

Thomas Weber & Anna Wiehl

**Interactivity at the core**  
Teaching i-docs through responsive  
interactive online-resources

TraMeTraMi, 9/2023

This online publication has been funded by AVINUS e. V. and is part of the journal *TraMeTraMi*, published by Thomas Weber.

TraMeTraMi stands as an abbreviation for **Transmedial Transmissions** and deals with different forms of digital knowledge transfer.

### **Bibliographic Information by the Deutsche Nationalbibliothek**

A catalog record has been requested for this book. For details, please check: <http://dnb.d-nb.de>.

TraMeTraMi, 9/2023

ISSN: 2752-230X

DOI: <https://doi.org/10.5281/zenodo.8215845>



This work is licensed under a “[Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International](https://creativecommons.org/licenses/by-nc-nd/4.0/)” License.

© AVINUS Verlag 2023

Sierichstr. 154

D-22299 Hamburg

[www.avinus.de](http://www.avinus.de)

All rights reserved

Recommended citation

Weber, Thomas; Wiehl, Anna (2023). "Interactivity at the core. Teaching i-docs through responsive interactive online-resources". *TraMeTraMi* 9/2023.

<https://trametrami.avinus.org/publikationen/9-2023>.

DOI: <https://doi.org/10.5281/zenodo.8215845>



## Introduction

Interactive non-fiction, experiential documentary, database documentary and VR/XR/AR factuais, immersive non-fiction and polyphonic documentary – the names of currently themselves – and most often, phenomena of the expanding field are summarized under the notion of ‘i-docs’ (short for interactive documentary).<sup>1</sup> In the last few years, various of these interactive documentary practices have appeared in digital media, and due to the possibility of active participation in discourses, i-docs hold great potential for mutual understanding, pluri-perspective thinking as well as the creation of complex knowledge ecologies. In this sense, they do not only bear great potential for documentary filmmakers as a vivid, experimental arena with plenty innovative modes of expression; they are not only highly interesting from a media-scholarly perspective due to the convergence of forms and formats, (sub-)genres and medial manifestations of ‘the Documentary’ which is becoming more and more multi-media and hybrid; foremost, however, beyond these aspects which make i-docs exciting as a field for artistic

---

<sup>1</sup> For more detailed information on the ‘evolving practices of interactive documentary’ respectively ‘new documentary ecologies’ as ‘emerging platforms, practices and discourses’ cf. the anthologies of the same titles, Rose et al. 2017 and Nash et al. 2014; for further information on the development of interactive documentary practices, cf. Aston and Gaudenzi 2012; Weber 2021; Ochsner et al. 2016; Jihoon 2022; Miles 2018).; thinking through different possible meanings of the *i* in the terminology *i-docs*, Patricia Zimmermann suggests that with the diversification of manifestations of – in the broadest sense – *interactive* documentary practices and formats, the notion should be widened. As i-docs by now represent ‘a vortex of ideas spanning “information”, “interactive”, “immersive”, “intention”, “innovation”, and “indeterminacy”’, ‘flip[ping] the traditional vertical structures of media production into horizontal, iterative, never finished modes that reify the user as a participant and co-creator’ (quoted in Aston and Odorico 2018, 65).

experimentation and research, interactive documentary also can be used as ‘tool for thought’ (2018) and as a tool for teaching: for teaching documentary theory and history in general, but especially for teaching developments in the field of *interactive* documentary.<sup>2</sup> Still, though the scientific community is excited by the affordances of the wide spectrum of manifestations, this emerging field of documentary media is still a blind spot in many curricula.

In this contribution, we will take our expertise in the design of interactive resources for teaching (interactive) documentary to then rise our experiences on a meta-level of reflection. By doing so, we will derive more general recommendations how to set up didactic scenarios to teach documentary in the 21<sup>st</sup> century – especially given the challenges that the field is becoming more and more hybrid, multi-media, digitalized and dynamic and poses various challenges for researchers, teachers and students. Hence, in this contribution we touch upon different aspects:

- We consider both the potential and the challenges when teaching interactive documentary through interactive resources – and which complications on might face. From this point, we’ll sketch possible solutions how to address

---

<sup>2</sup> Most of the reflections of this contribution are based on our experience when designing and implementing the interactive online course *DiD – Das Dokumentarische im Digitalen (The Documentary & The Digital)*. Based on the online course *Dokumentarischer Film (Documentary Film)*, which was realized in 2018 as part of a teaching research project at the University of Hamburg and the scholarly findings of the research project “Digital Documentary Practices” at the University of Bayreuth, this course sets out not only to analyse and to contextualize phenomena; rather, in cooperation with the non-profit association AVINUS, it also applies findings from research on i-docs in teaching this emerging field and experiments with methodologies which are arising in the field.

legal, technical and didactic problems. Beyond current concerns, we try to anticipate future concerns – especially with regard to teaching documentary forms which are no longer (primarily) screen-based such as virtual or mixed reality non-fiction or issues which regard the sustainability of educational material.

- We propose different methods how to present interactive documentary material in ways that students are introduced to essential theories and concepts of interactive documentary as well as seminal examples.
- We present methods how – in addition to factual knowledge transfer – students are encouraged to develop analytic as well as (co-)creative competence. We therefore introduce technical solutions (the use of i-frames and h5p and creating interactive spaces with direct feedback), didactic strategies (among others reflecting the interactive features of i-docs into the educational setting) as well as more universal outlines of the course by including participatory elements and aspects from learning through engagement.
- And we discuss possible venues to encourage students to make first steps in conceptualizing and designing projects in this field themselves and by gaining deeper insight through participation in the design of the course.

In this sense – to introduce only the most important results at this point –, essential ‘take-away lessons learnt’ from our own experience are:

1. Exploit the affordances of new media if you want to teach new media documentary format.

In order to introduce students to the affordances of emerging documentary practices – particularly manifestation of ‘the Documentary’ in ‘new’ media as well as multi-media, non-linear and interactive forms – it is essential to preserve the affordances of the configurations when bringing them into the educational setting. Hence, the expanding spectrum of i-docs can be best approached by providing educational resources which are set up *within interactive environments themselves* and which take advances of the affordances of ‘new media’ and its ‘new language’ (Manovich 2001), ‘computational logics’ and ‘database aesthetic’ (Manovich 2000; 2017) – i.e. for example in form of interactive online courses which allow direct user-to-system-interactivity and which are based on modularity and variability of lessons and units;

2. Adopt new media’s adaptability to teach emerging documentary phenomena.

In order to cope with the fluidity of the expanding field, design course outlines that are themselves dynamic – e.g. by means of responsive design which adapts to students’ needs and which incorporates dynamic websites from other hosts if these are used as examples or repositories. Hence, a smart combination of technical and didactic solutions can help to face challenges in preserving the interactive affordances of i-docs *and* put them at the service of Higher Education.

3. Embrace the complexity of the subject by drawing from the broad spectrum of didactic strategies which can be deduced from i-docs production modes.

Given the complexity of the emerging field, the use of mixed-methods-approaches can encourage students to access configurations with which they are (so far) unfamiliar e.g. by

offering them a combination of introductions to essential theories and key concepts with an exemplary analysis of paradigmatic projects and 'hands-on' sections.

4. Adapt the logics of 'Learning through Engagement'.

Invite students to participate in the course design and contribute interactive content to enhance their openness to engage with complex issues and 'drill deeper' into complex issues.

5. Co-create in designing and realizing sustainable learning environments – but stay concise.

In order provide profound and up-to-date high-quality teaching resources, invite colleagues and academic practioners from the field to bring in their specific interest and contribute through their experience and expertise to the course content. Still, in order to be open for co-creative impulses, it is essential to define learning goals as concisely as possible and to set up a consistent instruction alignment right from the outset.

Or – as a kind of meta-lesson we learnt:

Appropriate the concept of 'networked|networking' (Wiehl 2019)<sup>3</sup> which is essential to understand i-docs both in their epistemology and ontology and adopt

---

<sup>3</sup> Conceiving of emerging documentary practices in the digital as networked|networking implies that one has to consider these media configurations as highly complex assemblages with immaterial and material, virtual and physical components which are characterized by the fact that they are deeply 'networked'. This 'networked-ness', however, is anything but static; rather, it lives from active networking practices of (human as well as non-human) agents. Thus, i-docs as epistemic media cannot be uncoupled from their dynamic ontology as 'living' configurations.



participatory and co-creative practices which are key concepts in the realization of many currently emerging i-docs in *teaching* interactive documentary.

This does not only present an elegant self-reflexive move; rather, it enhances the depth of understanding, it promotes the students' engagement, and it contributes to the inclusiveness of academic learning and teaching.

Thus, this contribution contains a double twist. As a point of departure for more general reflections, it presents a close analysis of the methodologies applied in one innovative didactical format in teaching i-docs through – the online-course *The Documentary & The Digital*. This course, which is itself interactive, has been developed within the research project *DiD – Topical paradigm shifts and the potential of emerging practices to participate in public discourses* and hence combines latest research in the field of i-docs with the didactic impetus to implement this multifaceted field in the syllabi of teaching documentary in Higher Education.<sup>4</sup>

The first twist hereby resides in the fact that – being itself an interactive configuration which qualifies as a networked epistemic network – the online-course introduces students to interactive documentary practices, ranging from web-documentaries, smartphone documentaries, VR and XR non-

---

<sup>4</sup> The online course *DiD – The Documentary & The Digital* emerged from the BMBF-funded research project [DiD – Digital Documentary Practices](#), standing at the core of a network of cooperations with internationally renowned researchers in the field. Of particular importance were the cooperation with the [dokART Laboratory Hamburg](#) and the [AVINUS Akademie](#), the [Polyphonic Documentary research group, i-docs.org](#), and the [korsakow institute](#).

fiction to interventionist documentary practices. Hence, we show how teaching i-docs in a digital (or hybrid) environment cannot only encourage students to engage with specific documentary formats; we also explain how one can foster digital competences as a kind of ancillary effect.

The second twist regards the fact that insights from interactive documentary making can be used to open environment for teaching and to invite students to develop multimodal digital competences and to experiment with new forms of expressivity. Which factors contribute to the implementation of an environment in which the active participation as well as the collaboration of students in the *per se* interactive online medium are stimulated? What does it take to induce situated experiential learning by doing?

This being said, the following reflections are less a description of a specific case than an attempt to summarize the results and empirical knowledge in such a way that they offer others insight and inspiration beyond the challenges of this course. Still, before drilling deep into questions on how to teach emerging documentary practices, it makes sense to shortly set the field – with a specific focus on the affordances of i-docs. Revisiting our experiences when setting up the online/blended learning course on *The Documentary & The Digital*, we parallelly reflect on how to approach didactic, methodologic, theoretical, and practical problems and transfer them into more general recommendations; and though we are far from suggesting one-fit-all solutions, some learnings, conclusions, there are several inspiration for the future of teaching i-docs in Higher Education.

## **The interactive online course *DiD – The Documentary & The Digital*: teaching i-docs with a double twist**

### **Defining learning goals and instruction alignment**

Approaching i-docs in teaching, it is essential to offer more than a mere overview of the emerging scene or an introduction to the characteristics of certain individual phenomena. Rather, to really understand forms and formats, practices and modes of expression, it is important to stress right from the outset that interactive documentary practices are always embedded in other complex, dynamic epistemic and medial ecologies and should therefore be seen in the context of a range of other practices 'online' but also 'on-ground' (Wiehl 2019) from a synchronous as well as diachronous perspective.

Starting from the premises that one needs to take into account the multiple dynamic entanglements of i-docs within complex media ecologies, and always having in mind that interactivity and procedurality are vital affordances of i-docs and that therefore, it is essential to preserve these in studying and teaching i-docs, it is exactly this procedurality which presents one with challenges when bringing i-docs 'into the classroom'. As this fact is certainly one of the crucial keys when it comes to approaching i-docs in their complexity in class, this point cannot be overestimated.

Hence, the overarching goal of the online course we designed is already formulated in an introduction preceding the course: it is intended to introduce students to documentary practices in, with and through digital media – i.e. it invites them to explore phenomena that are probably largely unknown to them. In order

to increase their motivation to engage in this topic, the introductory units outline the relevance of the topic and contextualize manifestations of emerging documentary practices vis-à-vis practices, genres and formats students might be more familiar with.

Therefore, similarly to the first part of this contribution, the course starts by describing the point of departure (“The Documentary: Genre and Cultural Technique”) and setting the field (“The Documentary in the Digital Transformation”) to then deduce major learning goals (“Learning Objectives”). At the same time, the major challenges in the design of the course as well as in teaching i-docs in general are revealed to the students. Transparency in this place does not only enable students to adjust to the following learning objectives and methods and to achieve the best possible learning success; it also allows them to work through the course according to their own priorities and learning style. In addition, laying open the complexity of matters might encourage students to carry on when standing at the edge of dropping out for reasons of frustration when entering the field for the first time. This might especially be the case as i-docs break with many assumptions students might have when enrolling into a program on documentary practices – phenomena which, however, might turn out to be quite different from ‘traditional documentary’.

Likewise, these introductory remarks can create a constructive transparent and respectful learning atmosphere, which is extremely valuable if the course is employed in blended learning or flipped classroom scenarios – i.e. scenarios without any direct personal contact between students and teaching person at the launch of the course. In this sense, it is important that the

mandatory material which needs to be prepared for lessons is presented in a clearly structured way (which is e.g. reflected in the layout of the online course), and that it comprises consistent instruction alignments so that the learners know what is expected from them. The same goes for the various additional material which is offered in order to enable students to go deeper into aspects and to examine aspects that caught their interest in the general course presentation more in detail. Still, providing a selection of valuable or outstanding material in the 'digital plenitude' (Bolter 2019) shall not deprive students from the possibility to acquire research techniques themselves. Moreover, 'transparency' in this context also includes pointing out the constraints the possibilities that the course brings with it and the methodological (and hence often also didactic) challenges one faces when addressing i-docs. This balance of a consistent, stringent didactic design, formal directness and scrutiny on the one hand, and the invitation for engagement and a curiosity towards a rather complex topic on the other hand, then, opens space for meaningful discussion in class. It enables didactic scenarios where students can bring in their specific interests and are 'seen' as adults on eye-level, where students can develop ideas by themselves in self-organized formats, where teamwork can flourish, and in which professional as well as individual growth is possible – not only through knowledge transfer but also in form of the encouragement of meta-skills.

Thus, as will be seen in the following, the introductory sessions of the course in which all these aspects are laid open prepares the ground for openness and joy for experiment, interactivity and participation – all of them being key to dive deep into the complex worlds of knowledge and to develop multimodal

analytic and creative competences when approaching phenomena of digital cultures.

## **Designing the central layout of the course**

Once the central tone and the main goals of the course have been set, the question arises during conception as to how the course would have to be structured in order to achieve these goals. In view of the complexity of the expanding field and given the fact that phenomena are deeply interwoven in various other (medial) practices of digital cultures, the selection of the essential (and facultative) content and its didactic arrangement is certainly not an easy decision.

When designing the *DiD* course, we opted for a modular design. This rather flexible structure combined with numerous embedded and linked cross-references enables students who complete the course in self-study to choose their own paths through the material and thus open up content. If the course is used in blended-learning scenarios, modules can be arranged by teachers – who can then decide which elements should be mandatory and which are additional material; still, crosslinking between these two categories is possible. In this sense, the material which is employed to teach i-docs as networked|networking phenomena is itself deeply networked; the subject matter and didactic methods converge: Similar to non-linearity, which is one of the central characteristics of numerous interactive documentaries, the networked affordance of digital media for hypertextuality is also made usable here for individual learning success. In this respect, the structure that the

course ultimately proposes is a guideline, but units can also be worked on independently of each other.

### **Confronting different notions of ‘the Interactive’ and non-linearity: Transferring the interactive dynamics of i-docs into an educative resource and environment**

As already sketched above, one of the central questions when teaching i-docs is certainly how the most decisive affordances of interactive documentary as digital media assemblages can be transferred into an educative format. Still, as this question is probably one of the most crucial ones, it is worth going into depth at the point. Foremost, this regards ‘the Interactive’ as the name-giving characteristic of i-docs. ‘The Interactive’ with a capital ‘I’ hereby indicates the fact that we are currently facing a multitude of concepts cavorting in the semantic field of ‘interactivity’, and bringing forth a multiplicity of classifications which are rooted in various discourse traditions. Hence, we here suggest to distinguish between ‘the Interactivity’ with a capital ‘I’ as a macro phenomenon and its different manifestations with their specific logics – among them *interactivity* as user-to-system-interactivity, *interaction* (which in the following will designate the interrelational exchange between human agents), *participation* (which bears a creative component) and *co-creation* (which entails the engagement in more global processes of decision making and hence a ‘political’ dimension).<sup>5</sup>

---

<sup>5</sup> For literature-surveys and meta-studies regarding research performed in this field, cf. among others (Dubberly and Pangaro 2009; Downes and McMillan 2000; McMillan 2006; Jensen 1999). For different dimensions of interactivity in

When approaching i-docs in an educational setting, key questions therefore are: How can the dynamic, interactive nature of i-docs be preserved? How can theories and concepts be made comprehensible, how can their exemplification together with methodologies be vividly presented in cased studies of paradigmatic projects – and how can analytic as well as interpersonal, co-creative design competences be fostered?

The first and probably most important step can be to deviate from linear paths in textbooks for teaching (linear) documentary (film). When conceptualizing the online course, we precisely did *not* want to write about non-linear configurations in a linear text; rather, we tried to analyse interactive contents and dynamics in a dynamic, interactive didactic environment comprising a responsive design; and we aimed at combining theories with concrete phenomena and practices – including ‘hands-on’ section in which students can ‘play around’ with paradigmatic projects themselves, explore the expanding field and – being inspired by these individual experiences with the material – start developing own project ideas. On the one hand, there are numerous examples embedded via so-called i-frames right in the course; this allows one to preserve the interactivity of the pages. I-frames not only serve as windows that allow a glimpse at material from other websites; rather, they are portals through which one can enter these projects and interact with dynamic content there. In this way, configurations that are exemplarily analysed in the text passages can be – parallelly – explored within in the learning environment. With this impetus, we tried to make i-docs comprehensible, intersubjectively analysable,

---

documentary practices in particular, cf. among others (Gantier and Labour 2015; Gaudenzi 2013; Gaudenzi 2014; Nash 2014; Gantier and Gaudenzi 2018).



based on theoretical and methodological knowledge accessible, and still individually experiential as interactive phenomena with their innate procedurality.<sup>6</sup>

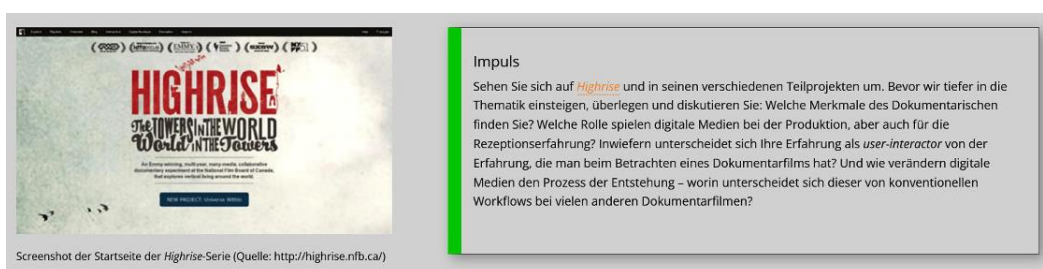
In the *DiD* course, for example, we therefore chose a double-tracked approach, combining text, videos, graphs and diagrams with interactive material in order to interlink theory and practice, knowledge transfer and space for experience. Throughout the course, we integrated various case studies. Seminal projects are step by step analysed in explanatory texts which run parallel to i-frames in which the respective i-doc websites are embedded. In one of the first units of the course, for example, we introduce a highly complex and multi-layered project – the [Highrise](#) series (CAN 2009-2015) –, which consists of more than 20 sub-projects and 6 major interactive, web-based documentary configurations. All of the follow different logics of ‘the Interactive’: each project is based on some combination of interactivity, interaction, participation and co-creation, and all of them address issues of local and global concern in order to relate them to a ‘glocal’ awareness of social issues (cf. Cizek and Rose 2013) – and still, the projects differ in approach, scope, combination of media, impact and outcome. Though students might realize that the configuration bears great potential for analysis, it might be tricky to find the right entry point how to approach it.

For example, it needs to be clarified how different forms of participation and the pluri-vocality affect basic documentary concepts such as the documentary argument. What happens, for

---

<sup>6</sup> As outlined above when addressing legal and technical constraints, this of course is not always possible. Still, wherever feasible, it certainly is the most vivid way to approach i-docs in educational settings.

example, if discursive spaces are opened up for participation, in which traditional ‘documentary subjects’ are then able to take an active, creative part in the production of the documentary? How can one discern different forms of participation and co-creation? At what different levels and stages in the production workflow do they take place, and how far do they affect the notion of the documentary voice and the documentary truth claim? Are we still dealing with a form of documentary-making or are we rather entering the field of activist media – or are the lines between the two maybe no longer discernable?



The image shows a screenshot of the Highrise website on the left and a text prompt on the right. The website screenshot features the title 'HIGHRISE' in large red letters, with 'The TOWERS IN THE WORLD' and 'World IN THE TOWERS' below it. The text prompt is titled 'Impuls' and contains a paragraph of German text asking students to explore the Highrise website and its sub-projects, reflecting on the role of digital media in documentary production and reception.

Impuls

Sehen Sie sich auf *Highrise* und in seinen verschiedenen Teilprojekten um. Bevor wir tiefer in die Thematik einsteigen, überlegen und diskutieren Sie: Welche Merkmale des Dokumentarischen finden Sie? Welche Rolle spielen digitale Medien bei der Produktion, aber auch für die Rezeptionserfahrung? Inwiefern unterscheidet sich Ihre Erfahrung als *user-interactor* von der Erfahrung, die man beim Betrachten eines Dokumentarfilms hat? Und wie verändern digitale Medien den Prozess der Entstehung – worin unterscheidet sich dieser von konventionellen Workflows bei vielen anderen Dokumentarfilmen?

Screenshot der Startseite der *Highrise*-Serie (Quelle: <http://highrise.nfb.ca/>)

**Screenshot from the online course *DiD – Das Dokumentarische im Digitalen*,  
“The ‘new’ documentary nexus, ‘the Documentary’ and ‘the Digital’”**

**The prompt respectively ‘impulse’ invites students to explore embedded and linked material and to reflect their experiences, guided by some key questions.**

Prompts as well as the links (set in orange here) invite students to work with the configurations themselves. To prevent students from losing their focus when exploring configurations, specifically formulated tasks provide them with a read thread and help them direct their attention to particularly relevant aspects. Here, students are for example asked to research projects on the *Highrise* main web site and visit some to the sub-projects. Before going deeper into the topic, students are invited to think about and discuss which characteristics of documentary

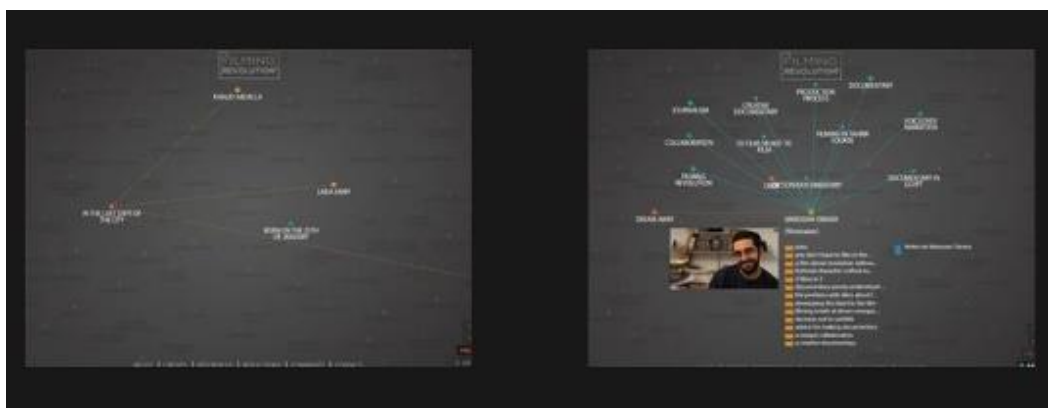
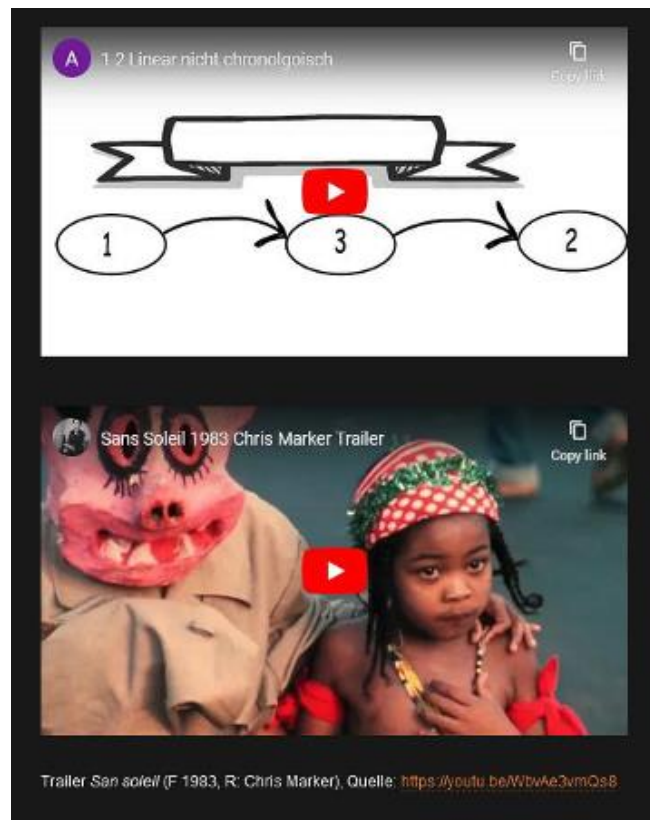
are discernible within the different sub-projects and which role digital media do play in production, but also for the user experience. Moreover, as further aspect for consideration and hence a point for discussion in class can be a comparison between the students' experience so far with social issue documentary and with this specific, non-linear, interactive and participatory configuration. How does digital media change the process of making it – how does it differ from conventional workflows for many other documentaries?

In order to find (then theoretically framed) answers to these questions, students are provided a step by step textual analysis, which allows them to 'peel the onion' of 'the Interactive' (Ryan 2005). This analysis, however – and this is crucial at this point – is accompanied by various interactive elements. After a more general opening impulse to get students engaged with the material, for example, each 'layer' and each dimension of 'the Interactive' can be explained in detail, contextualized within theories of interactive documentary and an introduction to production methods as well as analytical methodologies. In addition to the written text, however, each point made can be followed by directly going through the configuration alongside the analysis oneself. This allows students to experiment with e.g. different branches of the non-linear narrative themselves.

Small tasks and more complex assignments which *per se* require activity – in this case *interactivity* with the material – do not only activate students; rather, they can also serve as nuclei for further engagement as will be seen in the following – e.g. as inspiration for designing own projects or applying i-docs production methodologies in different (also academic) contexts.

In the case of approaching non-linearity – a topic which most students find extremely difficult and struggle with – we proceeded in a similar way. Encouraging an openness to engage with this specificity of i-docs is extremely important. This is even the more so the case as most often, students might be familiar with narrative theories of *linear* film or with the specificity of complex narration in *fictional* film such as e.g. in mind game movies etc. – but these, differ quite tremendously in their logic from non-linearity in the field of documentary. Hence, it is worthwhile, dedicating a longer unit to this topic.

As in the case of different layers and dimensions of ‘Interactive’ with its various implications, we thus included a whole unit on non-linearity in the *DiD course*. And again, we opted for a didactic combination of detailed (textual) descriptions and interpretative analysis, screencasts, flowcharts to make things intersubjectively comprehensible and further (partly videographic) material where applicable due to the complexity of the production process. Foremost, however, we embedded i-frames which allowed students to directly ‘jump’ into the material and explore non-linearity themselves.



Screenshots from the online course *DiD – Das Dokumentarische im Digitalen*,  
 “You are leaving the linear sector’. Non-lineares Erzählen zwischen  
 Interaktivität und Dramaturgie“

In a multimodal educational approach, graphs, screencast, short explanatory text passages and videos are combined with concrete examples (below) which are embedded directly in the course. This allows a through engagement with the complex theme of non-linearity in documentary configurations.

Screencasts and small schematic animations can be used to supplement analysis in form of text. At least equally important, however, is to enable students to individually work with non-linearity in the exemplary projects embedded in the course and to reveal paradigmatic phenomena within the configurations. Here, again, it is advisable to guide students through the experience and provide hints as to entry points and essential 'nods' in e.g. branching scenarios or 'fishbone structure narrative'. This prevails students from dropping out for reasons of frustration with e.g. (seemingly) 'dead-end' narratives. Moreover, this allows teacher to introduce theories, concepts and concrete projects as vividly as possible and yet to allow students to explore specific exemplary aspects themselves, still guaranteeing that points which are essential for a more systemic understanding of the field are grasped and students are able to situate singularities with our larger contemporary media ecology – hence to go beyond the single project.

Drawing on Dewey (1997), who emphasises that experiential learning always combines active as well as passive elements, we thus try to provide students with an interactive individual learning experience that includes a theory-based level of reflection. Hence, we try to go beyond a mode of merely 'playing around with' or paddling to induce substantial learning while still fostering maintaining an experimental open-mindedness and playfulness:

On the active hand, experience is trying – a meaning which is made explicit in the connected term experiment. On the passive, it is undergoing. When we experience something, we act upon it, we do something with it; then we suffer or undergo the consequences. [...] The connection of these

two phases of experience measures the fruitfulness or value of the experience. Mere activity does not constitute experience. It is dispersive, centrifugal, dissipating. Experience as trying involves change, but change is meaningless transition unless it is consciously connected with the return wave of consequences which flow from it. When an activity is continued into the undergoing of consequences, when the change made by action is reflected back into a change made in us, the mere flux is loaded with significance. (Dewey 1997, 145)

Or in other words: If one transposes Dewey's claim (which confers to learning processes in general) to teaching documentary in the 21<sup>st</sup> century in higher education, and if the specific field of interest are interactive, dynamic documentary assemblages, the maxim to interlock information and knowledge transfer, methodological training and contextualization with experimental and (co-)creative experiences is more relevant than ever to encourage the development of complex multimodal competences – an aspect which shall be addressed in the following.

### **Facing an expanding field and phenomena characterized by their ephemeral nature**

Despite the impetus to embed i-docs as interactive experiential resources directly in learning-teachings-environments, this procedure is not always possible – for different reasons: First of all, incorporating websites by third parties can cause problems related to copyright and data protection issues. Secondly, some projects are behind payment barriers, others are not primarily

screen-based and can therefore only be integrated via further media mediation (mostly in the form of videos). And last but not least, numerous projects that were 'milestones' for the development of the 'genre' (if i-docs can be described as such) are now no longer available online or which – in the case of VR/AR configurations – had only been accessible in exhibitions or can be experienced *in situ*.

Hence, when teaching i-docs while preserving their most prominent affordances, one is confronted with a whole series of interlocking questions: Given the often ephemeral content, short-lived media interventions and, moreover, the constant emergence of new projects, how can one ensure that the spectrum of phenomena is at the state of arts? How can one design the course in such a way that the selection of examples reflects, on the one hand, the historical genesis of practices and phenomena, but at the same time approach recent and contemporary evolving tendencies? And how can one render the specifics of each medium experiential – for example, in the case of 360° documentaries or highly non-linear configurations? In short: challenges are ranging from didactic concerns to legal issues, questions of how to set the academic focus as well as technical issues.

The didactic challenge is above all to give students access to the films in a way that is appropriate to the media and, in particular, to do so in sufficient quantity (i.e., precisely not only at the level of individual pieces, but in a way that allows more extensive corpora to become visible). This results in a series of follow-up challenges – multiplied, so to speak, by the increasing number of films used: that of legal access to this material, which is usually protected by copyright.



Accessibility can be made possible via online courses, but not within the framework of an open-access policy; rather, a number of restrictions and peculiarities must be taken into account, such as, for example, a multitude of different national legal norms in the case of international addressing; the fair use principle – as is common in the USA – is by no means standard in all countries; the upload filters of YouTube and other video platforms are also configured nationally in each case and follow different norms. Consequently, one way out of this dilemma is to exploit the right of citation and cleverly use the allowed snippets in the online courses. This is not least a technical challenge: on the one hand, the conception, programming and design of the online courses requires a certain minimum of technical skills of the authors (even if they are supported by programmers), on the other hand, it also requires competences in documenting audio-visual material (films or interactive websites) in such a way that they convey an impression of the source material that allows to grasp the essential character of it, i.e. an audio-visual evidence of the argumentation. This includes, for example, screencasts that give at least a rudimentary, but media-adequate impression of their aesthetics and functionality – even if or precisely because the original material is no longer available.

As far as the latter is concerned, it can be wise to follow tech-news and take precautions by preserving and archiving material. A kind of worst-case scenario occurred at the end of 2020 for the scientific community researching i-docs: On 31 December 2020, Adobe ended the support of its Flash Player – a technology that was used in early and now canonical i-docs. This meant that a large part of the projects that had played a decisive role could no longer be actively used after this date. In the case of the

announced 'end of life' of the Flash Player, we therefore started 'archiving' some of the seminal i-docs before their 'death'.

One solution when facing the 'time-out' of configuration or in cases when it is not possible to integrate projects which can be regarded as milestones in the evolution of i-docs directly in the course is to create screencasts and flowcharts and combine these in ways that the specific affordances of the projects are preserved as well as possible. Building on a mixed-methods approach by Jasmin Kermanchi (2020), one way is e.g. to combine screencasts and flow charts – i.e. recording different paths and options when interacting with the configuration via screencast recorders (available as freeware or integrated in most video editing tools) and by creating surveys of relational options and linked elements.

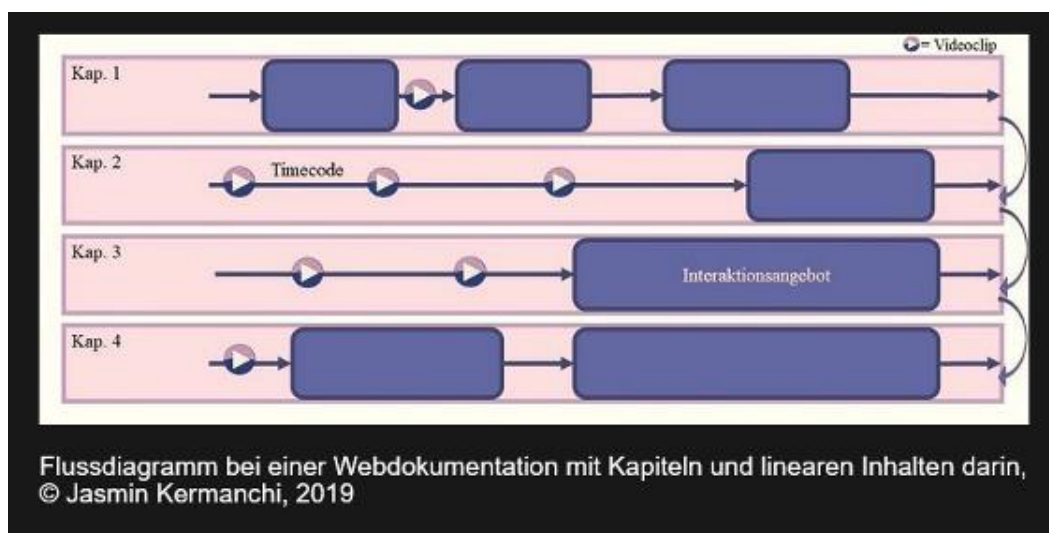
At this point, one might ask oneself: Why this intricate procedure, if so far stills and transcripts in teaching documentary film have sufficed (at least in most cases)? As already sketched, in order to analyse i-docs in their media-ecological embeddedness and networked|networking, it is essential to both address audio-visual, filmic elements and interactive, interactional or participatory elements in their interplay. Though this complexity – also in terms of praxeological aspects – applies for documentary projects in general, addressing this aspect is of particular importance in the case of i-docs, which are *based* on 'the Interactive' and in which modes and modalities of interactivity and interaction, participation, collaboration and co-creation are integral parts for understanding configurations in addition to product analysis.

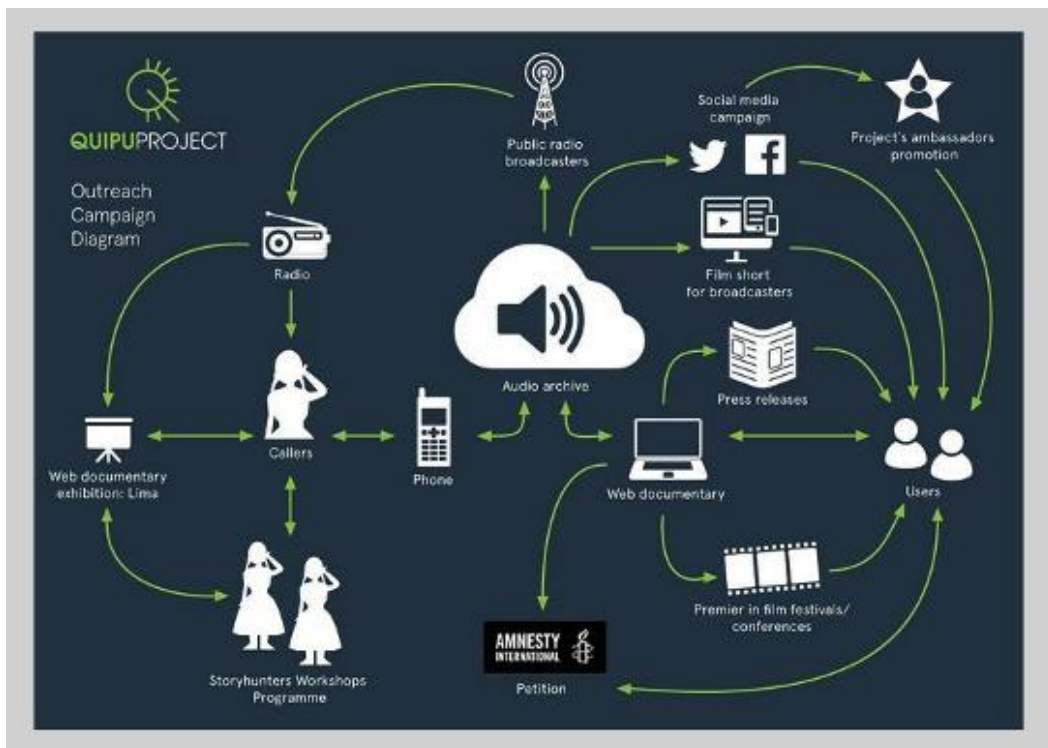
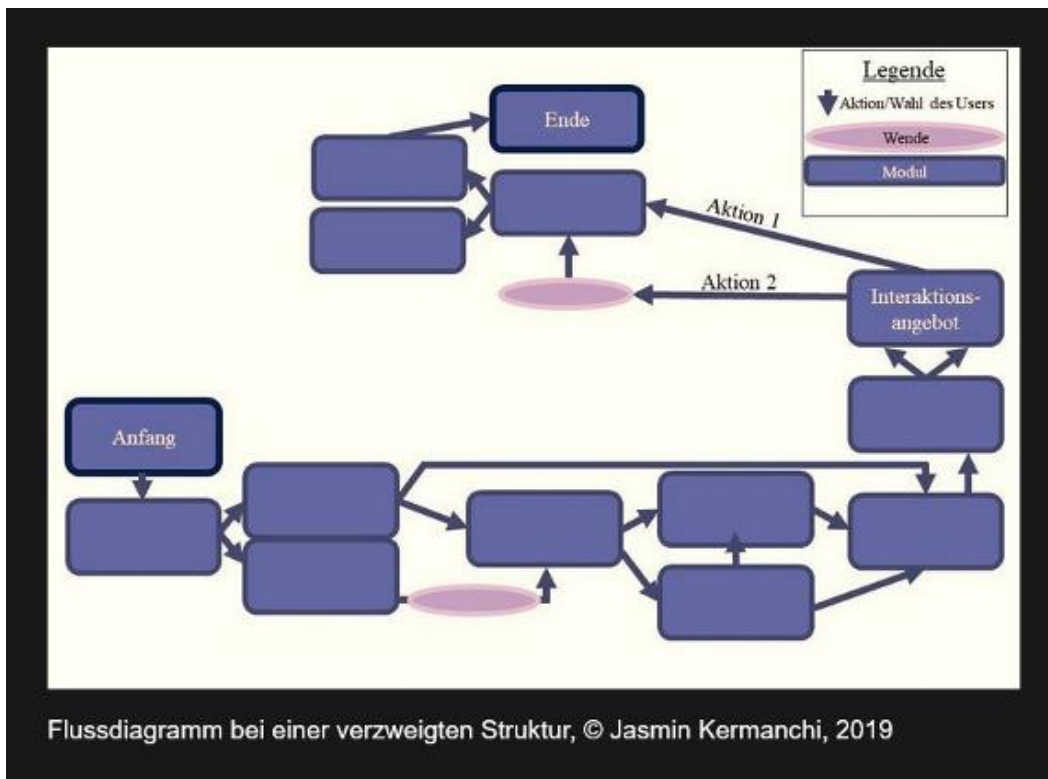
As Kermanchi points out, it is therefore essential for the analysis of i-docs to differentiate between form of 'the Interactive' – also

when these occur in combination – to find suitable methodological approaches. For while analytical tools and methodologies have already been developed available for examining the significance of images, videos and texts, and the analysis of persistent segments can initially be carried out in isolation, the question arises as to how forms of ‘the Interactive’ and dynamic elements based on variability can be approached. This regards both the analysis on the micro-level of i-docs (e.g. options offered through interface design such as drop-down menus) and the macro-level. Key questions are in this regard: In which context is the interaction offer presented? What are the consequences of the users’ interactions and alternative choices – e.g. in the case of pluri-linear or even non-linear branching paths documentaries?

Practice has shown that it is necessary to test and compare different options within the non-linear i-docs and to explore different ‘paths’, similar to the possibility analysis Niklas Schrape (2012) describes for computer games. This especially holds when i-docs are discussed in the classroom. Not only are ephemeral configurations ‘preserved’; rather, only then it is possible to analyse complex, interrelated, and dynamic configuration as a temporarily fixed textual survey. This procedure, then, allows teachers to introduce essential issues of analysis such as the problem to determine in which amount agency and control is handed over to user-interactors of i-docs and participating subjects within complex projects: How are they addressed and engaged within the configuration? And – even more important: Which purpose do different forms of ‘the Interactive’ serve? Is it rather for means of persuasion? Is it for increasing personalisation? Foremost, however, it becomes possible to discuss one aspect which is of utmost importance as

we are dealing here with *documentary*: At this point, the specific affordances of i-docs can again be placed in the larger context of the documentary, discussing with the students how i-docs introduce new (?) ways to construct reference to reality. Of course, as in the case of linear documentary, this material can be supplemented by outreach diagrams, production minutes, reports etc. which might be insightful in the case of projects which are based on participation and co-creations. Extremely rich resources are available if projects were realized in cooperation with NGOs or with scientific support from academic research groups (as e.g. in projects such as [The Quipu Project](#) which was realized in cooperation with Amnesty International and the University of Bristol, or [Clouds over Sidra](#) which was co-produced by the UNHCR), final reports and empiric evaluation can be embedded in the course material to shed a light on the impact of projects.





Screenshots from the online course *DiD – Das Dokumentarische im Digitalen*, “The ‘new’ documentary nexus, ‘the Documentary’ and ‘the Digital’” – exemplary flowcharts (above) and outreach diagram (below).

Hence, to sum-up these reflections: Although this methodological approach ‘freezes’ the dynamics of i-docs, and though the interactive momentum is partly ‘lost’ in the linear format of the screen recording and flowcharts, this strategy goes beyond the mere archival scrutiny and the feasibility of scientific analysis. Not only does this procedure present the best compromise to give a basic impression of the aesthetics and functional logic of the configurations that are cannot be embedded, it also combines the above described practical constraints with a deliberate use of didactic reduction of the complexity of options in non-linear, interactive i-docs and places it into the service of a step-by-step approach to multi-layered dynamic configurations.

Once again – as laid out before, transparency can also help in this case. In this sense, it can be didactically valuable to make a virtue out of a necessity and overtly address the reflections which stand behind this procedure, as the problems described lend themselves to pointing out the inevitability of transcription and to introduce techniques how to proceed. By addressing challenges in a transparent way – challenges which students will face when researching i-docs, writing assignments of when they later decide to publish papers on interactive documentary – it is possible to introduce methodologies of how-to intersubjectively document one’s research and line of argument.

### **Chasing the ‘latest state of the art’, and conveying discursive topicality**

Even beyond the limitations imposed by technical and legal issues, one has to make a rigorous selection when teaching i-docs

in order to keep an i-docs syllabus concise. Most often, this turns out to be a difficult undertaking, since one of the maxims when comprehensively teaching i-docs should consist of tracing the genesis of practices, including seminal projects, *and* comprising (currently) rather marginal phenomena, which at the same time hold the potential to set impulses for future developments in the spectrum of i-docs.

One way out of this dilemma is – again – to ‘exploit’ the networked, interactive, fluid, dynamic nature of online environments. In this case, online archives and repositories are of utmost value not only for outlining the syllabus – but also as resources integrated in the course. Websites such the [MIT Docubase](#) – a constantly growing archive with short descriptions of the most current phenomena around i-docs – can be employed; or in the field of VR documentary, the site [VR Nonfiction: A Mediography](#) by colleagues from the research network at the University of the West of England, Bristol, is a valuable resource. The same goes for rather summarizing sites such as [Moments of Innovation](#) (also curated by the MIT open Documentary Lab) or showcases and repositories (e.g. [NFB interactive](#) or specific playlists provided by the [St. Andrews Centre for Screen Cultures](#)) or the program of festivals with special sections on emerging interactive documentary such as [IDFA](#) or [FLEFF](#).

How can this extensive range of showcases and the collections offered by curated websites be integrated in educational settings – not only as a fundus of examples but also coupled with educational assignments? One possibility is to design tasks in which students are asked to research these sites and independently examine projects. If the didactic setting is a blended-learning scenario, these tasks can be prepared via online

course instructions – with the corresponding websites directly embedded or linked – which is preferable as students have more freedom to follow their interests and drill deep into cases; otherwise, phases of groupwork with ‘hands-on’ exercises can be performed in class. Still, especially if used in blended learning or flipped classroom scenarios, it is essential to integrate the individual experiences of the ‘excursions’ into the general syllabus of the course and contextualize them with regard to the educational goals, i.e. to frame the findings by reflecting them in a joint discussion in class.

These didactic-methodological strategies not only serve to keep the content of the course up to date with the latest practice without having to constantly update content – especially examples and textual passages – manually. They also invite students, guided by impulse and assignments for further reflection, to conduct research on their own, bringing them into contact with recently topical discourses beyond the projects discussed in detail.

In addition, students acquire and consolidate skills that are central to their own academic work: Being able to identify suitable objects of analysis ranks among the competences that are essential, especially when it comes to developing lines of argument which go beyond the content that has been discussed in class.

A further challenge regarding topicality is the fact that the (scientific) community (which actually often includes academic practitioners) discuss latest theories as well as phenomena outside of classical forms of publication such as scientific journals; given the highly volatile field, monographs which usually reflect the state of affairs two or three years prior to now



are far away from keeping your finger on the pulse. How can students nevertheless find access to current discussions?

As in the case of integrating topical projects, one can again exploit the hypertextual affordances of the digital, networked teaching-learning environment: strands of discourse found on relevant sites such as *i-docs.org* or *immerse*, in reports and papers such as *Collective Wisdom*<sup>7</sup> or even argumentative positioning fought out in social networks are taken up and scrutinised – embedded as linked PDFs or, in the case of dynamic pages, again via i-frames as integrated (interactive) resources in the course.<sup>8</sup> This procedure is intended to ensure contextualised and competence-oriented knowledge transfer: within the course, positions are concisely presented; still, if necessary, the line of argument in its entirety can be retraced; different perspectives and positions can be put in relation to each other – and guided by further tasks, students can develop competences in taking an argumentatively supported position on these configurations themselves. Finally, it is possible in flipped classroom or blended learning scenarios to (re-)frame findings and address not only aspects of content, but also invite a reflection on how to approach often highly complex (hyper-)textual research literature.

---

<sup>7</sup> *Collective Wisdom*, e.g. describes itself as a “work in progress” and “[a] living, online version [...] open for community review and discussion” (Co-Creation Studio/MIT Open Documentary Lab 2019-ff). Though a printed version has recently been published, the agile environment of the Internet remains the much more interesting because ‘vital’ resource for discovering recent research.

<sup>8</sup> The working principle i-frames – a method to embed third party websites in one’s own site – and its didactic application of in the context of the online course and teaching i-docs will be explained in the following in more detail.

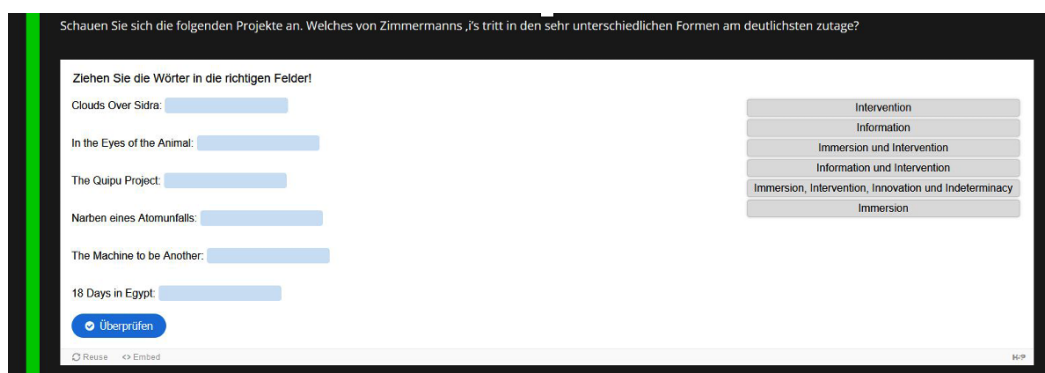
## **‘(Inter-)Action, please!’ – Revisiting forms of interactivity, interaction, participation, and co-creation**

As has already been outlined in different passages of this contribution, the notion of ‘the Interactive’ is certainly key to understand the specificities when it comes to teaching i-docs. Still, ‘the Interactive’ is not only a key concept with regard to the subject matter. Rather – and here we are coming back to the promised ‘double twist’ of this contribution – it can also be used in approaching ‘i-docs’ in Higher Education. At this point, it thus makes sense to review various forms of the phenomenon from a didactic point of view and yet still within the context of specifically teaching documentary in the 21<sup>st</sup> century.

### **Interactivity: Engaging students in user-to-system interactivity**

The most obvious harnessing of ‘the Interactive’ in didactic settings is probably *interactivity* in the concise meaning of *user-to-system interactivity*. This form of direct feedback-loops can be employed in form of small tests, quizzes, and other stimulating course-activities. As shown above, in the *DiD* online course, for example, in the main part of the units, short prompts or ‘impulses’ invite the students to actively engage with material. Moreover, all units end with a set of self-tests, mostly built in H5P. The abbreviation H5P stands for ‘HTML5-Package’. The format is a community driven, free accessible, open-source project which provides software tools to make it easy to create, share and reuse HTML5 content and applications. Without expert competences in coding, one can build various interactive

elements within a graphic user interface – including web-components which can be used for didactic purpose as assignments. The spectrum hereby ranges from single- and multiple-choice tests to drag & drop challenges, ‘fill in the blanks’- or ‘find-hot-spot’-tasks and various other forms of interactive short puzzles; still, also more demanding tasks are possible – as e.g. interactive video interrupted by questions or branching scenarios. These tests can be evaluated automatically and allow students to directly verify their learning success.



Screenshots from the online course *DiD – Das Dokumentarische im Digitalen*,  
 “The ‘i’ in ‘i-docs’ or: Just a question of terminology?”

The self-test shown here requires the assignment of keywords to concrete projects. In a first step, students are invited to explore the examples (cf. gray tabs indicating the projects – here *Clouds over Sidra*) and shall then decide, which dimensions of the ‘I’ in i-docs features most prominently (drag & drop task in the screenshot above). By completing the task, students cannot only check their understanding of the theoretical content laid out in this unit; the test also makes them familiar with further projects.

A more complex level of activity – namely also *interactivity* plus *interaction* – is included in the section of each unit, titled ‘reflection’. In these assignments, students are asked to contextualized issues and to establish links between their

'findings'. The skills and competences hereby required can be situated on the four top levels of Bloom et al.'s pyramid<sup>9</sup> – comprising application, analysis, synthesis, and evaluation. By working through these tasks, students cannot only consolidate competences that have already been tested above; many of the assignments also invite interaction among students, hence fostering competence of cooperation and collaboration – which leads to a further 'layer' of 'the Interactive' when 'peeling the onion' of the phenomenon – to take up the metaphor by Marie-Laure Ryan when describing interactive narrative (Ryan 2005).

### **Interaction: Encouraging exchange among students**

Ultimately, in fact, *interactivity* in the interactive, media-based design of the course cannot only be seen as a means to confer information and convey 'a feeling' for i-docs by exploring them; rather, 'the Interactive' can also lead to interpersonal student engagement. Even though, as outlined above, it is possible to use the online course for self-study, the most encompassing learning achievements can probably be realised if the resource is employed in flipped or inverted classroom scenarios respectively other forms of blended learning. In these settings, the online course is intended to relieve the classroom teaching of the basic knowledge transfer; basic information is presented in the course *before* the students come to class. Hence, students which have worked through the interactive material at home are already familiar with major theories and concepts as well as a set

---

<sup>9</sup> For the two-part taxonomy of different dimensions of competences, cf. (Bloom 1956; Bloom and Krathwohl 1964), for critical discussion and retrospect, cf. (Anderson and et al. 1994).

of paradigmatic examples *before* they come to the face-to-face meetings. These meetings can now be used for *interactivities* and interactional application of knowledge as well as the development of further sets of competences. Sessions can serve more for the exchange of experiences and the discussion of in-depth questions than merely teacher centred instruction teaching; open spaces for exchange and creative project work are created. In the face-to-face periods, teachers can motivate students, for example, to develop their own projects, to encourage peer-instruction, learning by teaching or service-learning, or to write and design units for the online course that they have missed so far.

### **Participation: Inviting students to become co-authors**

This further twist then leads to an even more complex form of 'the Interactive': *participation*. Students – who in the context of higher education should in fact be regarded as interested adults eager to learn and to create, on par with lecturers – are invited to actively and self-determinedly engage in the process of learning. Hence, in order to increase engagement, they can be involved in developing the course further, in co-authoring and co-designing and expanding the 'living' resource and learning companion. As the course is built in WordPress and adjacent systems (enhanced by add-ons and third party application such as H5P) which however function rather independently from one another and can be easily integrated in various Learning Management Systems,<sup>10</sup> students also get the empowering feeling that they are

---

<sup>10</sup> Though moodle is certainly one of the most common LMS in the European and Anglo-American Higher Education environment, it is not used at universities all

not only working on learning resources for themselves but participating the creation of a course on a much more extensive participatory level. Likewise, due to the easy to learn and yet aesthetically attractive building-block logic which can be accessed on the front-end and hence does not require extensive coding skills, students can develop competences which combine aesthetic considerations regarding e.g. layout and interaction design with basic computational understand, and didactic considerations (e.g. where to embed which example via i-frame) with – foremost – research findings.

Depending on previous knowledge, students participate in changing existing sections, in modifying parts and in adding content. The editorial team of the course – i.e. experienced researchers, lecturers and tutors – then discusses the suggestions and evaluate the possibilities for realising improvements together with the students.

Possible venues for this are for example the implementation of additional material in the form of a project work. This form of active participation (ideally accompanied by a project record and report) might then be considered equivalent as to a written seminar paper (depending on the module and examination guidelines). Students are not only introduced to the application of software and experimentation with tools and platforms (many of them also typically used in the creation of web-based i-docs); rather, through this modification of the logics of learning-by-teaching methodology, they also develop proficiencies in

---

over the world. Hence, by creating learning packages which are exportable and then importable into various systems, one can enhance the compatibility and hence the operational usability by employing a format which is as inclusive and adaptable as possible.

collaborative problem-solving, in finding a balance between complexity and adequate reduction, and in dealing with assemblages which are in a constant flux.

Though the focus of co-designing units for the i-docs online resource might be put on co-educative aspects, the similarities between i-docs as a medial genre, i-docs as a cultural technique, i-docs as an epistemic assemblage and i-docs as co-creative transformative process are numerous and can be fruitfully reflected and experienced at the same time.

### **Co-Creation: Expertise through transdisciplinary editorial and didactic collaboration**

Since the turn of the decade, ‘co-creation’ has become one of the most discussed concepts in the expanding field of interactive documentary. The discussion hereby runs quite controversially, not least because the concept is highly complex and takes different meanings in different contexts, transitions between co-creation (in its different nuances) and participation are fluid. Moreover, one has to add that neither participation nor co-creation in field of documentary are novel or exclusively phenomena of the digital age as experiments in the 1960s demonstrate.<sup>11</sup> Considerations in this context can be fruitful also in the design of co-creative methods in teaching i-docs as – on a meta level – the impetus and outset of both are similar.

Often, it is regarded as a further opening of authorial power beyond ‘mere participation’ – an opening which bears high

---

<sup>11</sup> For a discussion of recent positions cf. e.g. (Auguiste et al. 2020b; Auguiste et al. 2020a; MIT CoCreation Studio 24.05.2021; Cizek and Uricchio 2019; Cizek et al. 2017; Rose 2017; Wiehl 2020b; Wiehl 2020a).

potential for the emergence of original, authentic, emplaced voices which together form a pluri-perspective image and contribute to stimulating polyphony.<sup>12</sup> The concept of polyphony can be highly inspirational in this context as it not only describes the fact that a plurality of perspectives and voices of different individuals are brought together; rather, it is currently being further developed into a complex methodological set, it is used as ‘a tool for thought’ and it gains momentum in the field opening between poetics and politics. Practices, which fall under the umbrella term, are characterised by the fact that ‘[p]rojects emerge out of process’ (Cizek and Uricchio 2019). Thereby, co-creation ‘spans across disciplines and organizations – even beyond them’. Most importantly, however, is the self-reflexive nature of the concept: co-creation “reframes the ethics of who creates, how, and why” (Cizek and Uricchio 2019); it ‘demands focused reflection on its inherent ethical and political dimensions’ (Auguiste et al. 2020b, 67).

When reflecting on the question of how to teach documentary *in* the 21<sup>st</sup> century and *for* the 21<sup>st</sup> century, it can be worthwhile considering conceptualizations and methodologies of co-creation and adjacent concepts, such as for example polyphony and or multi-perspective thinking.

One option is e.g. bringing on board authors from different universities and disciplines and to organise trans-university, trans-disciplinary – partly even trans-professional working groups within the editorial team. Seemingly, collaboration in this context comprises basically the same principles as in other

---

<sup>12</sup> Cf. in particular (Aston and Odorico 2018; Fetzner and Dornberg 2018; Thalhoffer et al. 2018; Miller 2018; Zimmermann 2020; Zimmermann 2018; Hudson and Zimmermann 2015).



academic cooperations: On the one hand, a form of peer review is carried out through the mutual assessment and editing of units of the respective authors, which ensures current professional standards. On the other hand, the advantage of this procedure lies in bringing together different expertise and competencies. In some cases, it is advisable to also cooperate with external organizations for a sustainable realisation beyond the often only short- to medium-term (financial) security provided by third-party funding at universities. This guarantees an ongoing, usually multi-year support and maintenance of the online courses, including technical updates, the repair of broken links and, if necessary, reviewing and updating content. Most often, universities and funders are not prepared to provide financial models and organizational structures for such tasks. One of the major problems hereby lies in the complexity of legal issues – in both managing the rights of the use of external material and maintaining standards in citation law as well as in respecting the copyright and rights of use of the authors. These problems quickly exceed the ‘agency’ – the authority to act – of an individual teacher and, ultimately, of most university institutions.

In addition to this, however, it is one principle of co-creation in particular that can set free creative potential which lies dormant in still rather strictly hierarchically organized academic institutions. Though at least in European and Anglo-American academia, institutions set out to be open to work on less hierarchical premises, it often requires some last catalysing impulse which encourages co-creators *to work transverse to these university hierarchies*. Though it might seem to be slightly paradoxical, a ‘concept’ or ‘methodology’ or rather a ‘mindset’ such as proposed by co-creation might be encouraging and

inspiring in this regard. Through the exchange on equal footing, research and programming, multimedia, didactic and interaction design, and editorial work are equally important. Hence, if the interaction between co-creating authors, designers, lecturers but also students and tutors involved follows the most convincing arguments in each case – not hierarchy – the teaching process as a whole gains in clarity, and the online course as central resource gains in complexity and precision.

### **Instead of a Conclusion: Summarizing remarks for further considerations**

At this point, we have come full circle with our second twist: In fact, many of these processes in teaching i-docs parallel the inner logics, the creation process of i-docs and the affordances of interactive documentary assemblages. Hence, the didactic approaches to address these in class is – in many aspects – congruent with the subject itself. Teaching interactive documentary by means of an interactive course does not only appropriate the logics of the latter to the former for didactic purposes. Transposed into the environment of learning labs, on a meta-level, it can also simulate processes of (co-)creation in documentary practices.

Thus, what can be concluded at the end of these reflections – and how can these deductions lead to an enhancement in approaching emerging documentary practices in teaching?

First of all, revisiting the challenges which interactive, dynamic and multiply entangled documentary phenomena pose when it comes to teaching topical developments in the field are manifold – ranging from didactic to aesthetic, from legal to technical

issues. And still, it is precisely the interactive moment – including interaction, participation and co-creation and the engagement in complexity – that can be seen as a great learning opportunity. Moreover, some of the challenges associated with the media specifics and affordances of i-docs as well as their praxeological dimension can be also twisted around: they can serve as an inspiration for designing the course in form of an interactive digital, living, engaging format.

As has been seen, given the complexity of interactive configurations as dynamic constellations, didactic mediation cannot claim to be timeless, supratemporal and comprehensive. Hence, priorities must be set when identifying relevant theories and methodologies, discourses, and phenomena, and when defining teaching-learning objectives.

A strategy to confront these problems is to lay challenges open and to transparently discuss these concerns with students. Issues such as selection criteria, topicality of discourses and examples are disclosed, and advanced in particular can be invited to reflect on their own academic methods and selection criteria by working on and with the corresponding theoretical texts, websites, interactive resources and concrete projects. Students of all study phases are given access to observe the dynamic field, initially guided by concrete tasks and then conducting research increasingly independently. Mostly, however, different dimensions of ‘the Interactive’ can be reflected on the didactic design of the course as whole – including aspects of interactivity in the sense of interaction among students, participation and – especially among interdisciplinary teams of teachers and course developers – co-creation. The ‘Interactive’ aspect of online courses should therefore not only be read in terms of activating

students but also as activating teachers to team up with others and support each other mutually. In doing so, we should not rely too much on the (often non-existent or severely limited) infrastructures of the university or be intimidated and deterred by supposed (nevertheless existing) legal problems.

It goes without saying that the development of interactive online resources to teach documentary is time-consuming, labour- and cost-intensive, and organising a team of internal and especially external partners with various competencies but also heterogeneous, sometimes conflicting working methods is not always easy – especially within the university context. And still, it is worthwhile – not only in view of the creation of sustainable and still topical and flexible resources, but also with regard to meta-competences which can be developed in this course – i.e. enabling students to become actively engaged in the process of learning.

Flexible modularisation options make it easy to adapt the content to the respective target groups. Unlike printed books, there is no fixed canon, but rather flexibly adaptable content tailored to the respective needs of teachers and students. Through their interactive and multimedia design, the online course offers an orientation towards the students' horizon of media experience. Consequently, the layout and design are also part of the argumentation. It is hardly possible to discuss certain questions, e.g. of visual design and interactivity if they are reduced only to their textual skeleton. What could be difficult to describe textually becomes comprehensible when exemplified in audio-visual material and when the design itself is argumentative, and it becomes even experiential when explored by oneself.

In this way, classroom lectures at universities can be relieved of the task of imparting knowledge within the framework of a flipped or inverted classroom scenario – opening spaces for discussions, exchange of experience and especially project work organised by the students themselves. This interactive, dynamic approach goes hand in hand with a change in the roles of students and teachers. The online courses are only one component of this role change.

Thus, teaching emerging documentary phenomena and their theory by means of interactive resources, online programs such as *DiD* open up completely new possibilities for the presentation and discussion of complex multimedia, multi-layered and polyphonic and interactively organised configurations and ecologies of knowledge. These approaches need by no means be limited to the topic of documentary *film*. Emerging methods in the expanding field of documentary as a *practice* and a *cultural technique* can equally be used to deal with other topics and thus to design sufficiently complex worlds of knowledge for further academic use. Thus – to finally dare a glimpse towards the wider horizon: even if the focus of teaching documentary remains on primarily audio-visual renderings of ‘the Documentary’, it is certainly worthwhile having in mind the ‘bigger picture’ in terms of the media ecological embeddedness of documentary modes and modalities – especially in networked | networking i-docs.

Thus, instead of a conclusion – as the topic by itself inhabits any way of closure and hence concluding in the literal sense –, it can be stated that curiosity, agility and open-mindedness towards alternative ways of teaching and collaborating at universities are not only possible but probably essential and should be (or become) standard in Higher Education. As such, these

competences can be understood on a meta-level as another learning objective – not only for students, but also for teachers and researchers in the field.

## References

- Anderson, Lorin W. et al. (eds) (1994). *Bloom's taxonomy. A forty-year retrospective*. Chicago: University of Chicago Press.
- Aston, Judith and Gaudenzi, Sandra (2012). 'Interactive documentary: setting the field' in *Studies in Documentary Film*, 6(2), pp. 125–139.
- Aston, Judith and Odorico, Stefano (2018). 'The Poetics and Politics of Polyphony: Towards a Research Method for Interactive Documentary' in *alphaville*, 15, pp. 63–93 (Accessed: 10 January 2023).
- Auguiste, Reece, De Michiel, Helene, Longfellow, Brenda, Naaman, Dorit and Zimmermann, Patricia (2020a). 'Co-creation in Documentary' in *Afterimage*, 47(1), pp. 34–35. Available at: [https://online.ucpress.edu/afterimage/article-pdf/47/1/34/385479/aft\\_47\\_1\\_034.pdf](https://online.ucpress.edu/afterimage/article-pdf/47/1/34/385479/aft_47_1_034.pdf).
- Auguiste, Reece, De Michiel, Helene, Longfellow, Brenda, Naaman, Dorit and Zimmermann, Patricia (2020b). 'Fifty Speculations and Fifteen Unresolved Questions on Co-creation in Documentary' in *Afterimage*, 47(1), pp. 67–71. Available at: [https://online.ucpress.edu/afterimage/article-pdf/47/1/67/385511/aft\\_47\\_1\\_067.pdf](https://online.ucpress.edu/afterimage/article-pdf/47/1/67/385511/aft_47_1_067.pdf) (Accessed: 10 January 2023).
- Bloom, Benjamin S. (1956). *Taxonomy of educational objectives. The classification of educational goals: Handbook 1: cognitive domain*. New York: Longmans, Green.
- Bloom, Benjamin S. and Krathwohl, David R. (1964). *Taxonomy of educational objectives. The classification of educational goals: Handbook: affective domain*. New York: Longmans, Green.
- Bolter, Jay David (2019). *The digital plenitude. The decline of elite culture and the rise of new media*. Cambridge (Mass.): MIT Press.

- Cizek, Katerina; Rose, Mandy (2013). 'On Highrise'. CollabDocs. Available at: <https://collabdocs.wordpress.com/interviews-resources/kat-cizek-on-highrise/> (Accessed: 10 January 2023).
- Cizek, Katerina, Uricchio, William et al. (2019). *Collective Wisdom. Co-creating media with communities, across disciplines and with algorithms*. Available at: <https://wip.pubpub.org/> (Accessed: 10 January 2023).
- Cizek, Katerina, Wiehl, Anna and Rose, Mandy (2017). 'Documentary as Co-Creative Practice - from Challenge for Change to Highrise' in Sandra Gaudenzis, Mandy Roses & Judith Astons (eds), *i-docs - The Evolving Practices of Interactive Documentary*. New York: Wallflower, pp. 38–48.
- Dewey, John (1997). *Democracy and education. An introduction to the philosophy of education*. New York: Free Press.
- Downes, Edward and McMillan, Sally (2000). 'Defining Interactivity: A Qualitative Identification of Key Dimensions' in *New Media & Society*, 2(2), pp. 157–179.
- Dubberly, Hugh and Pangaro, Paul (2009). 'What is interaction? Are there different types?' in *Interactions*, XVI(1), pp. 1–10.
- Fetzner, Daniel and Dornberg, Martin (2018). 'Experimental Polyphony: On the Media Ecological Research of Intermediate Bodies' in *alphaville*, 15, pp. 124–146 (Accessed: 10 January 2023).
- Gantier, Samuel and Gaudenzi, Sandra (eds) (2018). *Design d'oeuvres interactives & méthodologies de conception*. Paris: Solilang.
- Gantier, Samuel and Labour, Michel (2015). 'User Empowerment and the I-Doc Model User' in David Bihanics (ed), *Empowering Users through Design. Interdisciplinary Studies and Combined Approaches for Technological Products and Services*. Cham: Springer International Publishing, pp. 281–307.



- Gaudenzi, Sandra (2013). 'The interactive documentary as a Living Documentary' in *DOC ONLINE*, (14), pp. 9–31. Available at: <http://www.doc.ubi.pt/index14.html> (Accessed: 10 January 2023).
- Gaudenzi, Sandra (2014). 'Strategies of Participation: The Who, What and When of Collaborative Documentaries' in Kate Nashs, Craig Hights & Catherine Summerhayes (eds), *New Documentary Ecologies. Emerging Platforms, Practices and Discourses*. New York: Palgrave Macmillan, pp. 129–148.
- Hudson, Dale M. and Zimmermann, Patricia (2015). *Thinking through digital media. Transnational environments and locative places*. New York: Palgrave Macmillan.
- Jensen, Jens F. (1999). 'Interactivity - Tracking a New Concept in Media and Communication Studies' in Paul A. Mayers (ed), *Computer media and communication*. Oxford: Oxford Univ. Press, pp. 185–204.
- Jihoon, Kim (2022). *Documentary's Expanded Fields: New Media and the Twenty-First-Century Documentary*. Oxford: Oxford University Press.
- Kermanchi, Jasmin (2020). *i-docs als Herausforderung für die medienwissenschaftliche Produktanalyse*. Open Media Studies Blog. Available at: <https://zfmedienwissenschaft.de/online/open-media-studies-blog/digitale-medien-und-methoden-6> (Accessed: 10 January 2023).
- Manovich, Lev (2017). 'Cultural Data. Possibilities and limitations of the digital data universe'. In: Oliver Grau, Wendy Coones and Viola Rühse (eds.): *Museum and archive on the move. Changing cultural institutions in the digital era*. Berlin: De Gruyter, pp. 259–276.

- Manovich, Lev (2000). 'Database as a Genre of New Media' in *AI & Soc* (14), pp. 176–183.
- Manovich, Lev (2001). *The language of new media*. Cambridge: MIT Press.
- McMillan, Sally (2006). 'Exploring Models of Interactivity from Multiple Research Traditions. User, Documents and Systems' in Leah A. Lievrouw (ed), *Handbook of new media*. London: SAGE Publications, pp. 205–229.
- Miles, Adrian (2018). *Digital Media and Documentary. Antipodean Approaches*. Cham: Palgrave Macmillan UK. Available at: <https://ebookcentral.proquest.com/lib/gbv/detail.action?docID=5219508> (Accessed: 10 January 2023).
- Miller, Elizabeth (2018). 'The Shore Line as Polyphony in Practice: A Case Study' in *alphaville*, 15, pp. 113–123. Available at: <http://www.sharondaniel.net/participatory-media/#palabras> (Accessed: 10 January 2023).
- Miller, Elizabeth, Little, Edward and High, Steven (2017). *Going public. The art of participatory practice*. Vancouver, BC: UBC Press.
- MIT CoCreation Studio (2021). *What is co-creation - working definition*. Available at: <https://cocreationstudio.mit.edu/> (Accessed: 10 January 2023).
- Nash, Kate (2014). 'Strategies of interaction, questions of meaning: an audience study of the NFB's Bear 71' in *Studies in Documentary Film*, 8(3), pp. 221–234.
- Nash, Kate, Hight, Craig and Summerhayes, Catherine (eds) (2014). *New Documentary Ecologies. Emerging Platforms, Practices and Discourses*. New York: Palgrave Macmillan.

- Ochsner, Beate, Fahle, Oliver and Wiehl, Anna (eds) (2016). *Die Herstellung von Evidenz oder: Zum Phänomen interaktiver Web Dokumentationen*. Marburg: Schüren.
- Rose, Mandy (2017). 'Not Media About, but Media With: Co-Creation for Activism' in Sandra Gaudenzis, Mandy Roses & Judith Astons (eds), *i-docs - The Evolving Practices of Interactive Documentary*. New York: Wallflower, pp. 49–65.
- Rose, Mandy, Gaudenzi, Sandra and Aston, Judith (eds) (2017). *The Evolving Practices of Interactive Documentary*. New York: Wallflower Columbia University Press.
- Ryan, Marie-Laure (2005). *Peeling the Onion. Layers of Interactivity in Digital Narrative Texts*. Available at: <http://www.marilaur.info/onion.htm> (Accessed: 10 January 2023).
- Schrape, Niklas (2012). *Die Rhetorik von Computerspielen: wie politische Spiele überzeugen*. Frankfurt/M., New York.
- Thalhofer, Florian, Odorico, Stefano and Aston, Judith (2018). 'Enacting Polyphony: An Interview with Florian Thalhofer' in *alphaville*, 15, pp. 106–112. (Accessed: 10 January 2023).
- Weber, Thomas. (2021). *Webdokumentationen. Eine Einführung*. Hamburg: Avinus.
- Wiehl, Anna (2018). 'Beyond "Toolness": Korsakow Documentary as a Methodology for Plurivocal Interventions in Complexity' in *alphaville* (15), pp. 33–48.
- Wiehl, Anna (2019). *The Digital Moment in interactive Documentary. Polyphony and Collaborative Storytelling between on-line and on-ground Action*. Hamburg: Avinus.
- Wiehl, Anna (2020a). 'Digital transformation of doing documentary: Committed documentary and the knitting of networks of co-

- creation' in *Catalan Journal of Communication & Cultural Studies*, 12(2), pp. 181–196.
- Wiehl, Anna (2020b). 'From documentary networks to documentary worknets. Strategies of participation and co-creation in emerging practices of factual storytelling' in *New Cinemas*, 17(1), pp. 3–19.
- Zimmermann, Patricia (2018). 'Thirty Speculations Toward a Polyphonic Model for New Media Documentary' in *alphaville*, 15, pp. 9–15.
- Zimmermann, Patricia. (2020). 'Polyphony and the Emerging Collaborative Ecologies of Documentary Media Exhibition' in *Afterimage*, 47(1), pp. 61–66. Available at: [https://online.ucpress.edu/afterimage/article-pdf/47/1/61/385517/aft\\_47\\_1\\_061.pdf](https://online.ucpress.edu/afterimage/article-pdf/47/1/61/385517/aft_47_1_061.pdf) (Accessed: 10 January 2023).
- Zimmermann, Patricia and De Michiel, Helene (2018). *Open space new media documentary. A toolkit for theory and practice*. New York: Routledge.