Gecko (software)

- General Data Protection Regulation
- Generic top-level domain
- Geo-fence
- GIF
- Git
- GitHub
- GitHub Copilot
- GitLab
- GNU
- GNU General Public License
- GNU Project
- Go (programming language)
- Goanna (software)
- Golden ratio
- Google Cloud Platform
- Google Lighthouse
- Google PageSpeed Tools
- Google TalkBack
- Google Web Server
- Gopher (protocol)
- Grapheme
- Graphical user interface
- Graphics processing unit
- GraphQL
- GRASP (object-oriented design)
- Greasemonkey
- Greenfield project
- Grid (graphic design)
- Grid computing
- Guetzli
- gulp.js
- Gutter
- gzip
- Hackathon
- Hacker
- Haml
- Hardware security module
- Hash function
- Hash table
- Hashtag
- Head-of-line blocking
- Headless software

- [Helper class](#)
- [Hexadecimal](#)
- [High Efficiency Image File Format](#)
- [Higher-order function](#)
- [Hick's law](#)
- [Hidden file and hidden directory](#)
- [Hit \(Internet\)](#)
- [HITS algorithm](#)
- [HMAC](#)
- [HMAC-based One-Time Password](#)
- [Home page](#)
- [Home screen](#)
- [Hooking](#)
- [Host \(network\)](#)
- [Host Identity Protocol](#)
- [Hostname](#)
- [HSL and HSV](#)
- [HTML](#)
- [HTML element](#)
- [HTML5 Boilerplate](#)
- [HTTP cookie](#)
- [HTTP Flood](#)
- [HTTP Strict Transport Security](#)
- [HTTP/2](#)
- [HTTP/3](#)
- [HTTPS](#)
- [HTTPS Everywhere](#)
- [Human-computer interaction](#)
- [Hungarian notation](#)
- [Hype cycle](#)
- [Hypertext](#)
- [Hypertext Transfer Protocol](#)
- [Hypervisor](#)
- [IBM Home Page Reader](#)
- [IBM WebExplorer](#)
- [ICANN](#)
- [Icon \(computing\)](#)
- [Identifier](#)
- [IDL \(programming language\)](#)
- [Image](#)
- [Image map](#)
- [Immutable object](#)

- Indexed color
- Indexed Database API
- Industrial design
- Information architecture
- Information design
- Information foraging
- Information overload
- Information retrieval
- Information security
- Information security operations center
- Infrastructure as a service
- Infrastructure as code
- Inheritance (object-oriented programming)
- Initiative for Open Authentication
- Inline linking
- Input/output
- Instance variable
- Institute of Electrical and Electronics Engineers
- Integer
- Integer (computer science)
- Integrated development environment
- Intellectual property
- IntelliJ IDEA
- Interaction design
- Interactive Advertising Bureau
- Interface (computing)
- Interface description language
- Interface segregation principle
- International Organization for Standardization
- International Telecommunication Union
- Internationalization and localization
- Internationalized Resource Identifier
- Internet
- Internet Architecture Board
- Internet Assigned Numbers Authority
- Internet Engineering Task Force
- Internet Explorer
- Internet Information Services
- Internet Message Access Protocol
- Internet Protocol
- Internet Relay Chat
- Internet service provider

- Internet Society
- InterNIC
- Interoperability
- InterPlanetary File System
- Interpolation
- Interstitial webpage
- Intranet
- Inversion of control
- IOPS
- iOS
- IP address
- iptables
- IPv4
- IPv6
- JAR (file format)
- Jasmine (JavaScript testing framework)
- Java (programming language)
- Java Database Connectivity
- Java Development Kit
- Java servlet
- Java virtual machine
- JavaFX
- JavaScript framework
- JavaScript library
- JavaScript Style Sheets
- JavaServer Pages
- JAWS (screen reader)
- Jenkins (software)
- Jetty (web server)
- Jinja (template engine)
- Jira (software)
- Joint Photographic Experts Group
- Joomla
- JPEG
- jQuery
- JScript
- JSLint
- JSON
- JSON Feed
- JSON Web Encryption
- JSON Web Signature
- JSON Web Token

- JSON-LD
- JSONP
- Just-in-time compilation
- Just-in-time manufacturing
- K-Meleon
- Kanban (development)
- Kerberos (protocol)
- Kerning
- Key (cryptography)
- Key frame
- Key-value database
- Knowledge Graph
- Kubernetes
- LAMP (software bundle)
- Landing page
- Laravel
- Latency (engineering)
- LaTeX
- Law of conservation of complexity
- Lazy loading
- Lead programmer
- Lead time
- Leading
- Lean thinking
- Legibility
- Less (stylesheet language)
- Let's Encrypt
- Letter case
- Letter-spacing
- libwww
- Light-on-dark color scheme
- Lightweight Directory Access Protocol
- Lightweight markup language
- Likert scale
- Link farm
- Link rot
- Linked data
- lint (software)
- Linux
- Linux Standard Base
- Liskov substitution principle
- Lisp (programming language)

- List of DNS record types
- List of HTTP status codes
- List of XML and HTML character entity references
- Literal (computer programming)
- Little's law
- Load balancing (computing)
- Local area network
- Local variable
- Locale (computer software)
- Location information server
- Log file
- Login
- Long-term support
- Look and feel
- Lossless compression
- Lossy compression
- Lynx (web browser)
- MAC address
- Machine learning
- macOS
- Macromedia HomeSite
- MacWWW
- Magic (programming)
- Maintainability
- Maintenance (technical)
- Makefile
- MAMP
- Man-in-the-middle attack
- Markdown
- Marketing
- Markup language
- Massively parallel
- Masthead (American publishing)
- Material Design
- Mathematical markup language
- Mathematical optimization
- MathML
- MD2 (hash function)
- MD4
- MD5
- MD6
- MEAN (software bundle)

- Media (communication)
- Media queries
- Media type
- Memoization
- Menu (computing)
- Merge (version control)
- Message authentication code
- Meta element
- Metadata
- Method (computer programming)
- Method stub
- Metro (design language)
- Microformat
- Microservices
- Microsite
- Microsoft Active Accessibility
- Microsoft Edge
- Microsoft FrontPage
- Microsoft Silverlight
- Microsoft Windows
- Middleware
- MIME
- Minification (programming)
- Minimum viable product
- Mixin
- Mobile computing
- Mobilegeddon
- Modal window
- Model-view-controller
- Model-view-viewmodel
- Modernizr
- Modular design
- Monolithic application
- Monorepo
- Mosaic (web browser)
- Moving Picture Experts Group
- Multi-factor authentication
- Multimedia
- Multiple inheritance
- Muphry's law
- Murphy's law
- Mustache (template system)

- Mutual authentication
- MySQL
- Name binding
- Name server
- Namespace
- NaN
- National Institute of Standards and Technology
- Native (computing)
- NativeScript
- Natural key
- Natural user interface
- Negative space
- Nesting (computing)
- Net Promoter
- Netscape Navigator
- Network address translation
- Network domain
- Network packet
- Newbie
- Newline
- News aggregator
- Next.js
- Nginx
- Ninety-ninety rule
- Nmap
- Node (computer science)
- Node.js
- nofollow
- Non-disclosure agreement
- NonVisual Desktop Access
- Normative
- NoSQL
- npm (software)
- Null coalescing operator
- Null device
- Null pointer
- Number sign
- Numerical digit
- Nuxt.js
- OAuth
- Obfuscation (software)
- Object (computer science)

- Object-oriented programming
- Observer pattern
- OCSP stapling
- OKR
- One-time password
- Online analytical processing
- Online Certificate Status Protocol
- Online transaction processing
- OOCSS
- Open source
- Open-closed principle
- OpenID
- OpenType
- Opera Mini
- Operand
- Operating system
- Operator (computer programming)
- Operator (mathematics)
- Orca (assistive technology)
- Orthogonality (programming)
- Orthographic ligature
- OS-level virtualization
- OSI model
- Out of memory
- Over-the-air programming
- OWASP
- Page layout
- PageRank
- Pageview
- Pair programming
- Paper prototyping
- Paradigm
- Parallax scrolling
- Parameter (computer programming)
- Pareto principle
- Parkinson's law
- Parsing
- Patch (computing)
- Path (computing)
- PATH (variable)
- Pay-per-click
- Payload (computing)

- Paywall
- PCDATA
- PDF
- Penetration test
- Perceived performance
- Percent-encoding
- Performance indicator
- Perl
- Permalink
- Persona (user experience)
- Personal data
- PhantomJS
- Phishing
- PHP
- PhpStorm
- ping (networking utility)
- pip (package manager)
- Pixel
- Plain text
- Plane (Unicode)
- Platform as a service
- Plug-in (computing)
- Pointer (computer programming)
- Pointing device
- Polyfill (programming)
- Polymer (library)
- Pop-up ad
- Port (computer networking)
- Portable Network Graphics
- Post Office Protocol
- PostCSS
- Posting style
- Postmortem documentation
- PowerShell
- Predication (computer architecture)
- Prefetching
- Presto (browser engine)
- Primary key
- Primitive data type
- Privacy
- Program optimization
- Programming language

- Progressive enhancement
- Progressive web application
- Property (programming)
- Proxy server
- Public key certificate
- Punycode
- Puppet (software)
- Push technology
- Python (programming language)
- qooxdoo
- Quality (business)
- Quality assurance
- Quality control
- Queries per second
- Query
- Query language
- QUIC
- Quirks mode
- Race condition
- RADIUS
- Raku (programming language)
- Random variable
- Random-access memory
- Ranking
- Raster graphics
- Rate limiting
- React (web framework)
- React Native
- Reactive programming
- Read-eval-print loop
- Readability
- README
- Real user monitoring
- RealAudio
- RealVideo
- Recursion (computer science)
- Redundancy (engineering)
- Redux (JavaScript library)
- Reed-Solomon error correction
- Referential transparency
- Regular expression
- Relational data stream management system

- Relational database
- Relational model
- Remote Desktop Protocol
- Remote procedure call
- Replay attack
- Request for Comments
- Reserved word
- Resource Description Framework
- Responsibility assignment matrix
- Responsive web design
- Reverse proxy
- Revision tag
- RGB color model
- Rich Text Format
- Rich web application
- Right-to-left
- Robots exclusion standard
- Robustness principle
- Root directory
- Root element
- Root name server
- Rooting (Android)
- Round-trip delay time
- Router (computing)
- Routing
- Routing table
- RPM Package Manager
- RSS
- RTFM
- Rubber duck debugging
- Ruby (programming language)
- Ruby on Rails
- Runbook
- Safari (web browser)
- Same-origin policy
- Sandbox (computer security)
- Sandbox (software development)
- Sass (stylesheet language)
- Scaled agile framework
- Scope (computer science)
- Screen magnifier
- Screen reader

- Scripting language
- Scrolling
- Scrum (software development)
- SeaMonkey
- Search engine indexing
- Search engine marketing
- Secure Shell
- Security Assertion Markup Language
- Security hacker
- Security operations center
- security.txt
- Search engine optimization
- Selenium (software)
- Semantic Web
- Semantics (computer science)
- Sender Policy Framework
- Separation of concerns
- Serialization
- Serif
- Server (computing)
- Server farm
- Server Name Indication
- Server-side
- Serverless computing
- Service discovery
- Service-oriented architecture
- Service-level agreement
- Session (computer science)
- Session hijacking
- Set (abstract data type)
- SGML entity
- Shebang (Unix)
- Shell (computing)
- Shim (computing)
- Simple Mail Transfer Protocol
- Single point of failure
- Single responsibility principle
- Single-page application
- Site map
- Sitemaps
- Slowloris (computer security)
- Smoke testing (software)

- Snake case
- SOA record
- SOAP
- Soft launch
- Software
- Software as a service
- Software bug
- Software crisis
- Software deployment
- Software development
- Software development kit
- Software framework
- Software modernization
- Software prototyping
- Software testing
- Software versioning
- SOLID
- Solution stack
- Source lines of code
- Source-code editor
- Source-to-source compiler
- Spaghetti code
- Spam
- Spamdexing
- Spamming
- SPDY
- Specification (technical standard)
- Spectre (security vulnerability)
- Speech synthesis
- Spike (software development)
- Spinner (computing)
- Splash screen
- Spoofing attack
- SQL
- SQL injection
- Squarespace
- sRGB
- SSH File Transfer Protocol
- Stack (abstract data type)
- Stack Overflow
- Stand-up meeting
- Standard Generalized Markup Language

- State (computer science)
- Statement (computer science)
- Static web page
- Storage area network
- Strategic design
- Stream (computing)
- Streaming media
- String (computer science)
- Structural similarity
- Style sheet (web development)
- Stylus (stylesheet language)
- Subject Alternative Name
- Subject-matter expert
- Subnetwork
- Subresource Integrity
- Subroutine
- Superkey
- Superuser
- Surface web
- Surrogate key
- Switch statement
- Symbol (programming)
- Symphony
- Synchronized Multimedia Integration Language
- Syntactic sugar
- Syntax (programming languages)
- syslog
- Tabnabbing
- Tag management system
- Tag soup
- tar (computing)
- Tcl
- Technical debt
- Technical standard
- Technology roadmap
- Telnet
- Template processor
- Ternary operation
- Test-driven development
- TeX
- Textile (markup language)
- The Open Group Architecture Framework

- Theme (computing)
- Third-party source
- Thread (computing)
- Three-click rule
- Time to first byte
- Time to live
- Time-based One-Time Password
- Timed text
- Timestamp
- Tizen
- Tokenization (data security)
- TOML
- Top-level domain
- TOP500
- Tor (anonymity network)
- Tracing (software)
- Transclusion
- Transcreation
- Transmission Control Protocol
- Transport Layer Security
- Travis CI
- Tree (data structure)
- Tree shaking
- Trident (software)
- TrueType
- Trust on first use
- TrustRank
- Turing completeness
- Type conversion
- Type design
- Type system
- Typeface
- TypeScript
- TYPO3
- Typography
- UDP flood attack
- Unicode
- Unicode Consortium
- Unicode equivalence
- Unified Modeling Language
- Uniform Resource Characteristic
- Uniform Resource Identifier

- Uniform Resource Name
- Uninitialized variable
- Unique selling proposition
- Unit testing
- Universal Access
- Universal design
- Universally unique identifier
- Uniwidth typeface
- Unix
- Unix philosophy
- URL
- URL redirection
- Usability
- Usability inspection
- Usability testing
- Use case
- Usenet
- User (computing)
- User agent
- User Datagram Protocol
- User experience
- User interface
- User interface markup language
- User story
- User-centered design
- Userscript
- UTF-8
- UTF-16
- UTF-32
- UTM parameters
- Validator
- Value (computer science)
- Value-driven design
- Variable (computer science)
- Variable fonts
- Vector graphics
- Velocity (software development)
- Verification and validation
- Version control
- vi
- Viewport
- Vim (text editor)

- Virtual inheritance
- Virtual LAN
- Virtual machine
- Virtual private cloud
- Virtual private network
- Virtual reality
- Virtualization
- Visual Basic for Applications
- Visual impairment
- Visual Studio Code
- Voice over IP
- Voice phishing
- VoiceOver
- VoiceXML
- Vue.js
- W3C Geolocation API
- WAR (file format)
- Waterfall model
- Web 2.0
- Web Accessibility Initiative
- Web analytics
- Web application
- Web application firewall
- Web beacon
- Web browser
- Web colors
- Web Components
- Web content
- Web Content Accessibility Guidelines
- Web crawler
- Web design
- Web development
- Web development tools
- Web feed
- Web framework
- Web IDL
- Web indexing
- Web navigation
- Web Open Font Format
- Web page
- Web performance
- Web platform

- Web portal
- Web resource
- Web service
- Web standards
- Web Standards Project
- Web storage
- Web syndication
- Web template system
- Web tracking
- Web typography
- Web worker
- WebAssembly
- WebAuthn
- WebDAV
- WebGL
- WebKit
- WebM
- Webmaster
- Webmention
- WebP
- Webpack
- Website
- Website wireframe
- WebSocket
- WebVTT
- Well-formed document
- Wget
- WHATWG
- White-box testing
- Whitelisting
- Whitespace character
- WHOIS
- Wide area network
- Widows and orphans
- Wiki
- Window-Eyes
- Windows Aero
- Wireless Application Protocol
- Wireless Markup Language
- Wix.com
- WordPress
- Workaround

- World Wide Web
- World Wide Web Consortium
- WorldWideWeb
- Wrapper function
- Write once, run anywhere
- WYSIWYG
- X.509
- x-height
- XForms
- XHP
- XHTML
- XLink
- XML
- XML Schema (W3C)
- XML-RPC
- XMLHttpRequest
- XPath
- XPointer
- XQuery
- XSL
- XUL
- Yahoo! Query Language
- YAML
- Yandex Browser
- Year 2000 problem
- You aren't gonna need it
- YUI Library
- Z shell
- Zero-based numbering
- Zero-configuration networking
- Zip (file format)
- Zombie cookie
- Zone file

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- [DOM onevent handlers](#)
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- [Dynamic typing](#)
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- [Empty element](#)
- [Exception](#)
- [Falsy](#)
- [Fetch API](#)
- [First contentful paint](#)

- First CPU idle
- First input delay
- First Meaningful Paint
- First paint
- First-class Function
- Flex
- Flexbox
- font-display
- Function
- function
- Global object
- Global scope
- Global variable
- Graceful degradation
- Grid
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- Hoisting
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- Inheritance and the prototype chain
- Intersection Observer API
- Intrinsic Size
- Jank
- Local scope
- Long Tasks API
- Main thread
- Mobile First
- Null
- Number
- Origin
- Page load time
- Page prediction
- prerender
- Promise
- Pseudo-class
- Pseudo-element
- Pseudocode
- Quirks Mode and Standards Mode
- ReferenceError
- Reflow
- Replaced element

- Request header
- Response header
- Responsive design
- REST
- Routers
- Scrollport
- Secure contexts
- Shadow tree
- SharedWorker
- Shorthand properties
- Snap positions
- Speed index
- Spread syntax
- Strict mode
- Synchronous
- The stacking context
- this
- Time to interactive
- try...catch
- undefined
- User-Agent
- Using custom elements
- Vendor Prefix
- Visual formatting model
- Web fonts
- XSLT
- yield

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