

# Joshua A. Fisher, Ph.D.

## Research Statement

I have dedicated my research focus to analyzing and producing non-fiction experiences and interfaces that use immersive media—Augmented, Mixed, and Virtual Reality (AR, MR, and VR—XR collectively). Specifically, I explore how interaction design for immersive media non-fiction can be a rhetorical practice to create knowledge, help communities, and empower others. My research utilizes concepts from Science, Technology, and Society (STS) to study this topic from various perspectives—cultural, historical, political, and ethical—as part of a research through design methodology that centers new forms of participation and cultural expression. Guided by humanistic principles, I work with communities on these XR interfaces and non-fiction experiences, who, in turn, then evaluate their effectiveness. As part of this evaluation, I derive insights through quantitative and qualitative methods to critically explore how theory as media practice plays out in real-world contexts.

I have several articles, some case studies [1, 2] and others theoretical [3–5], that consider the impact of XR on the physical, social, and cultural realities of spaces and places within communities. My most recent work utilizes Edward Soja's conception of Spatial Justice [6, 7] to reframe these consequences as issues of justice [8]. I claim that a spatial injustice occurs when communities do not have access, cannot moderate, or even participate in constructing the XR situated within their spaces. Following in the tradition of non-fiction producers, I believe that utilizing emerging media's new affordances rhetorically can create knowledge that benefits a community. Much in the same way that documentary filmmaking or applied theater encourages participants to conceive of reality as dramatic, full of possibility [9, 10], XR enables users to understand reality's plasticity and realize their dramatic agency [11–14]. Moreover, non-fiction XR practitioners can empower and help communities when experiences are produced ethically, in a participatory manner, with meaningful interactions [11, 15–17].

My focus on communities and non-fiction occurs at different scales. I use both an applied design practice—that engages usability studies, interviews, and surveys—and a critical and theoretical approach to explore how practitioners use emerging media to create non-fiction experiences [3, 18–20]. I rely on ethnography, close reading, and grounded theory for this work. My pluralist perspective is focused on structures to uncover epistemological and ethical dynamics in XR non-fiction. Of particular interest is how interaction design and digital storytelling embed values that can have social ramifications. My recent work explores how interactions in non-fiction VR experiences enact epistemic and procedural rhetoric [21–23] to create knowledge about a subject [24]. I propose that interaction design shifts the enactment of this epistemic rhetoric from designers to users through immersive narratological and ludic mechanics. This shift sparks spatial cognition in VR and encourages the active creation of belief [25].

Over the past year, my research scope has broadened to encompass additional emerging media forms, which has led to various scholarly outputs. These include analyses on writing for VR experiences, the archaeological study of video game loading interfaces, and the ethical application of Generative AI in education, rooted in Digital Humanism. These works contribute to the discipline of XR storytelling with an emphasis on achieving spatial justice and promoting an inclusive and ethical media ecosystem.

My ongoing initiatives include spearheading an edited collection of Interactive Digital Narrative syllabi and conducting a community-based research study into AR literacy. These projects underscore my commitment to the practical application of research in educational and community contexts, promoting innovative curriculum development and pedagogical strategies that integrate immersive media into broader educational frameworks.

As I look to the future, my research will continue to intersect with diverse fields such as public policy, cultural responsiveness, and community engagement. Collaborative projects are in the pipeline, focusing on AR in public works, consumer perception studies related to AI, and the design of culturally responsive educational games. These multidisciplinary efforts are indicative of my drive to produce research that is not only academically rigorous but also pragmatically influential, dovetailing with the strategic goals of leading research institutions committed to advancing knowledge and societal progress.

## Works Cited

1. Fisher, J.A., Shangguan, L., Crisp, J.S.: Developing a Platform for Community-curated Mixed Reality Play Spaces. In: Proceedings of the 2018 Annual Symposium on Computer-Human Interaction in Play Companion Extended Abstracts. pp. 423–429 (2018).
2. Fisher, J.A., Foulger, M., Edwards, J.: Practical Insights for XR Devised Performances. (2019). [https://doi.org/10.1007/978-3-030-33894-7\\_7](https://doi.org/10.1007/978-3-030-33894-7_7).
3. Fisher, J.A., David Bolter, J.: Ethical Considerations for AR Experiences at Dark Tourism Sites. Adjun. Proc. - 2018 IEEE Int. Symp. Mix. Augment. Reality, ISMAR-Adjunct 2018. 365–369 (2018). <https://doi.org/10.1109/ISMAR-Adjunct.2018.00106>.
4. Fisher, J.A., Schoemann, S.: Toward an Ethics of Interactive Storytelling at Dark Tourism Sites in Virtual Reality. In: International Conference on Interactive Digital Storytelling. pp. 577–590 (2018).
5. Fisher, J.A.: Empathic Actualities: Toward a Taxonomy of Empathy in Virtual Reality. (2017). [https://doi.org/10.1007/978-3-319-71027-3\\_19](https://doi.org/10.1007/978-3-319-71027-3_19).
6. Soja, E.W.: Seeking Spatial Justice. University of Minnesota Press, Minneapolis (2010). <https://doi.org/10.1111/cico.12008>.
7. Soja, E.W.: Thirdspace. Blackwell Publishers, Malden (1996).
8. Fisher, J.A.: Location-based Mixed Reality Interactive Narratives and the Complexity of Spatial Justice. In: Koenitz, H., Murray, J.H., and Eladhari, M.P. (eds.) Interactive Narrative Design.
9. Cherne, M.C.: TECHNIQUES FOR CHANGING THE WORLD: THE LEAGUE OF WORKERS THEATRES/NEW THEATRE LEAGUE. (2014).
10. Campbell, R.: Radical Cinema in the 1930s : The Film and Photo League. (1933).
11. Fisher, J.A.: Interactive Non-Fiction With Reality Media: Rhetorical Affordances, (2019).
12. Frasca, G.: Videogames of the Oppressed: Videogames as a Means for Critical Thinking and Debate. Sch. Lit. Commun. Cult. 118 (2001).
13. Engberg, M., Bolter, J.D.: The aesthetics of reality media. J. Vis. Cult. 19, 81–95 (2020). <https://doi.org/10.1177/1470412920906264>.
14. Murray, J.H.: Virtual/reality: how to tell the difference. J. Vis. Cult. 19, 11–27 (2020). <https://doi.org/10.1177/1470412920906253>.
15. de la Pena, N., Weil, P., Llobera, J., Giannopoulos, E., Pomes, A.P., Spanlang, B., Friedman, D., Sanchez-Vives, M. V., Slater, M.: Immersive Journalism: Immersive Virtual Reality for the First-Person Experience of News. Presence Teleoperators Virtual Environ. 19, 291–301 (2010). [https://doi.org/10.1162/PRES\\_a\\_00005](https://doi.org/10.1162/PRES_a_00005).
16. Hidalgo, L.: Augmented Fotonovelas : Creating New Media as Pedagogical and Social Justice Tools. (2015). <https://doi.org/10.1177/1077800414557831>.
17. Samuels, J.T., Ramirez, K.: Building a Virtuous Cycle of Activism Using Art and Augmented Reality: A Community of Practice-based Project. In: Fisher, J.A. (ed.) Augmented and Mixed Reality for Communities. pp. 213–244. CRC Press, Boca Raton (2021).
18. Fisher, J.A.: Strong Concepts for Designing Non-verbal Interactions in Mixed Reality Narratives. Presented at the June 21 (2016). [https://doi.org/10.1007/978-3-319-48279-8\\_26](https://doi.org/10.1007/978-3-319-48279-8_26).
19. Fisher, J.A.: Utilizing the Mixed Reality Cube Taxonomy for Interactive Documentary Research. Proc. 1st Int. Work. Multimed. Altern. Realities - AltMM '16. 9–14 (2016). <https://doi.org/10.1145/2983298.2983299>.
20. Fisher, J.A.: The Ontology of Mixed Reality Agents Memorializing the Dead and Dying. In: Rauterberg, M. (ed.) Culture and Computing. Design Thinking and Cultural Computing. pp. 177–196. Springer International Publishing, Cham (2021).
21. Scott, R.L.: On viewing rhetoric as epistemic. Cent. States Speech J. 18, 9–17 (1967). <https://doi.org/10.1080/10510976709362856>.
22. McComiskey, B.: Neo-Sophistic Rhetorical Theory: Sophistic Precedents for Contemporary Epistemic Rhetoric. (2002).
23. Bogost, I., Losh, E.: Rhetoric and Digital Media. Oxford Handb. Rhetor. Stud. 758–772 (2017). <https://doi.org/10.1093/oxfordhb/9780199731596.013.060>.
24. Fisher, J.A.: Epistemic and Procedural Rhetoric in Virtual Reality Interactive Digital Narrative Non-fiction. Front. Virtual Real. 1.,
25. Murray, J.H.: Hamlet on the holodeck: The future of narrative in cyberspace. MIT press (2017).
26. Fisher, J.A., Samuels, J.T.: A Proposed Curriculum for an Introductory Course on Interactive Digital Narratives in Virtual Reality. In: Mitchell, A. and Vosmeer, M. (eds.) International Conference on Interactive Digital Storytelling. pp. 462–2021. Springer, Cham (2021).