Edited by Virginia Kuhn and Anke Finger

Shaping the Digital Dissertation

Knowledge Production in the Arts and Humanities

https://www.openbookpublishers.com

ISBN Paperback: 9781800640986

ISBN Hardback: 9781800640993

ISBN Digital (PDF): 9781800641006

ISBN Digital ebook (epub): 9781800641013

ISBN Digital ebook (mobi): 9781800641020

ISBN XML: 9781800641037

DOI: 10.11647/OBP.0239

Cover image: Erda Estremera on Unsplash, https://unsplash.com/photos/eMX1aIAp9Nw. Cover design by Anna Gatti.

4. #DigiDiss

A Project Exploring Digital Dissertation Policies, Practices and Archiving

Kathie Gossett and Liza Potts

The Digital Dissertation project, often referred to by the hashtag #DigiDiss, began with a research study in 2008 to better understand the needs of students, faculty and administrators composing and advising born-digital dissertations. In 2012, it expanded to designing and developing tools to advance their efforts and continues to study the emergence of this modality of academic discourse. In this chapter we present the exigence for the project, describe a workshop sponsored by the National Endowment for the Humanities (NEH) focused on gathering requirements for a digital dissertation repository, and briefly touch upon the latest phase of the project, a partnership with the Humanities Commons, as we endeavor to stitch these ideas together into a functioning process and a supportive, long-term network for scholars.

The Need for the #DigiDiss Project

The digital humanities (DH) are increasingly leading the research, discussion and dissemination of scholarship highlighting how computers and computer-enabled technologies transform traditional media and contribute to the production of new modes of expression. Institutions of higher education have responded by creating DH centers and doctoral-level programs in digital media and instructional

 https://doi.org/10.11647/OBP.0239.04

technologies. Researchers in these fields are not simply concerned with studying and describing the phenomena; they seek to perfect the various techniques used to produce digital media, and subsequently use them to interrogate the usual modes of academic inquiry. Yet, despite a growing acceptance of digital media as a form of academic expression, the dissertation, even within DH fields, remains primarily print-based. This is not because doctoral students or committees are unwilling to consider born-digital projects—projects that are conceived and authored as works of digital media—rather, the reticence stems from the fact that there is no mechanism to adequately archive and publish such projects, a requirement at the majority of PhD granting institutions.

At the time of the project, ProQuest/UMI Corporation enjoyed a near monopoly in dissertation publishing in the United States through legal arrangements negotiated with doctoral-granting institutions. ProQuest was just beginning to pilot a system through which doctoral candidates could submit and publish their dissertations digitally, but it only allowed them to do so via the proprietary PDF format developed and maintained by the Adobe Corporation. Even as current PDF formats allow for the embedding of certain types of media (e.g., URLs, images and video) ProQuest's digital option continues to allow only for a print-based model of publishing focused on words. Since many works of digital media conceive of words as simply one of a number of modes that are integrated into complex visual, audio and interactive forms of digital performance, these requirements can impose considerable impediments and even misrepresentations, undermining the overall message of scholarly work. In effect, these requirements are obsolete. And since publication through ProQuest is often mandated by doctoral institutions as a condition for successful graduation, doctoral candidates often find themselves having to produce two versions of their dissertations: one representing their born-digital scholarship (e.g., interactive webtexts, software, apps, games, etc.) and another satisfying the need to deposit the dissertation into an archive (e.g., print-based PDF, etc.).

As an alternative to ProQuest, many institutions began installing and maintaining their own digital archive systems. The most common system in use at the time the #DigiDiss project started was Virginia

Tech's Electronic Thesis and Dissertation (ETD) system.[1] Much like ProQuest, the ETD system privileged print-based formats over multimedia or interactive formats. Although it was possible to deposit a majority of digital formats in an ETD system, file size and quantity restrictions meant that most born-digital projects had to be condensed into an archived file type (e.g., .zip or .dmg), requiring future readers to download and expand the project before accessing it (assuming the software is not out of date). In addition, the ETD system was a turn-key system;[2] that is, each university purchased, installed and maintained a unique instance of the system for their campus; therefore, unless the university decided to participate in one of catalogs maintained by the Networked Digital Library of Theses and Dissertations (NDLTD), there was (and still is) no central repository or search engine for ETD systems. The participants in the workshop during Stage 2 of the project explored the possibilities for building on the NDLTD framework to develop a national open-source and open-access archive as well as brainstormed ways to maintain the archived projects so that they remain accessible beyond current versions of software and coding languages—something neither ProQuest nor the ETD system do.

Project Stages

The core project team, Kathie Gossett, Liza Potts and Carrie Lamanna,[3] came from varied backgrounds in both industry application and academic research. Two of us encountered barriers for producing digital dissertations in our home institutions for various reasons (policies, time, access), and we determined to continue to look for ways to support scholarly research that results in born-digital dissertations and other digital scholarship across our disciplines.

1 Throughout this chapter, when the term ETD is used it refers to this original program developed and disseminated by Virginia Tech, which has since evolved into VTechWorks.

2 A 'turn-key system' is a program or system that is ready for immediate use as it comes 'out of the box'. It may support some customizations, but it is not designed or developed 'from scratch for different clients. Content management systems such as Canvas and Blackboard are turn-key systems.

3 Carrie Lamanna was the co-PI on the project with Kathie Gossett in 2008 and was a participant in the workshop described below. She left the project team after that stage.

This project began in earnest in 2008, and is ongoing with the following stages:

Stage 1: 2008–09—Study and field survey. Investigated the barriers graduate students and faculty advisors encountered when attempting to complete a digital dissertation. Conducted by Kathie Gossett and Carrie Lamanna.

Stage 2: 2012—Workshop sponsored by the National Endowment for the Humanities at Michigan State University. Gathered the first set of requirements and identified stake holders for a digital dissertation repository. Led and facilitated by Kathie Gossett and Liza Potts.

Stage 3: 2013–17—Thrashing and general weeping. Figuring out storage, networking, technology and other design issues. Work conducted by Kathie Gossett and Liza Potts.

Stage 4: 2018+—Working with Humanities Commons. Research and prototyping for implementation conducted by Kathie Gossett, Liza Potts and Kristen Mape.

Stage 1: Study and Field Survey

In 2008 and 2009, Kathie Gossett and Carrie Lamanna conducted a study into the status of digital dissertations in the field of Writing Studies. They collected survey and interview data from both faculty and graduate students—the majority of whom were drawn from the sub-discipline of Computers and Writing—regarding their experiences with born-digital dissertations. The findings, presented at both the Conference on College Composition and Communication and Computers and Writing in 2009, were surprising. Despite the early history of born-digital dissertations in the field (e.g., Christine Boese's 1998 dissertation)[4] and the well-known example of Virginia Kuhn's 2005 dissertation at the University of Wisconsin, Milwaukee,[5] the support for such types of dissertations

4 Christine Boese, 'The Ballad of The Internet Nutball: Chaining Rhetorical Visions from the Margins of the Margins to the Mainstream in the Xenaverse' (PhD dissertation, Rensselaer Polytechnic Institute, 1998), http://www.nutball.com/dissertation/

5 Virginia Kuhn, 'Ways of Composing: Visual Literacy in the Digital Age' (PhD dissertation, UW-Milwaukee, 2005).

was still very problematic. In fact, of the twenty-four graduate students interviewed for the project, all of whom identified themselves as planning to complete a born-digital dissertation in the initial survey, only two actually completed their project.

The study found four key obstacles to digital dissertations: 1) most graduate curricula, even in digital media-focused programs, did not include courses in digital authoring, thus requiring students interested in pursuing this type of scholarship to spend extra time (often years) learning the technologies they needed to complete their dissertation work; 2) a lack of institutional policies regarding born-digital dissertations; 3) the vast majority of the faculty had no experience evaluating digital work and did not feel qualified to do so; and 4) the inability to deposit or archive the digital work (often a requirement to complete a doctoral degree), since, at the time, the majority of venues for depositing dissertations did not accept born-digital dissertations.

At the time, we (Gossett and Potts) worked together in an English department at a medium-sized, east coast institution that had a graduate program in new media, where we were supervising students whose dissertation projects should have been either fully or partially born-digital. It quickly became apparent that the largest barrier to these projects at the institution was the requirement to deposit dissertations with ProQuest, which did not accept born-digital dissertations. (As noted above, ProQuest did accept 'mediated' PDFs, that is PDFs with embedded links or other media, but it did not accept born-digital projects such as websites, animations, videos, etc.) Given our industry backgrounds in user experience (UX) and software development, we decided we would build an open-source, open-access repository for dissertations.

Stage 2: Workshop with Stakeholders

In 2012 we, Gossett and Potts, received a level two start-up grant from the NEH's Office of Digital Humanities to hold a three-day workshop at Michigan State University. We gathered thirteen participants from across the United States—scholars, librarians and graduate students in DH, library and information sciences, and digital publishing—and asked them to help us identify the issues, opportunities and requirements for

developing an open-source and open-access system into which born-digital dissertations (e.g., interactive webtexts, software, apps, games, etc.) could be deposited and maintained, and through which they could be accessed and cross-referenced.

The three-day workshop utilized UX methods to gather data about existing systems as well as identifying key users and stakeholders for the project and to begin identifying system requirements for a digital dissertation repository. Throughout the workshop participants cycled through group discussion, tool critiques and breakout sessions to articulate key issues, discuss limitations and possibilities for solutions, and created a first-cut needs assessment and conceptual design for a digital repository for born-digital dissertations.

Day One: Defining Key Concepts and Landscape Analysis

During the first day of the workshop, we introduced the project and defined key concepts. With the participants, we performed a landscape analysis to better understand how digital dissertations were being produced, supported and submitted across DH and humanities programs. This method is a process of analyzing the competition and identifying best practices so that designers can gain a better understanding of how a system should function. The workshop participants began this process by brainstorming a list of systems currently in use at universities to archive digital scholarship and/or dissertations, developing a list that included: Collex, Fedora Commons, RU Core, Digital Commons, DSpace, ETD, Content DM and GIT Hub. Subsequently, the participants examined characteristics of each system such as the ability to embargo/restrict access to the digital work for a specific period of time, the ability to perform a faceted search of the digital works, the depth of the metadata capabilities of each system, and whether or not the system(s) was open-source and/or open-access.

Based on the inventories collected during the landscape analysis, the workshop participants went on to compile preliminary requirements for a possible digital dissertation repository. These requirements included features that we thought the system should have (e.g., a federated search mechanism, responsive web and server design, metrics for tracking use of the system, etc.) as well as some of the challenges these features

might pose (e.g., aligning institutional priorities with discipline-specific priorities, maintaining—not just archiving—digital artifacts, whether the system should follow a federated or single-source model, etc.). This led to a discussion on possible users/participants/stakeholders of these systems, which include department chairs, graduate deans, dissertation committees, graduate students (current as well as future), research assistants, librarians, university CIOs, provosts, IRB committees, publishers, DPLA, scholarly societies, research grant agencies, research participants/subjects and other databases (e.g., LexisNexis, ERIC, etc.).

Day Two: Developing ANT diagrams, Needs Assessment, and Personas

During day two of the workshop, we created rough versions of actor-network theory (ANT) diagrams,[6] conducted a preliminary needs analysis, and outlined personas based on our workshop participants' brainstorming, discovery, and discussion. First, we walked through the process of creating ANT diagrams (a design methodology developed by Liza Potts and based on actor-network theory). These diagrams help teams document all of the actors (people, places, organizations and technologies) that will be involved in the proposed system.[7] By visualizing these ecosystems, design teams can better understand the spaces in which a new technology will be deployed. Because the context in which digital dissertations are developed, defended and deposited are extremely complicated and often unclear, these diagrams were our first step towards better understanding the problem space from the perspective of our workshop participants (i.e., one set of project stakeholders). They proved to be an excellent brainstorming activity for our participants, as each worked to come up with a central figure that would work within the proposed system (e.g., the dissertator) and devise other actors who might support or even hinder their work (e.g., the dissertation chair/committee).

Next, we took these ANT diagrams and used them as a way of understanding the needs of the multitude of people and organizations

6 Liza Potts, 'Diagramming with Actor Network Theory: A New Method for Modeling Holistic Experience', *Proceedings of the IEEE International Professional Communication Conference* (2008), 1–6, https://doi.org/10.1109/IPCC.2008.4610231

7 Ibid.

participating in these spaces. Conducting a needs analysis means that we researched, discussed and documented the strengths, issues, concerns and weaknesses of all of the relevant actors in the system. Workshop participants took turns discussing the various needs, policy considerations and administrative constraints under which each proposed user would need to operate. One of the tools used to help workshop participants better understand user needs was *empathy mapping*, which assists designers both in gaining a deeper understanding of users as well as in identifying gaps in their understanding of users.[8]

Finally, we used the ANT diagrams and the needs analysis to help us decide which people and organizations required critical attention in order to launch any proposed solution. From this data we began to work on personas. Personas are applied in UX research to help design and development teams get a clear picture of who would employ a specific system and how it would be utilized. They tell the story of the central participants that any new technology or process would need to support. Although we knew we would eventually have to go back and refine these drafts, day two allowed us to gain valuable insights from our workshop participants and co-create this material in close collaboration.

Day Three: Identifying Next Steps

After debriefing the work of the previous two days, the third day's focus was on next steps. Participants brainstormed and made lists of potential future participants and advisory board members, as well as target grants, funding agencies and publication venues.

Workshop Findings and Yield

The workshop provided an excellent opportunity to bring together senior and junior scholars, graduate students and academic professionals to discuss the needs, issues and opportunities for archiving digital dissertations. While preparing for the workshop, we were very optimistic about the depth of scope for the workshop. During the workshop itself we quickly realized that the subject-matter experts were best situated

8 See David Gray, Sunni Brown and James Macanufo, *Gamestorming: A Playbook for Innovators, Rulebreakers, and Changemakers* (Boston: O'Reilly Media, 2010).

to discuss stakeholder needs, best practices and university procedures more so than design a system. We were able to shift into discussing the process of developing and implementing the system, rather than focusing on the user interface, database structure or information architecture of such a system. This kind of guided conversation led us to understand that there was a need not only for an archiving system, but that it should be a federated network of networks (i.e., a system installed and maintained at individual institutions networked together rather than one central repository installed and maintained at a single institution) that could catalog these dissertations.

After the workshop we, Gossett and Potts, spent several months analyzing and categorizing the research and data gathered during the workshop. Ultimately, we developed the four major findings below and reported them in the project white paper for the NEH.[9]

System Features and Best Practices. These practices included a federated search mechanism, responsive web and server design, and metrics for tracking use of the system.

Potential System Challenges. These challenges include aligning institutional priorities with discipline-specific priorities, maintaining—not just archiving—digital artifacts, and whether the system should follow a federated or centralized model.

Project Stakeholders. Workshop participants identified project stakeholders. The list of stakeholders included those internal to the university (e.g., provosts, department chairs, graduate students, etc.) and external to the university (e.g., governmental funding agencies, external systems, industry recruiters, etc.).

Project Partners. Workshop participants analyzed the market for digital dissertation systems and discovered some existing areas of opportunity for a repository and, thus, several potential partnerships with existing systems. In addition, the workshop group spent the majority of day

9 For further detail, including the landscape analysis data, ANT diagrams and personas described in this section, refer to our NEH white paper, 'Building an Open-Source Archive for Born-Digital Dissertation', *NEH White Paper* (2013), https://bit.ly/3lxxODr

three brainstorming a list of potential partners and strategic alliances for a digital dissertation repository project in the future.

Stage 3: Storage, Network, Technology and Design Concerns

Clearly, given the climate for digital dissertations and the technological shifts that were and are occurring, the technology, processes and policies had to catch up with the needs and desires of digital humanists. Faculty members were just beginning to appreciate the amount of work, time and effort that it would take to create a digital dissertation, especially if the dissertation was to remain a solo endeavor. Students lacked access to examples. Administrators and faculty wanted to ensure that students would be able to make their work legible to hiring committees while also displaying the training to produce both future multimedia and traditional scholarship.

In the meantime, we came to believe that a strong network that would live beyond the dissertation moment would potentially outweigh the need to house and archive the dissertation materials. It marked the moment the core team turned from designing a *discrete system* towards thinking through what a *networked system* that would link scholars and their digital scholarship would look like. We worked with partners in the Michigan State University library to brainstorm ideas about these kinds of networks, debating design ideas that would work for DH. We thought through how and why someone would use the system and designed multiple versions of wireframes, low fidelity drawings that depicted what each screen in the system would look like. We built prototypes and tested them. And we continued to iterate each time we became aware of technologies that would simplify processes or solve problems we identified.

In the end, we realized that simply creating a new system or piece of technology was not the answer to the problem, nor was creating a new network. Networks such as Mendeley, Academia.edu and others had begun to emerge as places for academics to store and share their work, as well as connecting it to the work of other scholars. These spaces were making the dissemination of scholarship open-source *and social*. We realized that we needed to wait and see what the academic community would do with these spaces.

In one sense this pause might mark the #DigiDiss project as a failure; we did not create the tool we set out to design. However, in the process of trying to create one specific tool, the research we did and the issues we uncovered revealed that the challenge of born-digital dissertations could not be solved by creating a new system. While some of the issues we identified required technology that had simply not been invented (and in fact some have yet to be invented at the time of this writing), we came to understand that the challenge of born-digital dissertations was more complex than that. Longstanding institutional attitudes and habits still remained. The issues encountered by students and faculty in the original study in 2008–09 were still problems a decade later. Many institutions had moved forward technologically by creating digital depositories for scholarship and dissertations, but some academic attitudes towards born-digital scholarship had not moved forward with it. At the same time, new academic social spaces were giving scholars and graduate students ways to disseminate and control their scholarship outside of traditional scholarly venues (e.g., pay-wall blocked journals and archives).

One of the guiding principles of UX design is to 'put human needs, capabilities, and ways of behavior first, then design to accommodate those needs, capabilities, and ways of behaving'.[10] Through the iterative process of ethnographic-style research and design work we did for this project during this stage we came to realize that building a digital dissertation repository would not solve the true needs of the majority of the stake holders we identified on the first day of our workshop in 2013 (e.g., department chairs, dissertation committees, graduate students, etc.). So, we opted to suspend working directly on the #DigiDiss project while continuing to track how the academy began to use the social media-based archiving systems, both those already in use and those that were emerging at the time.

Stage 4: Partnering for Network Stability and Sustainability

While we brainstormed, prototyped and considered implementation solutions, technologies advanced and the field progressed in its thinking about digital scholarship. New networks began to emerge

10 Don Norman, *The Design of Everyday Things* (New York: Basic Books, 2013), p. 8.

and gain currency. One of those networks was the Modern Language Association's (MLA) Humanities Commons (HC), which has since moved to Michigan State University.[11]

The HC is based on the Commons in a Box platform originally developed at City University of New York and the CUNY Graduate Center. It is a 'nonprofit network that enables humanities scholars and practitioners to create a professional profile, discuss common interests, develop new publications, and *share their work* [emphasis added]'.[12] It is an open-access, open-source, and non-profit space owned and governed by academics. In addition to the social media/sharing aspect of the system, it is built around the Commons Open Repository Exchange (CORE), which 'allows users to preserve their research and increase its reach by sharing it across disciplinary, institutional, and geographic boundaries'.[13]

By 2018 the HC had emerged as *the* space for humanities scholars to gather online and share their scholarship. More, the CORE system met or exceeded the requirements we had developed for the digital dissertation repository. While the HC was primarily targeted to scholars in humanities fields, researchers from across the disciplines were joining and depositing their work in the system. So, in the Spring of 2018, we partnered with Kristen Mapes at Michigan State University to pursue new implementation possibilities.

The Case for Humanities Commons

Potts began exploring the HC on the advice of Mapes, a DH specialist in the College of Arts and Letters at MSU. Recognizing the HC network and the archive as a powerful combination for a possible digital dissertation repository solution, we decided to proceed with an HC proof of concept and met with Kathleen Fitzpatrick, the Director of Digital Humanities at MSU and lead of the Humanities Commons. Over the course of several

11 'In November 2020, the fiscal responsibility and hosting of Humanities Commons moved to Michigan State University, where the network is developed and maintained by members of the MESH Research team' (Humanities Commons, 'About Humanities Commons', *Humanities Commons* (2016), https://hcommons.org/about-humanities-commons/).

12 Ibid.

13 Ibid.

weeks, the team created a project brief they could deliver to Fitzpatrick and the HC team. After their approval, the team proceeded with the first stage of the project which had shifted from an emphasis on archives to a focus on networking and linking scholars to their digital authorship as well as to each other.

The second stage of the project focused on the processes for using the HC. Working with research participants at an exemplar university, Mapes conducted stakeholder interviews and focus groups to learn more about their process for using the HC to create their school network and the HC repository for submitting, archiving and cataloging their dissertations for humanities, social science and STEM disciplines. Based on the data Mapes brought back, we worked with her to create interface prototypes. We tested these prototypes and made recommendations to the HC to implement those prototypes. We hope to continue our work with the HC stakeholders to create a content strategy aimed at dissertating students, their faculty advisors and university administrators who are interested in using HC for their network and repositories in the future.

Conclusion

The #DigiDiss project, which for us includes all stages of the project, is an example of the excitement and the perils of DH work. Begun in 2008 as a mixed-methods research study, we chose to focus on what we thought was the most 'solvable' of the findings of that project: the inability to deposit or archive the digital work. The turn of many humanities scholars to learning code and developing scholarly tools made it possible for us to determine to build the archive that was missing: a digital dissertation repository. Given both of our backgrounds in software development and UX in industry, we felt that this was a project we could take on and guide to fruition with the help of some of those scholars.

It was an exciting moment. We were invited to speak on panels at multiple conferences and were invited to give the keynote address at the 'Research in the Digital Age Symposium' at Trinity College Dublin, Ireland in 2015. Digital dissertations seemed to be emerging as an acceptable form of the dissertation in the United States and internationally. The #digidiss twitter feed was active and trending within academic communities. We connected with graduate students building

digital scholarly editions, creating comics, building tools, making documentary films and writing and recording hip-hop albums as their dissertation projects. However, as we began the work of gathering requirements and designing the tool we envisioned, the perils of DH work began to emerge.

As we discussed above, we realized two things: first, some of the technologies we would need to make the system sustainable and successful were barely on the cusp of being developed; second, building the tool would not actually solve the larger problem. The institutional policies and attitudes toward digital scholarship at both the graduate and faculty levels were (and are) complex. Attitudes of faculty as well as the institutional policies that govern them and graduate dissertation projects are still evolving. Additionally, much of the work (and life) of digital researchers and scholars moved to networked (and social) spaces. While publication in peer-reviewed books and journals is still the accepted norm, many digital scholars have also chosen to share their work across open-source, open-access systems like the Commons networks. While we were focused on building the perfect repository for born-digital dissertations, networks like the HC built systems that supported the archiving and dissemination of digital research and scholarship of all types (i.e., born-digital and print-made-digital—such as PDFs). So, ultimately, we realized we didn't need another tool, we just needed to work with the HC to develop tools within their network for those we mentioned above: dissertating students, their faculty advisors and university administrators who are interested in using HC for their network and repositories in the future. Additionally, we continue to advocate for and encourage the development of born-digital dissertations at our institutions and in the academic societies in which we participate. The work continues, as do the born-digital dissertations.

Bibliography

Boese, Christine, 'The Ballad of The Internet Nutball: Chaining Rhetorical Visions from the Margins of the Margins to the Mainstream in the Xenaverse' (PhD dissertation, Rensselaer Polytechnic Institute, 1998), http://www.nutball.com/dissertation/

Gray, David, Sunni Brown and James Macanufo, *Gamestorming: A Playbook for Innovators, Rulebreakers, and Changemakers* (Boston: O'Reilly Media, 2010).

Humanities Commons, 'About Humanities Commons', *Humanities Commons* (2020), https://hcommons.org/about-humanities-commons/

Kuhn, Virginia, 'Embrace and Ambivalence', *Academe*, 99.1 (2013), 8–13, https://eric.ed.gov/?id=EJ1004358

Kuhn, Virginia, 'Ways of Composing: Visual Literacy in the Digital Age' (PhD dissertation, UW-Milwaukee, 2005).

Networked Digital Library of Theses and Dissertations, http://www.ndltd.org/

Norman, Don, *The Design of Everyday Things* (New York: Basic Books, 2013).

Potts, Liza, 'Diagramming with Actor Network Theory: A New Method for Modeling Holistic Experience', *Proceedings of the IEEE International Professional Communication Conference* (2008), 1–6, https://doi.org/10.1109/IPCC.2008.4610231

Potts, Liza, *Social Media in Disaster Response: How Experience Architects Can Build for Participation* (New York: Routledge, 2014), https://doi.org/10.4324/9780203366905

Potts, Liza and Katherine Gossett, 'Building an Open-Source Archive for Born-Digital Dissertation', *NEH White Paper* (2013), https://bit.ly/3lxxODr

Salvo, Michael and Liza Potts, eds, *Rhetoric and Experience Architecture* (Anderson, SC: Parlor Press, 2017).

VtechWorks, https://vtechworks.lib.vt.edu/