

Research Statement

Over the last decade, my work and study have been focused on analyzing and improving the digital and rhetorical affordances of emerging media for storytelling within communities. My research utilizes concepts from the interdisciplinary field of science, technology, and society (STS) to study and model principles related to interaction design, ethics, documentary, and performance studies for emerging media. Through the last four years of my doctoral study, I've been able to weave this humanist background into a technical skillset to produce a robust design-based inquiry and research methodology. At its core, I design and develop digital platforms based in humanistic principles with and for communities, who, in turn, evaluate the effectiveness of these platforms. From this recursive process, I derive design insights and critically explore how theory as media practice plays out in real-world contexts. I have published this work through IEEE, ACM and Springer conferences such as the International Conference on Interactive Digital Storytelling, Virtual Systems and Multimedia, and CHI Play.

As I move on to the next phase of my research, I will continue designing and developing platforms for community storytelling through emerging media while also critically assessing existing uses of emerging media for storytelling. My general focus has and continues to be augmented, mixed, and virtual reality (A/M/VR). Each medium provides different rhetorical tactics for storytelling that are innate to their material design and digital affordances. My particular perspective, discussed at length in my dissertation, is that the aesthetic grammars of documentary and applied theater are integral to successful A/M/VR experiences. For example, A/M/VR, make implicit claims about what reality is and how it is perceived in a way that is similar to documentary studies. The ways in which documentarians make those claims, through film and existing digital media, can inform the experience design of A/M/VR. Explicitly, the use of a community's physical environment can be used in Augmented and Mixed Reality (A/MR) to establish a foundation of fact that can be rhetorically impactful for a narrative. As these media mature, I will continue developing this aesthetic for community-based storytelling.

My dissertation research draws upon the applied and dialogic performance methodologies of Augusto Boal. His theories underpinned my development of a mobile MR application to facilitate community dialogue and storytelling. The app, called [Applied Theater with Emerging Media](#) (ATEM), is used to explore how A/MR alters the performance methodology and participants' perception of the authenticity, representation, and authority of the stories they create. Keeping with my grassroots methodology, workshops were established via an existing performance studies class on campus. With a grant from the Georgia Tech Office of the Arts, I worked with two undergraduate research teams and applied performance practitioners to develop an interdisciplinary curriculum. Twelve students are learning to connect the traditional performance method to A/MR interaction design. In workshops with 30 other classmates, they combine the two into a novel storytelling practice to create narratives of transformation—stories about how to change the bad or oppressive aspects of their lives on campus into their ideal.

ATEM grew out of another project called [Invisible Cities](#). Based upon Italo Calvino's book, *Invisible Cities* is a mobile app that allows a global community of users to create MR sculptures anywhere in the world while empowering physical communities to moderate content within their own geographic bounds. The app was created to study how public MR art might be curated within a community. Utilizing my same methodology, undergraduate research teams helped to design and develop the app for Georgia Tech's campus. The entire project was built by students, for students, and is now managed by students. In total, 40 students have touched and continue to work with the project. The initial group of students is currently training the next group of to care for the project.

In addition to my design-based inquiry, I also engage in critical and theoretical research on the use of emerging media to tell stories within communities. I draw upon a diverse range of methods including online ethnography, close reading, and grounded theory. My perspective is pluralist, and I explore who benefits from the way these experiences are designed, developed, and engaged with by an audience of users. Further, I explore and critique the interaction design of these stories to uncover their embedded values and cultural ramifications. My most recent work in this space explores how A/M/VR impact dark tourism practices and puts forward some value-based design guidelines for ethical experiences.

My immediate future goal will be to turn my dissertation research into a book along the lines of Pablo Helguera's *Education for Socially Engaged Art: A Materials and Techniques Handbook*. It is a priority for me to provide practitioners of socially engaged theater and art with a set of exercises, as well as an A/M/VR tool to use in their classrooms and communities. I see it as one of the more direct ways to impact the development of an aesthetic and grammar for these emerging forms. While I work toward this goal, I will continue to engage in design-based inquiry into the rhetorical affordances of emerging media for storytelling within communities.