

The Ethics of Emergence

The Challenge of Trust in Today's Interactive and Immersive Documentary

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“France being ‘pounded’ by Russian disinformation, says minister”; “Can AI image generators be policed to prevent explicit deepfakes of children?”; “Social Media algorithms ‘amplifying misogynistic content’”.¹ Headlines like these and many more like them have amplified to an extent that hovers on the dystopian the supposed threat posed by artificial intelligence, deepfakes, social media platforms, and other departures from the relatively “stable” media technologies of the past.

Concern is certainly merited, particularly given the largely untested and under-regulated state of these media forms, combined with the motives of their backers, who tend to put profits and power before civic responsibility. But the structure of the jeremiads and their assignment of responsibility are also revealing. “Top down” solutions, whether technological (better content flagging and filtering systems, watermarks, even censorship) or organizational (enforcement of the responsibilities of creators, publishers, platforms, and regulators) figure prominently in the discussion. Techniques that worked reasonably well with the centralized, one-to-many media forms of the past (broadcasting and publishing prominent among them) are uncritically extended to a new class of media forms (including interactive, immersive, algorithmically curated, and recursive systems that respond to user behaviors). And therein exist both problems and opportunities for the interactive and immersive documentary that this essay will address.

Still very much in an experimental stage, interactive and immersive documentaries, as documentaries, bear an implicit relationship to the truth. Yet, like other emerging media forms, their defining affordances shift agency to a space shared

1 All headlines from *The Guardian*: Lisa O’Carroll 22 April 2024, “France being ‘pounded’ by Russian disinformation, says minister: Jean-Noël Barrot says propaganda via social media and fake websites may distort EU election results”; Alex Hern, 23 April 2024, “Can AI image generators be policed to prevent explicit deepfakes of children?”; Sally Weale, 5 February 2024, “Social media algorithms ‘amplifying misogynistic content’: Researchers say extreme content being pushed on young people and becoming normalized”.

by, on one side, producers and publishers, and on the other, the “people formerly known as audiences” (Rosen 2012) – the systems’ users. The pages ahead will sketch the larger media situation, examine where the documentary fits and how the field discusses responsibility and the ethics of truth, before finally taking up alternatives and strategies for their exploration. To be clear, the discussion will focus on the interactive and immersive documentary, but with implications for how today’s publics negotiate the emerging media landscape. The current situation raises more questions than it provides answers, but that’s precisely the use-value of the interactive and immersive documentary. Documentary, as always, is a “canary in the coalmine”, and a laboratory for the larger project of reality-facing representation.²

Context

The past few decades have witnessed a dramatic change in the logics of media production and consumption, and it is my contention that society’s critical responses have not kept up. Zooming out, one might say that we are transitioning from roughly 600 years of textual stability introduced ca. 1450 with the printed word, and developed by media organizations largely predicated on center-to-periphery distribution.³ Stability was facilitated, for better or worse, by institutions such as publishing houses, film studios, and broadcasters, under constraints stemming from sources such as governments, regulatory bodies, legal conventions, and markets. The situation changed dramatically by the end of the 20th century as decentralized peer-to-peer networks enabled anyone to be a “publisher”, thanks to the trifecta of affordable personal computers, rapid advances in processing power, and the internet. Legacy publishers saw their centrality and markets erode as a new ecosystem of bulletin boards, blogs, search engines, social media, and disaggregated “content” rose to dominance. Companies such as Alphabet, Amazon, Apple, Meta, and Tencent dis-

2 The documentary has consistently been a site of innovation in moving picture technology and technique, pioneering ideas that would later become part of the cinematic mainstream. The majority of the films made between 1895 and 1903 were on non-fiction topics, often replete with moving camera (fiction topics would dominate by 1906, initially with static shots); the earliest color films and in some national settings, sound films [e.g., *Melodie der Welt* (Ruttman, 1929), *Enthusiasm: The Symphony of Donbas* (Vertov, 1931)] were documentaries; and, by the mid-point of the 20th Century, pioneering television transmissions often had a documentary character.

3 Telephone and post are exceptions, but these are one-to-one and not many-to-many.

placed many traditional media companies, with the survivors often aggregating into transmedia conglomerates.⁴

Because legal systems, like human perceptual comprehension, are precedent-based, these emerging technological and corporate configurations have tended to be retrofitted into existing categories, their radical potentials often missed. When familiar transgressions appear – false information, misuse of personal data, intellectual property infringement, etc. – familiar remedies are sought. Alas, censorship, content filters, agreements regarding data use, and litigation, all of which have ample precedent in the legacy media world, aren't particularly effective with decentralized media. It's not even clear who, precisely, should be held responsible: producers? Users? Platforms? Internet Service Providers? And to complicate the picture even more, *unfamiliar* forms of transgression such as deepfakes, re-traumatization through immersive media, and re-contextualization with interactive media, have no ready-made solutions to fall back on, and so are shunted to the closest available legacy category. And so here we are, caught at a juncture in media paradigms, and neither sure what we are up against nor armed with appropriate reflexes.

For all of their newness, elements of this transition were anticipated by the “revenge of the reader” that played out in a variety of ways in the post-Second World War literary and cultural scenes. Phrases such as “the death of the author” (Barthes, Foucault), interpretive latitude (Fish), and the reader's newfound agency (cultural studies generally, and in particular scholars such as Fiske and Radway) celebrated user agency rather than the dictates of the author and determinations of the text. That agency was largely interpretive: Regardless of what the author or text intended, the reader could do what they wanted. The digital turn has raised the stakes. Rather than simply enabling interpretive agency, which is still an option, readers can now construct their own texts. The interactive documentary is a case in point. Rather than viewers simply interpreting a linear documentary like *Hearts and Minds* (Davis, 1974), they can, as individuals, navigate through an interactive environment like *Highrise/Out My Window* (Cizek, 2010) effectively working with documentary content and the affordances of a given interactive system to create their own text. The acts of interpretation and navigation are to some extent conjoined, and both are now in the user's hands.

In communication-theoretical terms, *transmission* describes the once-dominant paradigm of center-to-periphery, fixed-text media forms: getting information from point A to point B with minimum distortion. Telephone engineering was the model, and Claude Shannon's (and later, Shannon & Weaver's) “A Mathematical Model of Communication” (1948) the theory (Shannon 1948). In 1988, James Carey anticipated

4 Although the user has greater agency, there is still considerable constraint evident in the re-aggregation of corporate ownership and control and demonstrated through governmental intervention (e.g., China's “Great Firewall”).

by a decade the dynamics of the “experience economy” and social media, making the case for a competing communication theory based on *ritual*, exchange, and dialogue. Drawing on Emile Durkheim’s work on ritual and religion (2001 [1912]), Carey argued that these exchanges build community (1988). These two communication forms have crystallized around media organizations such as the Washington Post (transmission) and WhatsApp (ritual).⁵ And ideally, both forms work in tandem, such as when people read newspapers (transmission) and then discuss what they have read with others over coffee (ritual).

Whereas the stable texts of traditional documentaries can easily be understood through the transmission model (What’s the message? How large was its target audience, and did it reach it?), interactive documentaries are much better understood through the lens of ritual (where the quality rather than quantity of interaction, dialogue, and exchange matters). And this in turn has implications for the theory of documentary, long understood as a rhetorical art in which argument and evidence were central. Interactive documentaries can certainly marshal argument and evidence, but rhetorical strategies such as argument require fixed structure, which they obviously lack. Instead, their strength comes from personalization, the dialogic, and (in some forms), the contributory.

Raymond Williams and Lisa Gittelman have, in different ways, defined media as culturally specific instances of platforms/technologies and protocols/behaviors. With nearly 600 years of experience under their collective belts, societies seem well-acclimated to the platforms of the past and attend to them with well-codified protocols. For example, television viewers can generally distinguish fiction from non-fiction, and advertisements from news. Protocols such as attribution, editorial boards, regulatory frameworks, libel laws, and more enforce that regime of predictability. But they are predicated on the logics of transmission and assume an institutional center as well as relatively stable texts. What about interactive, immersive, and even generative media forms? Who is responsible for the choices made by users and the content they might share? Those protocols have not yet taken form, and as noted, the next best thing seems to be to fall back on precedent protocol, whether it fits or not.

5 In 2014, Jeff Bezos bought the *Washington Post* for an estimated 80 million USD (the complete transaction was 250 million USD and included a number of sister companies). The same year, Mark Zuckerberg bought *WhatsApp* for ca 19 billion USD. The differential attests to the relative market values of transmission vs. ritual. The assessment of value is also complicated by the shift from the old quantitative metrics regime of “exposure” (how many people view something) to the challenges of assessing qualitative markers of “engagement”. See Napoli 2011.

Dominant Ethical Frameworks for Media

Responsibility can be a contentious term, caught between ethical codes, legal obligation, and the discursive claims of the text in question (fact, satire, fiction, etc.). As a genre within reality-facing media, the documentary to some extent falls under the ethical mantle established by journalism. Of course, journalism – at least for much of the 20th Century – has been fact-based and “policed” by institutions and professional credentialization; documentary, by contrast, has been truth-based and, with some important exceptions, institutionally independent. The exceptions tend to be documentaries produced for journalistic broadcast and print entities such as FRONTLINE, *The New York Times* OpDocs, and BBC productions, which must hew to fact-checking as they also engage in truth-telling. Fact and truth point in the same direction, of course, but are worlds apart; and this matters because ethical frameworks (contained in codes and codices, taught in courses) relevant for documentary have been produced under both banners.

What is the state of ethics as they pertain to the documentary? What follows is an impressionistic survey of key terms based on an analysis of the ethical codes and recommendations advanced by leading English-language journalistic, documentary, and interactive media organizations.⁶ This is an initial sketch, and a fuller comparative study across linguistic and cultural divides remains to be completed. The most frequently mentioned media-ethical issues include:

- privacy & data security;
- transparency;
- accuracy & truthfulness;
- inclusivity & diversity;
- user empowerment;
- social responsibility;
- cultural sensitivity;
- environmental impact;
- regulatory compliance.

6 The data were drawn from journalistic organizations including the Poynter Institute, the Ethical Journalism Network, The Society of Professional Journalists, and centers such as The Media Ethics Initiative at the University of Texas at Austin and The Markkula Center for Applied Ethics at Santa Clara University; documentary-specific organizations such as the International Documentary Association, The Center for Media & Social Impact, The British Documentary Film Foundation, and The Sundance Institute Documentary Film Program; and initiatives concerned with emerging media such as the International Game Developers Association, The Entertainment Software Rating Board, The Game Developers Conference, The Future of StoryTelling, The XR Safety Initiative, and The Interactive Ethics Working Group.

Topics such as “inclusivity & diversity”, “cultural sensitivity”, and “environmental impact” reflect the current cultural moment; but surprisingly, only “privacy & data security” specifically addresses the paradigm shift from fixed to interactive media forms. Otherwise, all of these categories fit well the tradition of stable and centrally distributed legacy media. That said, they are fine desiderata for emerging media forms.

If we refine the filter to ethical concerns regarding *digital* media, a number of familiar tropes appear:

- user generated content & misinformation;
- algorithmic bias & filter bubbles;
- privacy & data collection;
- online harassment;
- deepfakes & manipulated media;
- gamification & behavioral manipulation;
- automated content creation (in journalism);
- augmented reality & invasion of privacy;
- digital divide & access inequities.

This worthy set of concerns reflects fears that regularly surface as headlines. With one or two exceptions, however, (user generated content and perhaps online harassment), they also reflect issues that have been constructed with a mind to top-down solutions. The “fix” for issues such as algorithmic bias, gamification, data collection, access inequities, and the rest, is in the hands of regulators, producers, and platforms. Those who use digital media can be informed or not, can opt-in or out, but their ability to act doesn’t extend much farther. In a setting that celebrates newfound user agency through terms such as “personalization” and “on-demand” services, the framing of sites of ethical concern as essentially the responsibility of the top seems problematic. But it is also emblematic, supporting dramatic headlines and conjuring up industry guidelines, rule sets, disclosure statements, filtering technologies, watermarks, and the rest. Ironically, the most pointed engagement with the user, at least in the software sector, comes in the form of EULAs – end user license agreements – which generally restrict the user’s behaviors while also limiting the producer’s liability. Think of this as the industry’s idea of “applied ethics”.

Legacy and emerging media share the same default construction of ethical responsibility, despite the earlier discussed difference between logics of transmission and ritual. Top-down interventions work best in centralized distribution systems, where control at a single point has implications for myriad outlets down the line. But emerging media’s disaggregated networks, user-navigated textual systems, and

contributory assemblages (whether documentary or social media) effectively lack the hierarchical structures conducive to control. And that's a problem, as emerging systems increasingly become the norm.⁷

Alternative Ethical Frameworks for Interactive and Immersive Documentaries

If the institutionally dominant response to the question of ethical responsibility in emerging media is a top-down matrix of filters, regulations, and industry guidelines – and if, as argued, these have limited efficacy because these are not transmissive but rather ritual media forms – there are at least two major alternatives. One puts explicit emphasis on the user by connecting the dots between the user's newfound agency as a textual co-creator and the user's obligation to use that agency responsibly. The other is a collaborative model, where designers (top-down) and users (bottom-up) work together to create responsible behaviors. Let's first briefly consider the case for ethics as part of user agency.

As noted, the world of literary and cultural theory has for decades recognized the interpretive agency of users, endorsing their capacity for meaning-making and putting it at the same level as the author's intent and the "constraints" of the text. Interactive and immersive media went a step further, unleashing the navigational freedom of the user and, with it, the user's ability to construct their own text, in addition to interpreting it. This expanded agency assumed the user's capacity for coherent decision-making.⁸ But somehow, the ethical implications of that expansion, and the notion that coherent decision-making should entail responsibility, was largely unspoken. Granted, individual ethical engagements are difficult to monitor, but they are relatively easy to articulate and systematize through the educational

7 As of January 2023, of the total world population of 8.01 billion, 68% were unique mobile phone users; 64.4% were internet users; and 59.4% were active social media users. Based on United Nations and governmental data, as summarized by Simon Kemp (2023).

8 Although I have framed this problem in terms of the challenge posed by today's emerging media, in fact it is not new. The print and film media of the late-19th and early 20th century used images to illustrate events without necessarily making any claim to accuracy or actuality. Edison's *Raising Old Glory Over Morro Castle* (1899), part of the company's Spanish-American War coverage, is clearly filmed in front of a hand-drawn set. Before photographs were widely used in the press, countless etched illustrations dramatized the events depicted for an audience that was neither "duped" nor stupid, but rather one that understood that images were figurative, not literal. The introduction of photography, its later inclusion by the printed press, and the "actuality" claims made by film would eventually change things, granting the image new power and putting the weight of credibility into the editor's hands. That historical shift in the public's relationship to the image seems relevant as we today experience a digitally induced shift in the epistemological status of the image.

process and by situating them as part of a larger cultural code. Unfortunately, rather than emphasizing media literacy, cultural arbiters skewed towards technological and legalistic fixes, confronting the user with constraints and threats, but only rarely appealing to their better natures.

Shifting the burden of ethical responsibility to the user assumes an embrace of media literacy, civic engagement, and social control. Alas, I write this at a moment in history when electorates in many nations are polarized in a way that involves fundamental uncertainty regarding the source, let alone the truth-value and representational capacities, of media texts. Depending fully upon users' ethical sensibilities at such a cultural juncture seems untenable even if desirable. What about the second alternative, a collaboration between designers and users? An anecdote offers an entry point.

Fig. 1: Nazi officer's uniform in the exhibition of the Zekelman Holocaust Center. Some visitors used the uniform as a background for selfies. The museum therefore added images of soldiers lounging at ease or leading victims to mass shooting sites.



Source: <https://holocaustcenter.org/one-hope-from-changes-at-this-holocaust-museum-fewer-nazi-selfies/> (last accessed: June 11, 2025)

The Zekelman Holocaust Center outside Detroit had a problem: Nazi selfies (Blumenthal 2024). Visitors regularly posed and took selfies in front of a display case containing an SS uniform complete with red NSDAP armband and whip. And surveillance footage indicated that some visitors even raised their arms in salute. The center neither censored the exhibit nor policed it (top-down solutions), but rather responded with a design fix. They wanted users to connect the uniform to the actions of the person who wore it, and so placed photographic images on the surface of the glass display case of soldiers lounging or leading their victims to their deaths. Visitors remain free to take selfies, but auto-focus cameras will invariably pick up the photos on the exhibit case's windows rather than the uniform inside, and manual overrides will still connect the uniform with the period's atrocities. This fix demonstrates a collaboration between the intentions of the museum's designers and the desires of its users, offering an alternative to exclusively "top-down" control and "bottom up" autonomy.

Museums have much in common with interactive and immersive documentaries: An exhibit's designers populate a space with artifacts, exhibits, and explanatory material; and the visitor, while constrained by pathways and hard-wired sequences of exhibits, is free to wander, skip over things, and direct their attention where they will. Museums, like interactive documentaries, are reality-facing assemblages, the former being composed of material artifacts and the latter of sounds and images. In both cases, user behaviors can range from dutifully attempting to anticipate the designers' intent, to testing the limits of the system and attempting to break it.⁹ Fortunately, most users seem to fall somewhere in between. The example of the Zekelman Holocaust Center illustrates the importance of what might be termed *ethical design* in organizing settings for interaction. The designer builds affordances as well as constraints into the system, and the user is free to explore and make creative (and hopefully meaningful) use of the available options.

The power of interactive and immersive documentary forms lies in the quality of the experiences they afford – in contrast to the quality of the rhetorical argument excelled in by linear documentaries. Interactive experiences – and again, Carey's notion of *ritual* with its emphasis on exchange, contribution, and community is helpful – function as a heuristic rather than a statement. They are rooted in the dialogic, as users interact with and make creative use of the system's affordances. Like a museum, interactive and immersive documentaries enable users to wander, to stop and immerse, to re-sequence, to explore. Ethical design accommodates user agency, and better, works with users for experiential engagement. Of course, to the extent that the design is not preoccupied with containment, whether of concept or user behavior, it is also potentially open to abuse. And this is the core dilemma facing experience

9 Stuart Hall's classic trifurcation of reading positions comes to mind: dominant, negotiated, and oppositional, cf. Hall 1973.

designers, especially, as we've seen from the discourse of key institutional players, when the legal implications of responsibility are given paramount intention.

The frustration is tangible, particularly as the pace of technological change surpasses institutions' abilities to impose top-down controls.¹⁰ One way to approach the challenge is inspired by engineering: The more specific a problem, the more tangible the fix. This is where documentaries, whether interactive or immersive, offer something of an experiment or research lab for the larger field of emerging media.

Challenges in Interactive and Immersive Forms

What, exactly, are the emergent issues in these documentary forms that might be mitigated by collaborative design and greater margins for user intervention? Several stand out:

As already discussed, an important difference between interactive and linear documentary forms might be summarized as experience vs. argument. But the experience that emerges from the user's navigation of textual possibilities comes with a price *vis à vis* the stability of argument: The ability to alter sequence and context brings with it the ability to alter causality. An early example of these challenges appeared in the form of an MIT learning environment created by Shigeru Miyagawa and John Dower and entitled *Visualizing Cultures* (2002–), which dealt with Japan and the modern world through readings and images, and enabled students to recombine images to support their essays.¹¹ A decontextualized Japanese woodcut image, "Illustration of the Decapitation of Violent Chinese Soldiers", provoked a cyber-attack by outraged Chinese protesters, ultimately crashing MIT's servers and provoking deep discussions by administrators, academics, and students. How to both give students freedom to create their own narratives and yet protect against misuse, whether intentional or not? In the case of interactive and transmedia projects, what are the implications of manipulating context, sequence, and implied causality, whether inadvertently or maliciously? And how might designers work with users to mitigate this while celebrating user-agency through interaction?

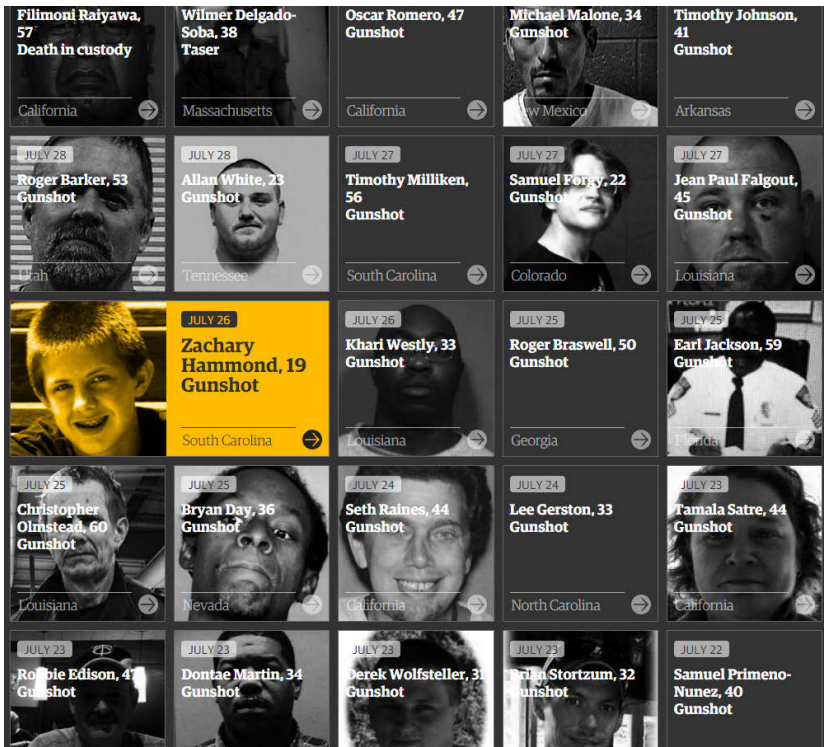
User contributions to interactive projects have proven to be quite important in documentaries such as *I See Change* (2012–), in this case, enabling the collection of fine-grained environmental data, tangibly supporting the work of climate scientists, and building an engaged and informed community in the process. But what guarantees the veracity of the data contributed? How can user data be protected?

10 "Tech, of course, is only part of the solution. If people really believe a photo of a 122-year-old woman with a cake she baked herself is real, then it isn't going to take state-of-the-art image generators to trick them into believing other, more harmful, things. But it's a start." (Hern 2024).

11 MIT 2002. See also Perdue 2006 and Callahan 2015

And how can assurances be made that user contributions are neither exploited nor “harvested” for business on the back of unpaid contributors? The Guardian’s *The Counted* (2015–16), a two-year-long, crowd-sourced endeavor to collect data on killings by police in the USA (which lacks a centralized database), illustrates a good balance between editorial control and user freedom. Using a collaborative model, the project encouraged members of the public to submit information on local events, which members of *The Guardian’s* staff fact-checked before uploading to the publicly accessible database. The viewing public could access the data by date, location, race, gender, age, manner of death, etc., as well as linking to local news sources, offering the most complete picture of verified deaths-by-police in the US.

Fig. 2: *The Guardian’s* project “*The Counted*”. Using a collaborative model, the project collected data on police killings in the USA.



Source: <https://www.informationisbeautifulawards.com/showcase/699-the-counted-people-killed-by-police-in-the-united-states-in-2015> (last accessed: 11 June, 2025)

A number of scholars claim that the experiential character of immersive media such as virtual reality has psychological implications, and can be used to help in the treatment of PTSD and certain phobias.¹² The argument is double edged: If carefully structured VR experiences can help to mitigate psychological conditions, often through desensitization, then by the same logic, less carefully structured or even maliciously structured VR experiences can generate psychological problems (a claim made, for example, by critics of first-person shooter video games). In the case of VR, documentaries about the Holocaust stand out as a particularly sensitive site, since users can include Holocaust survivors, deniers, and people with very different thresholds for the depiction of trauma. A recent spate of productions¹³ walk a careful line between triggering traumatic memories (“it’s like being back in the camp”) and desensitizing users to the event’s horrors (“it’s like a game”). To the extent that such claims are accurate, how can perceptual and psychological manipulation, for example, for purposes of de-sensitization, be mitigated? How should traumatized users be protected from re-traumatization? What is the user’s role in this “media effects” notion of immersive media?

In an era of epistemological uncertainty, are there techniques such as deepfakes that should be simply “off limits” to documentary makers, or are there creative and critical ways to deploy them with good effect? On one hand, organizations such as Leica, *The New York Times*, and the company formerly known as Twitter have created the Content Authenticity Initiative to police image authenticity; on the other, documentary makers such as David France have used deepfakes to protect witnesses while making them empathetic (*Welcome to Chechnya*, 2020). How can producers and publics work together to make use of the affordances of the new, while not falling victim to the power of the unknown in the process?¹⁴

Lurking behind these questions are issues of class, knowledge, and power – issues that are too often stacked in favor of media producers. How do we ensure that participants in interactive and immersive documentaries don’t exploit themselves or those around them? What should be done with the data-tracking features required to make some projects work – who is responsible, and what codes of conduct should prevail? And how can we guarantee that media forms built upon dialogue with their users are both legible in implication and transparent in their operations?

12 Mel Slater (Barcelona) and Jeremy Bailenson (Stanford) are prominent proponents of this view.

13 For example, *The Journey Back* (Winikur & Efron 2022), *The Last Goodbye* (Arora & Palitz 2017), *Night of Broken Glass* (Knoblauch, et al. 2024), *Letters from Drancy* (Emerson 2023). Some of these productions have been supported by The Shoah Foundation and the four mentioned are shown in the carefully controlled setting of Holocaust museums.

14 See WITNESS & The MIT Open Documentary Lab’s Co-Creation Studio, *JUST JOKING! Deepfakes, Satire and the Politics of Synthetic Media* (2023) <https://cocreationstudio.mit.edu/just-joking/> (last accessed May 28, 2025).

Every advantage and creative possibility of these new documentary forms brings with it challenges to the old certainties of the stable text, clearly defined authorship, editorial control, and the plethora of supervening structures that police user behavior. As noted at the outset, parallels abound to the situation in emerging media forms more broadly, with interactive and immersive documentaries offering something of a laboratory for the exploration and interrogation of these issues. But such questions also matter for the documentary as such, particularly at a cultural moment (the early 21st century) marked by the willful deployment of misinformation and disinformation, and a larger sense of epistemological crisis. Will these new forms simply exacerbate the reigning uncertainty, allowing individuals to create their own texts and versions of reality? Or will the deepening of experience and engagement enabled by these dialogic media offer a way to bring users closer to a common sense of truth?

The larger situation of media, and with it the interactive and immersive documentary, is further exacerbated by several conditions.

- 1) Moore's law, and the doubling of processing power roughly every two years, shows signs of faltering but nevertheless manages to hold. The implication is that micro-processor-based technologies will continue to develop exponentially, something evident in the current development of AI.
- 2) Business models continue to change at a rapid pace, as evidenced by the "platformization" of everything from social media to labor; the counterintuitive economic success of "free-to-play" games; and the behaviors of crypto-currencies.
- 3) Globalization means that media flow across legal jurisdictions and cultural norms, making them difficult to standardize and regulate.
- 4) Competing stakeholder interests complicate assessments and enforcement mechanisms. Moreover, competing analytic frameworks (legal, sociological, political, technological, etc.) greatly complicate decision-making.
- 5) Given all this, it's no surprise that media literacy, let alone a critical perspective, is sorely missing. And given media's centrality as an information source and social glue, a lack of familiarity with emergent media's capacities can have profound real-world consequences.

This set of issues simply underscores the inability of top-down systems to control the unknown, and points to the challenge of hoping for the best from one's fellow users. An alternative seems the way to go, focusing on an ethical design strategy that encourages users to deploy their agency responsibly while encouraging designers to work with users in a spirit of collaboration, attentive to the affordances of their system and clear about their expectations for its use.

Looking Ahead

The problems facing the media sector are as formidable as they are pressing. And in this context, interactive and immersive documentary are more than mere flourishes on the long tradition of non-fiction media. They offer a site of systematic experimentation, a laboratory for figuring out unfamiliar textual forms, exploring new user affordances, and interrogating a battery of emergent ethical conundrums. Unlike the vast scope of “media-in-general” questions, concerning oneself with the “documentary-in-particular” has a specificity in its relationship to reality as well as a concreteness in its corpus that renders it strategic. Interactive and immersive documentaries face specific problems, like those just itemized, and therein lies their opportunity for the larger field.

The challenge of trust in today’s interactive and immersive media, like the larger mediascape, turns on the operationalizing of ethics in a setting where the strategies of the past are largely ineffective, and emergent strategies remain experimental. Embracing the dialogical character of these forms, with users interacting with designed systems and with one another, and doing so in a way that balances freedom and constraint, will require significant creativity. Fortunately, interactive and immersive documentary makers can learn much from architects, city planners, and museum designers, all of whom afford their users freedom to wander and pursue their interests, but in ways that support a common mission. The representational character of documentaries and the modalities of user experience obviously bring with them dimensions not covered by this analogy, and that’s where the medium-specificity of ethical design matters.

Each of the issues mentioned in the previous section – malleable sequence, re-traumatization, user-generated content, etc. – is a site of active experimentation. And because these tend to be responsive systems, in which users can and do press against their affordances in unexpected ways, and designers can track user behaviors and modify their systems in real time, conditions are right to extend the dialogic character of the experience to the larger design process itself. The collaborative character of interactions between users and designers needs to be acknowledged and embraced as both parties work towards ethical design that accommodates both user freedom and the designers’ goals in creating the documentary experience. Just as this will require an expanded conception of design, it will also require a new and informed attitude on the part of users.

A shift from the long-entrenched logics of producer/consumer to a dialogical partnership is the call to action; and the laboratory of interactive and immersive documentary its site.

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