

STUDENT EXPERIENCES WITH INSTRUCTIONAL VIDEOS
IN ONLINE LEARNING ENVIRONMENTS

by

Melanie Cecile Hibbert

Dissertation Committee:

Professor Lalitha Vasudevan, Sponsor
Professor Marjorie Siegel

Approved by the Committee on
the Degree of Doctor of Education

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ABSTRACT

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Melanie Cecile Hibbert

Drawing upon qualitative methods of semi-structured interviews and observational talk-through interviews, this qualitative dissertation investigates the ways in which graduate students in an online course context experience online instructional videos. A conceptual framework of user experience and multimodality, as well as the framework of sense-making developed by McCarthy and Wright (2004) guided this study and data analysis. The findings of this dissertation have implications for how students are participating in, interacting with, and making sense of online learning environments. Some of the findings of this research include: (a) students do not necessarily experience course videos as discrete elements (or differentiate them with other aspects of the course); (b) the times and contexts in which students view instructional videos shifts (e.g., between home and commuting); (c) student motivations and expectations shape how they approach and orient themselves towards watching online course videos; and (d) multimodal design elements influence students' meaning-making of online instructional videos. These data findings are all in support of the overarching conclusion of this dissertation, which is that students have significant agency in these online environments, and their meaning-making of online videos may not align with designers' intentions. This conclusion argues against deterministic views of design. The emerging findings have

design implications related to the creation of learning environments in online spaces, such as: (a) fully integrating videos within the broader instructional design of a course; (b) foregrounding the embedded context of instructional videos; and (c) accounting for the shifting times, places, and contexts in which viewers watch instructional videos. This dissertation is situated in the growing field of online education, in particular higher education, where significant money and resources are increasingly dedicated towards the development of online spaces while still much is unknown in relation to the design, experiences, and impact of these online learning environments.

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DEDICATION

This doctoral dissertation is dedicated to my late grandfather, Gerard Blouin, an immigrant with a fourth-grade education who taught me to never stop learning.

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PREFACE

Before I introduce this dissertation and the research questions, I begin with a vignette of my own personal experiences, mostly grounded in my professional involvement working as a teacher in rural Alaska. This preface introduces my pathway to graduate school, and why I first became interested in the threads of inquiry that developed into this dissertation. While this personal narrative does not concretely link to my dissertation methods and findings, I believe it is a way to frame this project, as it aims to invite the reader to consider the multiple pathways of knowing and communicating (especially in education spaces), as well as reflect on the trajectory of online and distance learning.

A few months after completing my undergraduate degree, I found myself on a dirt landing strip in rural Alaska, in an Athabascan Native village located on the Yukon River. This village was only accessible by airplane, a remote, 380-person town with a single post office, church, general store, and school. The inhabitants were almost all Alaska Natives, and the subsistence activities of moose hunting and salmon fishing persisted from traditional ways of living. Modernizations such as electricity, running water, and the Internet had arrived; but residents still kept dog teams, trapped and hunted, and practiced traditions such as Stickdance and potlatches.

I was an Alaska Teaching Fellow, a participant in a program that places college graduates without teaching certification into high-needs schools. My position was the High School English and Social Studies teacher; I was one of three high school teachers working with 30 secondary students. My teaching load comprised of six different courses a day, including English grades 9-12; and various other classes, such as Alaska Studies, Geography, Drama, Art, Digital Photography, Yearbook, and Keyboarding.

It was a very challenging position for multiple reasons. The school's resources were limited (the geography textbooks continued to list the USSR as a country). Classroom management was a challenge. There were gaping disconnects between the mandated curriculum and the local reality of this rural, Alaska Native context and the lived experiences of my students. This was especially apparent given the pressure we faced to raise test scores for No Child Left Behind accountability standards; we were explicitly instructed to "teach to the test" and spend class time on test practices. I remember reading test questions about roller coasters and traffic signs, items nowhere to be found in this Interior village.

From an English teaching and literacy perspective, I found my job to be especially difficult. Most of my students were reading four years or more behind grade level. They were coming from a village where there was no print anywhere; no signs, no menus, no daily newspapers. Their grandparents' first language was Athabascan, and print literacy had only been introduced in the past sixty years or so. The books required by the district office curriculum were by and large unrelated to the students' culture and daily lives. There were some successes, however. All students passed the writing portion of their High School Qualifying Exam, and we created the first yearbooks the school had had in

over a decade. Additionally, the school had many unique and inspiring elements. For example, when the school lunch program was running low on funding, members of the community went out and hunted a moose. The moose was brought to the school, and classes were cancelled for the day as students helped to pack and process the meat. Moose meat (including dishes such as mooseburgers and moose soup) became part of the lunch program for the rest of the year.

The second year I worked as a teacher at this school, an independent researcher from the “lower 48” received a large federal grant to implement a new computer lab. The lab included 50 new iMacs, a color printer, a scanner, and digital cameras. I began incorporating technology more often into my English classes. This began with word processing and research; then expanded into website authoring and visual slide show creations. Additionally, classes such as Digital Photography and Yearbook involved using computers, cameras, and web based tools on a daily basis. While there were still challenges, I found that using technology had a positive effect on my teaching. Classroom management issues were not as significant. Students were able to produce multimedia artifacts (and in the process, learn English composition and computer skills), with less tension than writing five paragraph essays. From this experience grew a more serious interest in ways technology can teach and support literacy. From my classroom encounters, it made sense that participants from a traditional subsistence, oral culture would have stronger orientations toward visual modes. As Rupert Ross (1992) explains in his chapter “Being Indian is a State of Mind,” there is a mental process and attunement one must have to the surrounding environment when living a subsistence lifestyle—a person must constantly read the visual cues of the natural world, and cultivate an

awareness of how to be at the best place, “at the right moment.” Ross describes how this mentality is distinctly non-verbal:

Just as my fellow guides could not explain why they chose to fish some spots over others, and I could not explain how I knew a storm was approaching, it is my guess that a great many things in the hunter-gatherer way of life might have similarly defied what we call "reasoned" explanation. I postulate, in fact, that the question "Why did you do that?" was rarely asked, simply because the only answer would be something close to "It felt right" or, in perhaps the ultimate expression of how the reasoner perceives his conclusions to be formed, by saying "It came to me." (p. 87)

While I can only surmise reasons why my Alaska Native students responded much better to digital photography and web design over print reading and writing, I found in my singular teaching practice that these activities were successful. The thread of multimodality, and non-verbal ways in which learners create and express knowledge, is part of what led me to graduate school.

In addition to my experiences teaching high school, I also had my first experiences with online and distance education (2004-2006). As a participant in the Teaching Fellows program, I received state funding to earn my teaching certification and master’s degree in Education. This program was developed and executed through distance education, as it involved teachers working in bush Alaska, located in remote villages all over the state. My classes were held over the phone, over conference calls; we used the learning management system Blackboard for discussions and posting files. Another dimension of distance learning that I gained exposure to was a video conferencing system installed to connect village schools through the district (which stretched across vast swaths of rural Alaska). This video conferencing system allowed for distance education classes; notably, one elder located in a village hundreds of miles away taught an Athabascan language

course which students could attend after school, watching the elder instructor through a large video monitor. A few times my English class was able to videoconference with an English class located a couple hundred miles away, and we could discuss books we were all reading. While distance education in general at that stage, from my perspective, remained largely underwhelming—marred with technical difficulties and un-engaging delivery platforms—its potential to collapse distances, draw in all types of students, and offer valuable resources was undeniable.

After I left Alaska, I continued with education and education research work. I also worked on a variety of projects in the field of media production. As a graduate student at Teachers College, I was employed at EdLab, a research and design lab at Teachers College, as a graduate assistant video producer. One of the primary projects I worked on was a weekly web video series based on scholarly research publications in *Teachers College Record*. These videos were three minutes long, emailed to a listserv reaching approximately 44,000 people, and essentially were video “summaries” of journal articles featuring the author(s) of the articles. There were many elements to consider in the production of these videos, including: how can visuals enhance the communication of the research ideas? What is a model use case of a “translation” from academic text to video? How could these videos be used in an educational context, such as undergraduate courses that introduce research? Is the main value really in the creation of researcher presence, so that viewers have a stronger social connection to the content? Additionally, I worked as a graduate research assistant on a multiyear, ethnographic project working with court-involved youth placed in an alternative-to-detention after-school program. In my role with this project, I was a participant-observer, both a facilitator of arts-based workshops

and a researcher writing field notes and gathering participant artifacts. Along with the research team, some of the questions I investigated included: what modal resources do youth draw upon for meaning-making? What types of roles and social negotiations occur in informal video production workshops? What types of videos did youth create in these informal learning spaces, given various constraints? These questions and considerations continued my inquiry into multimodality and multimodal artifacts; distance and online education; and video and other forms of media.

After my role at EdLab, I began working full time as a media producer at a higher-education institution. My primary role in this position was to produce video content for a wide array of professional master's degree online programs. This context is the basis for the following dissertation, and for my continued examination of multimodality, media, and education. While the online professional master's programs at this elite university (with price tags ringing up to over \$60,000 in tuition) are a far cry from the context of a 30-student, Alaska Native high school located on the Yukon River, there are overlapping threads. My teaching, research, and design experiences suggest that learners—whether from an indigenous culture or professional adult graduate students—have orientations towards different modalities, and gain educational value from different instructional modes. And while distance education continues to have the same problems I first encountered years ago—technical difficulties, uninteresting platforms and delivery systems, and lackluster pedagogical strategies—it is an area that continues to expand and merits more research. In this project, I aim to examine the student experiences in an online, multimodal environment; in particular, how students are making sense of their

experiences with instructional videos in online courses; that is, in what multisensory ways are they engaging, perceiving, and interacting with these semiotic artifacts.

Chapter I

INTRODUCTION

This research study emerged from my first-hand, professional experiences as a media producer with a team at a higher education institution that develops online programs, primarily online professional master's degree programs. In my role as a media producer, I collaborated with the instructional design team, the media team, and faculty partners to strategize opportunities for video content in their online courses. Once we developed a plan, I worked on scripting, storyboarding, logistics; production; and post-production (editing, uploading, embedding). The media assets we developed encompassed a wide range in production value and purposes. They included animated videos, scripted simulations with actors, "talking-head" lectures, screen-captured videos, and so forth, with purposes ranging from content delivery, to proposing a scenario for students to discuss, to guest speakers explaining industry experience, etc.

Throughout my tenure in this role, I began to form certain opinions about what comprised a "successful" video. Many of these opinions were subjective and anecdotal—there were certain videos I personally found more engaging, or interesting, or aesthetically pleasing (recognizing of course my own biases since I was intimately involved in the production and creation of many of these videos). Some of these opinions

were also formulated based on data points, particularly from the analytics of our video hosting platform (the digital content management company Kaltura). While data analytics do not tell a full story, they carry certain implications; there is something to be deduced about a video, embedded in an online course with 30 students, that has 100 views in contrast with a video embedded in the same context that has 10 views. Similarly, there are inferences that can be made about a video that was watched, on average, at a play-through rate of 20% (for instance, the average viewer watched a 10-minute video for only 2 minutes) in contrast with a video that had a play-through rate average of 95%.

Based on these parameters, I began to form certain opinions about “successful” videos, or what were certain characteristics of “successful” videos. One such view was related to the length of the video—the analytics demonstrated that shorter videos had much higher play-through averages (so for instance, a 4-minute video might be watched for an average of 3 minutes and 45 seconds, as opposed to a 45-minute video, which might be watched an average of 7 minutes and 30 seconds). This, in turn, influenced our instructional design decisions; over time, we created video content that was shorter in nature (typically 5 minutes or less), or if we were producing longer-form lectures, we “chunked” out the longer form video into sub-videos. Another correlation demonstrated in the analytics is that videos directly connected to course assignments, especially course assessments, had the highest numbers of views. For example, one of the most-watched course videos during my time working with this team was a “Breaking News” simulation; this occurred in a communications course, where the instructor wanted to simulate a real-world situation. Students, working in groups, were tasked with formulating communications strategies for different stakeholders; partway through the assignment,

they were messaged a “Breaking News” video (a simulated news broadcast), which contained new information they had to integrate into their plans in a short timeframe. This video received hundreds of views, which suggests it was watched and re-watched many times.



Figure 1. Screenshots from a “Breaking News” video simulation, a course video with some of the highest number of views throughout the 2012-2014 academic years

From my professional experiences working in this context, I held certain ideas and beliefs about “successful” videos (such as producing assets shorter in length, or integrating videos directly with course assignments); these opinions derived from the video hosting analytics, or my own subjective perceptions about which videos were engaging or purposeful. However, over time I began to realize that the experiences and perspectives of students—the users, the learners, the audience for whom these video assets are designed for—were missing from these perceptions of online instructional videos. Additionally, assigning value to certain types of media assets—such as a video

with high view numbers—carries many unexamined assumptions. (High view numbers does not necessarily equate to meaningful learning experiences, for instance.)

On a daily basis, interfacing with designers and other media team members as well as the faculty, working on content slated to be launched at least a semester in the future—completing editing and other production tasks at my computer—it became easy to lose the perspective of the students, and to know exactly *how* this content was being taken up in their lives. As I started to think more deeply about the “success” of these videos, I realized a key viewpoint was missing: that of the students in this context (the learners, the users). The standpoint of wanting to know more about how students are actually engaging with these resources, and taking seriously their lived experiences with online courses; these inquiries became central to beginning this dissertation study.

Artifacts versus Experiences

I would also like to discuss how this project has changed over time, and how the focus has shifted. In earlier iterations of my research questions, the intent and purpose behind this project had a strong focus on the online *videos*. That is, what characteristics of instructional videos correlated with impact (whether that was measured through engagement, or student satisfaction, or discussion responses, or some form of self-reported or observed learning). This emphasis on investigating the videos themselves was especially reflected in the methodologies. In earlier versions, the methods had a focus on the video artifacts, in the form of investigating the back-end data analytics from the video hosting platform (e.g., number of views and play-through rates); as well as artifact analysis, in particular multimodal analysis. Multimodal analysis is an approach of closely

examining the semiotic resources found in some type of “text” (such as a comic strip, or a website, or a video); it is a method that allows for a rich and close read of multiple modes (such as text, audio, framing, dialogue, and so forth). Multimodal analysis is a type of “yardstick” to measure and assess the diversity of the ways in which semiotic resources work in partnership to create meanings (Bauldry & Thibault, 2006).

However, as I conducted this research (especially as I carried out semi-structured interviews), I came to understand the true questions and focus of this dissertation concerned the student *experiences* with the videos, and not the video artifacts. One of the benefits of qualitative research is that it allows for flexibility and change, and so this project iterated and shifted. The methods focused on the video artifacts (analytics and multimodal analysis) were eliminated from this study; the conceptual framework was also modified to incorporate the field of User Experience, an area of research that considers the ways in which people interact with and experience technology. Thus, while this research study suggests certain design implications for online instructional videos, the focus is not on the video artifacts themselves or their characteristics; rather, it is on how students are experiencing the videos (harkening back to my original questions as a media producer).

Online Learning as Emergent Space

Online learning is a rapidly expanding field in education. Over 7.1 million postsecondary students are enrolled in at least one online course in the United States (over a third of all postsecondary students), according to a 2014 survey by the College Board and Babson Survey Research Group. Characteristics of many online courses in the

current moment include hybrid designs (a blended approach with both face-to-face and online instruction); interactive platforms that allow for social discussions and collaborations; and adaptive tools that create customized learning. There are echoes and similarities in these online courses from earlier iterations of distance learning (examples of initial distance learning include video conferencing, educational television, and correspondence courses); however, the social and interactive elements of current online courses have created a different environment for students and instructors. The term “online course”¹ is defined here as an educational course of study where more than 80% of course activities occur in online/web spaces (Babson Group, 2014).

The dimensions of online courses cited as beneficial include: the ability to reach different audiences such as nontraditional students, working professionals, and international students; the variability and flexibility of online learning tools; and the potential reduction of costs, particularly salient due to the increasing tuition costs of higher education—the cost of an undergraduate degree increased by 1,120 percent between 1978 and 2012 (Jamrisko & Kolet, 2012). Online educational spaces have many affordances for collapsing distances and creating networks, engendering optimism that it has the potential to create entirely new learning spaces. “Traditional boundaries (geographic, temporal, and pedagogic) have been crossed in ways hitherto unimaginable, and the result is unprecedented new forms of intellectual and social interaction” (Harasim, 1996, p. 2013).

¹I use the term “online” throughout this study to refer to course content (in particular, course videos) that are hosted on course websites, accessed through password-protected, institutional log-ins. However, I believe the dichotomy between “online” and “offline” is a false one, as the two spheres blend into each other. (See the works of Turkle, 2009; 2011, or de Zengotita, 2006, which explore the relationships between online/offline.)

This optimism of online learning—opening access and increasing equity to students; the networking, communication, and adaptive affordances of the online space previously unavailable in the traditional classroom; the more data-driven pedagogy, the more cost-effective credential—is often countered with critiques of online learning. Some of these counter-arguments include that online courses lack deep engagement and become automated factory models (Feenberg, 2008). In his 1998 essay, “Digital Diploma Mills: The Automation of Higher Education,” David Noble argues that emerging online programs of study are impersonal and of low quality, and will contribute to growing inequities in education. Noble cites a 1959 study of diploma mills, prepared for the American Council on Education, which described the typical diploma mill with the following traits: “no classrooms,” “faculties are often untrained or nonexistent,” and “the officers are unethical self-seekers whose qualifications are no better than their offerings.” Noble argues that these qualifiers are “apt descriptions of the digital diploma mills now in this making.”

The current research on online learning suggests mixed results (Jaggars, 2014; Mentzer, Cryan, & Teclehaimanot, 2007; United States Department of Education, 2010; Wang, 2008; Xu & Jaggars, 2011), measured through assessments such as grades, standardized test scores, and student satisfaction surveys. While there are emerging “best practices” for online courses, such as creating instructor presence, much remains inconclusive. Fundamental questions about online learning are in the early stages of exploration, such as how students learn from online courses, and what impacts their motivation; what helps students retain knowledge; what is best taught online vs. face to face; how do the affordances and constraints of online tools influence learning; etc. Some

scholars have argued for a rethinking of educational variables in the online space, particularly related to MOOCs (massive open online courses), such as enrollment, participation, curriculum, and achievement (DeBoer et al., 2014).

Despite the mixed results of online education, it is clear that it is a trend that is not going away. Considering the changes emerging since the beginning of the 21st century, where entire industries and social behaviors have shifted online (publishing, music, banking, shopping, and so forth), it stands to reason that education will also increasingly shift into online and digital spaces, at least in certain dimensions. This dissertation aims to contribute to the larger questions and context around online education.

Instructional Videos

This study focuses on student experiences with videos (and not on instructional video artifacts), yet it is important to give context and background of instructional media in this project. Video has been a tool supporting education for many years (Sheppard, 2009). In World War II, filmstrips were studied as a resource for training soldiers (Hovland, Lumsdaine, & Sheffield, 1949). Instructional television developed in the 1950s and 1960s, and Public Broadcasting Service (PBS) began in 1970, which created a wide range of educational television content such as Sesame Street. Video is a medium that has the ability to involve both auditory and visual symbol systems, creating a multisensory environment. There are many educational possibilities offered via video, such as simulations, dynamic modeling, conceptual visualizations, narrative content, and other formats (Baggett, 1984).

Contrasted with early film production, video is now much less complicated and less expensive to produce. Current mobile smartphones and computers are equipped with video recording tools, and videos can easily be uploaded and shared with others over online platforms. According to 2015 statistics of YouTube (a video sharing website), an estimated 300 hours of video are uploaded to YouTube every minute. This avalanche of content creation varies widely in subject, purpose, production values, intended audiences, and other characteristics. The trend of inexpensive and accessible tools for video production—as well as inexpensive or free methods of uploading, displaying, and distributing—suggests that video creation will continue to increase, and that videos will have a growing presence in online spaces and sites.

When used in educational settings, video is often a method to convey content. The idea of the “flipped classroom” is a model where instructional material is delivered via video, online, during non-academic time, and subsequently class time can be used for homework, questions, discussions, and other activities separate from lecture delivery (Ronchetti, 2010). Khan Academy, started in 2006 by Salman Khan, is a YouTube channel featuring free online instructional videos on math and science topics that is closely associated with the “flipped classroom,” or “just-in-time learning” (the idea that an affordance of technology is that it offers access to instructional content right in the moment one “needs” it).

Often video has a prominent role in content delivery in online courses. (A cursory investigation of MOOCS—massive open online courses—hosted by the platform Coursera demonstrate that most courses have weekly video lectures). Because students are not present in a physical classroom, videos are often utilized to convey information

that would often be delivered during classroom time, such as instructional lectures. However, the online environment is a different space than the classroom environment, and many assumptions behind teaching, learning, and instructional content invite re-examination in the online educational sphere.

Instructional media has been primarily investigated from a cognitive studies standpoint, assessing learning on an individual level with pre-test and post-test study designs (Atkinson, Mayer, & Morrell, 2008; Mayer, 2001, 2008; Moreno & Mayer, 2004; Sweller, 2004). Much of this research implies that instructional videos are more impactful when cognitive load is reduced on the part of the end user—such as “the multimedia principles” (Mayer, 2008), which are a series of design principles based on the idea of minimizing working memory to decrease cognitive load. For instance, one of the principles is the “modality principle,” which states that if animation is in an instructional video, it is better to use spoken text rather than written text, so the user is not concentrating on both animation and words on the screen. Instructional media has also frequently been evaluated from a student satisfaction standpoint, using student satisfaction surveys with Likert scales (Bennett & Glover, 2008; Choi & Johnson, 2005; Maag, 2004). This research (such as Mayer’s principles of multimedia) have influenced my professional work as a media producer, yet for this dissertation study, I aimed to pursue a qualitative project that considers students’ rich, lived experiences with instructional videos.

The aims of this dissertation are not to engender findings that are standardized and generalizable; rather, they are to describe the variability of student experiences of watching instructional videos in online courses, and describe their sense-making of these

resources. The intentionality of this research is such that recognizing students' diverse interactions with online instructional videos will have implications for the design of online learning spaces.

Problem Statement

Not enough is known about how students experience online courses, and how students are experiencing online instructional environments. A qualitative exploration allows for a further investigation of student experiences, and how they are engaging, perceiving, and interacting with online artifacts; and how these online videos (or semiotic texts) are socially situated and taken up in their lives. To further explore how students are experiencing online instructional environments, additional questions considered include: how are students (in the specific context of this dissertation study, graduate students in online master's degree programs) making sense of these artifacts? Where and when are they watching their course videos? How do they reflect on their learning experiences with these videos, and self-report how they have applied their learning? What modes and design resources within these instructional videos do they discuss, and focus their attention on? In short, what are students *actually doing* in online courses, with a particular focus on their interactions with instructional videos?

The development and deployment of online programs and courses has greatly increased since the early 2000s, and likely will continue to grow (Babson Survey Group, 2014). This expansion of education in the online space applies to all sorts of arenas: corporate training, higher education, K-12 education, informal learning, MOOCs (massive open online courses), and other realms. This widespread growth brings with it

an increased urgency to better understand online learning environments; the student experiences within these online learning environments; and the impact and implications of various design decisions on the student learning experience. As one cannot “xerox the classroom onto the Internet,” online environments invite us to reconsider assumptions commonly held about the classroom, such as: is the best format to deliver content via instructor lectures?

In addition, a focused examination of student experiences in these online spaces is applicable to diverse participants in the online education field, such as online instructors, program directors, administrators, and others involved in the education field. This inquiry carries particular relevance for educational content creators, such as instructional designers and educational video producers because it connects the design of these environments to the student learning experiences. This dearth of research related to student experiences in online environments is, in part, due to the relative recency of online education. The consequences of this lack of research is manifest, especially when considering the scale and scope of online education—an estimated \$107 billion industry (Global Industry Analysts, 2015). The field of educational technology has been considered a “gold rush” in an education market “ripe for disruption” (Fang, 2014). This is an industry where new products, websites, and mobile applications frequently surface, especially since 2008, and billions of dollars in venture capital have been invested (CB Insights, 2014) as well as billions of dollars of public funds (Nagal, 2014). Essentially, the size and scope of online education has increased at an extremely fast rate, and research and reflection into educational technology and online education has not kept pace. More specifically, there is a particular imperative related to the lack of research

around online instructional videos because often video is positioned as the method of “translating” educational content into an online learning space. (For example, creating videos of instructor classroom lectures, and requiring students to watch these videos as their primary method of engaging with course content.) A better understanding of the ways in which students experience instructional online videos has implications for instructional design, which therefore has implications related to resource allocation.

Research Questions

Attempting to describe the lived experiences of students enrolled in online courses, with a particular focus on their experiences with online instructional videos, this research project was guided by the following research questions:

- (1) How do students make sense of their learning experiences from videos, in an online environment?
 - (a) How do students describe their experiences with course videos, in an online graduate course context?
- (2) How do students engage with various modes and design elements of instructional videos in their process of meaning-making?

These questions served as guides throughout the data collection and data analysis stages, and serve as the overarching inquiries organizing the findings and implications.

Significance of Dissertation

The realm of online education is rapidly expanding for many contexts—K-12 education, higher education, and graduate education; corporate and workplace trainings; informal and just-in-time learning. The market research firm Global Industry Analysts estimates the online learning industry in 2015 is a \$107 billion industry in the United States, and predicts this number to grow significantly over the next decade. This tectonic shift in education creates an increasing need for more research and understanding as to the ways in which these learning spaces are situated and experienced by learners. My hope for this study is to position student experiences at the forefront, and to gain greater comprehension and insight into the ways in which they are experiencing online education.

The significance, in a broad sense, is related to the wider field of online education; more specifically, though, the focus of this dissertation is on the ways in which students are experiencing a specific type of educational content within online education— instructional videos. Educational media production is also a significant industry, and frequently occupies a central role within online educational spaces. In online education, video is often used as the primary method of delivering education content such as instructor lectures (McConachie & Schmidt, 2015). Yet, despite the relatively high costs of video production, there is an absence of research as to the value of video in online courses; the research that does exist often focuses on engagement metrics such as views and play-through rates (Guo, Kim, & Rubin, 2014; McConachie & Schmidt, 2015). This raises several questions about the assumptions behind producing instructional videos for online courses: what are students' perspectives of these videos? How are they engaging

and interacting with videos? How do these videos relate to their learning experiences and goals? This study has implications, particularly for designers of online learning spaces and producers of instructional videos, by considering that the ways in which students interact, engage with, watch, and make meaning from educational online content.

Organization of Dissertation

This introductory chapter aims to introduce the landscape of online learning, offering context for its growing role in many educational spheres. It gives a brief background of how video has been used for instructional purposes. In the problem statement, it aims to situate this dissertation study in a space where more research is needed related to how students are experiencing online courses; this occupies a research space that has implications for people involved in the growing sphere of online education, particularly designers of educational content.

Building upon Chapter I, Chapter II is a literature review of a few different areas. First, I begin by positing the conceptual framework of multimodal user experience, which offers a language and lens with which to answer my research questions. I follow with a review of user experience (or UX), wherein ideas of experience and sense-making are considered, as well as the ways in which the “user” has been defined. I explain the framework of sense-making developed by McCarthy and Wright (2004), which guided the data analysis and organization of the data chapters of this study. Then, I follow with a review of the literature around multimodality, and argue that multimodal user experience encompasses a broad frame to discuss meaning-making of digital spaces and artifacts.

Chapter III begins with a description and justification of the qualitative research methods and design of this dissertation study. I begin the chapter by explaining the research setting, offering background and context to the institution in which this study took place. I explain my role as a researcher at the site, and the implications related to my full-time employment at this location. This is followed by a description of the research methods employed, which drew upon semi-structured interviews and observational talk-through interviews. Participant recruitment and selection is explained. I provide details related to the iterative and ongoing data analysis stages that occurred during this research. I conclude the chapter by discussing the steps taken to ensure validity, and the limitations of the study.

Chapter IV discusses the ways in which student motivations and expectations shape how they approach watching online course videos. I first begin by exploring the motivations for enrollment that students expressed in interviews, which were primarily grounded in professional reasons. I then discuss the ways in which students discussed how they approached their viewing of instructional videos, finding that their self-reported viewing behaviors differed between instructional online course and non-course videos. I then discuss the times and spaces in which students self-reported their viewing habits, which were often framed in relation to their work; I follow this by explaining how students discussed applying their learning in workplace settings. I conclude the chapter by arguing that student motivations and expectations shape how they approach watching online course videos, and the times and contexts in which students view instructional videos shifts.

The themes explored in Chapter V focus on students' sense-making and interpretations of online instructional videos, with a focus on the theme of trustworthiness and the ways in which students assigned trustworthiness to their course videos. I frame this trustworthiness through the social contexts and associations of the presenter, as well as the multimodal elements found within the videos. I also discuss the ways in which participants conversed (and assigned meanings) towards multimodal design elements such as institutional branding and the production values of the videos.

Chapter VI focuses on the ways in which student experiences with online instructional videos blur with other course experiences. Drawing upon excerpts from interview data, I explain the ways in which student experiences with videos blurs with other course elements, such as live webinar sessions. I then continue to explore the ways in which the contours of videos were blurred, as well as how the interactions with instructional videos blurred with other web design elements. I conclude the chapter by building an argument for the overarching finding of this dissertation study, which is that recipients of multimodal artifacts have a lot of agency, and their meaning-making of online videos may not align with the designer's intentions.

In the Conclusion section, Chapter VII, I return to the problem statement outlined in the Introduction, and summarize the findings from this dissertation study. I explore the ways this dissertation addressed the questions I raised, and aim to recontextualize this research in the field of online education. I then explain the implications for this dissertation research—implications for theory, and implications for designers. I then discuss areas for future research, and conclude with final thoughts.

Chapter II

LITERATURE REVIEW

In this review of the literature, I cover areas that offer theoretical and conceptual backgrounds to the research questions and setting of this study. To guide this review, I begin with the conceptual framework of Multimodal User Experience to offer language and a lens with which to investigate the research questions for this study:

- (1) How do students make sense of their learning experiences from videos, in an online environment?
 - (a) How do students describe their experiences with course videos, in an online graduate course context?
- (2) How do students engage with design elements of instructional videos in their process of meaning-making?

I outline the conceptual framework, and then follow with a review of User Experience (or UX), wherein ideas of experience and sense-making are considered, as well as how the field has investigated the ways in which “users” experience technology.

Subsequently, an exploration of the field of Multimodality is outlined, and I situate this study in a space where ideas from user experience and multimodality overlap.

Conceptual Framework: Multimodal User Experience

The conceptual framework that guides this study is Multimodal User Experience; that is, a lens that considers the overlap between the disciplines of multimodality and user experience (UX). User Experience, broadly speaking, is a field that investigates how people interact with technology; more specifically, how a single user navigates a technological system, such as a website. While the “gold standard” of UX (especially within the technology industry) is usability, and the ease with which users can complete a task (Hornbaek, 2010), more recent developments have accounted for affective qualities such as emotions, aesthetics, and perceptions (McCarthy & Wright, 2004; Roto et al., 2011). Multimodality, which has its lineage in semiotics, considers the ways in which multiple modal resources (such as image, gesture, sound, and so forth) are utilized in communication and meaning-making (Jewitt, 2006; Kress, 2000, 2009). Multimodality has particular relevance in relation to digital technologies, and the ways in which multiple modes are composed for communicative purposes; it also has implications for education spaces, as it considers the potential for meaning-making and learning via multiple modal resources (i.e., image, music, gestures).

In simplistic terms, these fields offer a language and a framework to answer the core research question, *how do students make sense of their learning experiences from videos in an online environment?* User experience allows consideration and methodologies for the ways in which students are interacting with technology; for

example, their experiences with online course websites and online instructional videos. Multimodality offers a way to frame and discuss how multiple modes relate to student's meaning-making; for example, how non-verbal elements of videos (such as branding, or gestures, or music) relate to students' learning experiences.

The conceptual framework of multimodal play (Vasudevan, 2006; Vasudevan, DeJaynes, & Schmier, 2010) combines the disciplines of play and multimodality, and considers the generative possibilities of play (such as humor and experimentation) with the generative possibilities of multimodality (such as digital compositions in blogs and other websites). Multimodal play is both a conceptual framework for examining digital literacies and practices; it is also a pedagogical stance, particularly salient in relation to youth and adolescent educational spaces. This framework served as the inspiration for my work, in the ways in which it brought together multimodality with other ideas, particularly in the context of an emergent educational space.

The conceptual framework of multimodal user experience aims to offer an analytical "point of entry" when thinking about how people experience and make meaning from online spaces. By overlapping the fields of user experience and multimodality, this lens offers a way to investigate how students are experiencing online course sites and online instructional videos. Multimodal user experience is a particularly useful framework that calls attention to *both* the "users" (or students) as well as the "designers" (or the digital content creators), when seeking to understand the meaning-making of digital spaces and artifacts. Thus, I use this framework to analyze the research questions around learning, experiences, and sense-making from online videos.

The research and practitioner fields related to educational technology and online learning are relatively new, and have accelerated rapidly since the early 2000s. These emerging spaces invite flexible and interdisciplinary approaches with research; it is also a rich space for practitioner research, or for practitioner or industry approaches to research. It is within this practice-based and emerging-field locale that I situate this dissertation study, and the multimodal user experience framework.

User Experience (UX)

“User experience” (also referred to as UX), broadly speaking, is a discipline that considers how people interact with technology. UX is an established domain within the technology industry; there are several professions and job titles currently related to UX and UI (user interface), such as UX/UI designers and UX researchers. There are also many undergraduate, graduate, and certificate programs in the UX field. UX is broadly considered to have emerged from the field of Human-Computer Interaction (or HCI), yet there is little consensus as to what “user experience” *actually* means. For instance, in a survey of 275 researchers and practitioners involved with UX research and industry, Law et al. (2009) found no consensus as to a common definition of user experience (although the majority agreed UX is dynamic, subjective, and context-dependent that can be predicted and therefore, engineered through design). Below is an overview of the changing field of UX as well as how it has been defined; then, ideas around “user” and “experience” are explored, as well as “sense-making.” I offer how UX is defined and taken up in this dissertation study.

Evolving Definitions of UX

User experience has roots in the field of Human-Computer Interaction (or HCI), which came about from the disciplines of psychology and computer science, which have orientations towards laboratory settings. The origins of UX are also based on task completion, removed from context and embeddedness; and task-oriented usability still remains the “gold standard” for UX (Hornbaek, 2010).

Early approaches of UX were developed to evaluate and design for the ease of use and learning for novice users. Gould and Lewis (1985) proposed three design principles of designing for usability: (1) early focus on users and tasks, (2) empirical measurement with actual users and a prototype system, and (3) iterative design and development. Shackel (1990) developed the “characteristics for usability” which include: effective, flexible, learnable, and satisfying. In Don Norman’s (1988) book, *The Design of Everyday Things*, Norman defines the term “user-centered design” to describe how design can fulfill requirements or needs of the user, in relation to human/object and human/computer interaction, recommending design features such as simplifying the structure for tasks and making things visible.

Framing human experiences with technology as task-oriented and utilitarian neglects other dimensions of how people interact with and experience tools. For example, in a 2011 survey by Avira, an IT security company, 39% of participants reported cursing at their computers and 12% attempted or carried out physical assaults against the machines they interact with. This survey suggests that technology can elicit the same emotions people have from interactions with other people (Desmet & Hekkert, 2007). More recent approaches and definitions of UX have expanded, including “non-utilitarian

aspects of interactions, shifting the focus to user affect, sensation, and the meaning as well as value of such interactions in everyday life” (Law et al., 2009, p. 719). As McCarthy and Wright (2004) explain, they are “heartened by the fact the consumer metaphor underlying notions of user experience treats activity as emotionally laden” (p. 11). In other words, one of the developments in user experience in the technology industry is that many affective qualities experienced by users are now often considered, such as—aesthetics, emotions, if something is fun, if something is frustrating—and while the focus in UX still remains on usability, task-oriented functionality, and optimizing “user flow” through a product (Kim, 2014), it is a broader framework than *only* task completion. The conception of UX has shifted to “encompass all aspects of interacting with a system” (Hassenzahl, 2003, p. 41), and considers the contextual, aesthetic, and emotional outcomes from using technology (Hassenzahl & Tractinsky, 2006). In *Thoughts on Interaction Design*, Jon Kolko (2011) states that user experience experts should “stop being advocates for simply usable designs and begin to herald the creation of more poetic, culturally rich design solutions” (p. 17).

The User

Kuutti (2001) traces the trajectory of the history of the “user” in HCI, and argues that the user started in the 1970s as a cog in a rational machine, became a source of error in the 1980s, a social actor in the 1990s, and is now positioned as a consumer. More recent developments have positioned “users” more broadly than task-oriented “subjects,” taking into account individual interests, practices, histories, and objectives (Bødker, 2006; Connolly et al., 2008). “The ‘user’ is reconstructed as a creator of actions who precedes an identity rather than a user with an identity that prescribes actions” (Wakkary

& Maestri, 2008, p. 490). While this view may have current prevalence, the importance of holistically understanding the user may have first been suggested by Hansen (1971), whose first principle of user engineering was “know thy user,” and he encouraged designers to understand the user’s “education, experience, interests, how much time he has, his manual dexterity, the special requirements of his problem, his reaction to the behavior of the system, his patience” (p. 527). Despite these early intonations of considering broader contexts of the user, in the 1970s and 1980s the predominant approach to understanding relationships between people and technology assumed a single user sitting in front of a computer screen and a keyboard performing proscribed tasks (McCarthy & Wright, 2004).

Anthropologist scholars shifted the focus to considering “the user” as a social actor. This sociocultural work reframed technology as social and practical, situated in everyday activity (Lave, 1988, 1996; Lave & Wenger, 1991). These scholars questioned the validity of separating mental processes from context and historical traditions, thought from situated practice, or action from setting. Lave (1988, 1996) offered accounts of socially situated practice, maintaining that one’s practice and the social context in which it occurs cannot be separated. Subsequent scholars have taken up this work by positioning technology in community contexts (Brown & Duguid, 2000; Rheingold, 2000). In *Talking about Machines: An ethnography of a modern job*, Julian Orr (1996) conducted fieldwork among Xerox technicians and documented the ways in which they constructed narratives around their repair work, such as diagnostics. Through the technicians’ “war stories,” they made sense of their experiences as well as created a socially distributed

knowledge network. In Orr's work, technology is embedded within social and cultural practices.

The ethnographically-informed, or "user as social actor" perspective has been overshadowed by the positioning of user as consumer in more recent times (Kuutti, 2001), or user as isolated individual. The idea of "user as isolated individual" has been critiqued; Battarbee and Koskinen (2005) dispute the individual focus of the UX field, and argue for "co-experience," which relates to how the experiences an individual has and how their interpretations are influenced by others. Norman (2002) has argued that by referring to people as "users," designers and engineers depersonalize them, and that the implicit meaning of the term *user* is of someone who can only make use of what is given to them. Norman also makes the case that customization, personalization, and personification make all users "designers."

In the context of this research study, there are design and pedagogical implications of incorporating user experience frameworks in an educational setting. Specifically, by using a UX framework, this positions "students" as "users," which may carry connotations that learning is a transactional experience, or that students are positioned as consumers. The parallel of "user experience" to "consumer experience" is not overlooked, as UX/UI is closely associated with industry, particularly the technology industry, and improving "site optimization" for products (Kim, 2014). For instance, the research and consulting company Nielsen Norman Group or NN/g (started by user experience researcher Don Norman) lists the following as their mission statement: "NN/g will help you create better experiences for real people and improve the bottom line for your business." Within this dissertation study, I do not aim to position students as

consumers, by considering them as users. Rather, I consider students as users interacting with technology embedded within broader sociocultural contexts. They are users with personal experiences with technology in “real world” settings.

The consumer metaphor of “users” is acknowledged, as is the mechanistic and information-processing HCI relationship between people and computers, yet there are many productive ideas and approaches from the UX field around how people make sense of technology; in particular, the sensory, emotional, and affective responses students may have in their sense-making of online videos in online courses. Below, I explore more thoroughly how *experience* and *meaning-making* are positioned in this research study, anchored by the research question: *how do students make sense of their learning experiences from videos, in an online environment?*

Definitions of Experience

The term “experience” is both rich and elusive. There are also many inherent problems and difficulties in describing experience, as we are always involved in experience (as the reader is in the moment of reading this text). There is no way to “step back” from experience and occupy an omniscient view. Yet despite the limitations of defining and describing experience, it is fundamental to our existence. As McCarthy and Wright (2004) offer: “we humans want to understand and interpret our experience...we live in a world that is not given to us whole cloth and so we have to make something of it” (p. 122).

In *Art as Experience*, Dewey (1934) argued against the way museums positioned art as separate from everyday experience, and instead offered that art should be part of ordinary and lived experience. Dewey positioned human action as situated and creative,

and made the case that every person brings his or her own histories, interests, and beliefs to a situation, and the self is engaged in a conversation with that experience. To quote Dewey, from 1938: “The principle of continuity of experience means that every experience takes up something from those which have gone before and modifies in some way the quality of those which come after” (p. 35). In other words, experience is a process of sense-making that builds upon one’s histories and previous experiences; this then informs future experiences. Experience is also more holistic than simply actions or behaviors; it involves a person’s full relationship (sensory, emotional, and intellectual) with his or her physical and social environment.

In *Technology as Experience*, McCarthy and Wright (2004) build upon Dewey’s ideas of art and experience, as they similarly position technology and experience; they argue that technology is embedded in everyday experience (as Dewey positioned art) in ways that are both aesthetic and functional. McCarthy and Wright explain: “When we conceptualize technologies as experience, we are attempting to review technology by making visible aspects of experience of technology that would otherwise remain invisible” (p. 20). They build upon the importance of emotions and sensory elements in human experience, and highlight components such as the spatial and temporal; they also make the case that any analysis of experience sense-making must make explicit social and interpersonal contexts. In this dissertation study, experiences with technology (and specifically, experiences with online instructional videos) are considered as embedded within everyday practices, and that these experiences are situated in social and cultural contexts.

Meaning-making

To define and give contours to “meaning-making,” that is, the ways in which students are describing and experiencing instructional videos in their online courses, I draw upon the six processes of sense-making that McCarthy and Wright (2004) outline. While there are limitations to addressing individual sense-making processes apart from the whole, these are boundaries to help describe and analyze the ways in which people interact with technology, and in this study, the ways in which they experience instructional videos in their online courses. The personal meanings of an experience depend on one’s history and motivations; one of the characteristics of being human is the drive to interpret and understand our experiences (Bruner, 1986).

User Experience (UX) considers the ways in which people interact with technology from a functional perspective; it also takes into consideration the sensual, emotional, and spatial-temporal aspects of experience. As McCarthy and Wright (2004) argue, analysis must also attend to the past and the future; “the before and after that are folded into the present experience and that are themselves changed by the present experience” (p. 114).

The organization of the data chapters of this study are loosely based on the processes of sense-making making (McCarthy & Wright, 2004), which are organized by the temporal guidelines of experience. These data chapters include Anticipating (Professional Selves), Interpreting (Trustworthiness), and Recounting (Blurred Experiences). These processes of sense-making take into consideration the situatedness in which people use technology; the sensory engagement with experiences that transcend language; and the continuous engagements with experiences which help understand how the past and future influence the present. This approach aligns with my research

questions, as it offers analytical contours to my research questions related to how students are making meaning from their experiences with online videos, and how they are making sense of multimodal design elements. Below I outline (and offer brief examples) of the six processes of sense-making.

Anticipating: The expectations, possibilities, and prior experiences with which one approaches an experience (or in this instance, an online instructional video). For example, a student preparing a notebook and paper in order to take notes before watching a course video. This is important to consider in terms of user experience in order to help frame and understand the ways in which a person is situating and framing their experience (before it even occurs). One's past skills, motivations, understandings, and so forth influence their meaning-making.

Connecting: Connecting refers to the immediate sense of a situation encountered (which may be a sense of tension or relief at something happening). For instance, the moment a student clicks on the "play" button and the emotion that it engenders if it plays (or does not play, an unanticipated outcome). This might take into account affective or emotional aspects to the ways in which users encounter technology, such as frustration, or enjoyment. The visceral ways in which we react to experiences is something that UX considers as important to understanding sense-making of technology.

Interpreting: Interpreting is the process of understanding what is happening. For example, watching a video and decoding the narrative and people involved, such as recognizing the faculty member in the video, listening to the lecture, and viewing the graphics that accompany the lecture. This is a key facet to understanding the ways in which participants are verbalizing and meaning-making their experiences (such as

through real-time, talk-through interviews, discussed in Chapter III). This is especially relevant to understanding the ways in which participants are sense-making multimodal resources, such as graphics or body language.

Reflecting: Reflecting (which may be occurring simultaneously as interpreting) is the act of judging an experience as it unfolds; from an emotional perspective, how does the event relate to anticipated outcomes, and what types of sentiments does it elicit, such as anxiety, boredom, or fun (and reflecting upon why). For example, reflecting on the boredom one feels while watching a video, and considering that the boredom might be because some of the lecture material was already covered in a previous video.

Appropriating: The ways in which an experience relates to one's sense of self, personal history, and anticipated futures. For instance, watching a video that explains how to conduct a medical procedure, which relates to the viewer's sense of self because he or she anticipates becoming a medical professional in the future and thus connects the experience with an anticipated future outcome.

Recounting: Recounting involves telling the experience to others or ourselves; it goes beyond the immediate experience to consider it in the context of other experiences. For example, discussing with a researcher the reflections on an online course video from the previous semester that a student found uninteresting. This is important to understanding participants' experiences with online videos; this is from a future vantage point, in which their meaning-making offers a different perspective than their sense-making in the moment of occurrence. Their experiences with online videos might also connect with other future experiences, such as other instructional content or professional projects.

These six processes of sense-making helped inform and guide the data analysis processes in this study, such as how multimodal elements related to participants' meaning-making and how participants were making sense of online instructional videos (i.e. how they approached the viewing, how they interpreted the videos real-time, and the ways in which they reflected on the videos). This analytical framework organizes experiences in a temporal way, and emerges from UX ideas that meaning is made across social and temporal contexts; it is influenced by affective qualities, such as emotions, attitudes, identities, and motivations; and that aesthetics, design, and non-verbal elements also contribute towards the sense-making process.

Designing for Experience

The idea of “user-experience” design is a way to foreground people’s experiences with technology (in particular online spaces) for designers. Yet, using the phrase to indicate that experience *can be* designed is another, and suggests a return to a technologically determinist position on what experience is, and neglects previous scholarship focusing on context and agency (such as the work done by Lave, Wenger, and Orr). There are implications that business and the technology industry reduce this rich idea to product-maximizing design.

For example, consider some of the “design principles” outlined by the technology company Apple on their developer website for mobile applications. These design principles include guidelines such as: “take advantage of the full screen”; “use plenty of negative space”; “it’s best to give users one path to each screen”; “strive for realism and credibility in custom animation”; “use a single font throughout your app”; and so forth.

The underlying assumptions are that experiences with technology are transactional and task-oriented; and that at core, users are passive in their construction of experiences.

The purpose of this study is not to focus on critiquing industry design principles, especially considering that my practitioner role of creating, producing, and embedding online videos aligns with many of these principles. (Usability and functionality are very important for online course websites and videos.) Rather, the goal is to consider the rich, lived experiences of users (in this instance, students and not consumers) with online instructional videos; this study also aims to highlight the *agency* of people with technology. I also aim to foreground the sociocultural contexts in which people interact with technology, an emphasis of User Experience that more recently has been neglected.

Below, I offer a review of the field of multimodality, which also offers rich conceptual ideas for considering the ways people make meaning from technology and online spaces.

Multimodality

“All communication is movement.”

(Gunther Kress, 2009, p. 169)

The questions I aim to investigate are related to how students are making sense of their learning in an online environment, particularly how they experience instructional online videos, as well as how design elements relate to these experiences. To unpack the online environment—and multisensory video artifacts—multimodality is a useful framework for investigating these semiotic resources and ecosystems. Multimodality is a

lens that investigates multiple communicative modes, for both production and reception; it has particular resonance in the education space, since it allows for close examination of multiple modes (such as imagery, audio, etc.) and how participants make meaning from these resources.

Multimodality does not have one fixed definition, or approach, of what multimodality is; it is a field of theory, research, and practice that considers how multiple modes work together to create meaning. It is an approach arguing that communication involves drawing upon multiple modal resources (gesture, tone, image, sound, etc.) in social contexts. As Jewitt (2008) states, “multimodality attends to meaning as it is made through the situated configurations across image, gesture, gaze, body posture, sound, writing, music, speech” (p. 246). Meanings are made through multiple modal resources (such as gesture and image), rather than solely through language.

Social Semiotic Approach

One of the most influential theories is a social semiotic approach to multimodality, as discussed by Kress, Jewitt, and colleagues (Jewitt, 2006; Kress, 2000, 2004, 2009; Jewitt & Kress, 2003). This approach takes into consideration that the contents of communication are social in origin, and that communication is socially shaped and embedded within social environments. This framework is particularly relevant when examining literacy “events” or multimodal artifacts in social spaces, such as a classroom, websites, science textbooks, etc. This lens assumes that these social contexts are not static; they are shifting and shaped by individuals and groups.

The social semiotic approach to multimodality incorporates ideas from the field of semiotics, which is an approach that looks at signs, sign systems, and symbols, as well as

the making of signs (semiosis). Both multimodality and semiotics are related to the field of linguistics, but foreground non-linguistic forms of meaning. In the social semiotic strand of multimodality, Kress (2009) builds upon the work of linguist Halliday (1979, 1993) to consider the ways in which meaning-making occurs. Halliday identified field, tenor, and mode as three different perspectives or metafunctions to utilize when analyzing communicative acts, going beyond language alone when considering communication. This functional grammar approach takes into consideration the social contexts in which language occurs (Lemke, 1990, 2005), which previous grammatical frameworks for language had been critiqued for overlooking.

Echoing Halliday's metafunctions of field, tenor, and mode, Kress (2003) detected three main aspects to consider in multimodal analysis: *discourse*, *genre*, and *mode*. Discourse refers to how social institutions are shaping the text or topic; "what is at issue," and "what is being talking about" (p. 47). Genre is a way to examine the social relations between participants, or "who is involved, with what purposes, what roles, what power, and in what environments" (p. 47). Finally, to examine the mode is to look at what resources are used for communication; a mode is "a socially shaped and culturally given semiotic resource for making meaning" (Kress, 2009, p. 79). In a multimodal approach, it is modes, rather than "languages" that are compared. For example, Hull and Nelson (2005) consider the affordances of multiple modes employed in the digital story "Lyfe-N-Rhyme"—including choices of fonts, colors, styles, images, editing transitions, and so forth—and argue that the multimodal composition (and the modal choices involved in its orchestration) offers a different meaning than what each mode offers separately.

A multimodal approach is particularly salient in digital media environments, where there are multiple modes available for communication (i.e., font, color, image, video, etc). Kress and Selander (2012) make the argument that all representations in a digital environment are multimodal, and in this context the multimodal resources, affordances of the modes, and composition choices are tantamount when meaning-making. “In a social semiotic approach to multimodality, *choice* is the basis of and expression of meaning” ([italics from original text], p. 267).

The social semiotic approach often focuses on aspects such as the principles underlying the design of multimodal ensembles and the pedagogic effects of multimodal designs (Bezemer & Kress, 2008; Kress, 2000, 2004, 2009; Van Leeuwen, 2005). Below is an excerpt from the article “Writing in Multimodal Texts: A Social Semiotic Account of Designs for Learning” by Bezemer and Kress (2008), articulating the tenor of approach in multimodal social semiotics and functional grammar:

We aim to show what changes in principles of designs of texts there have been and how the designers of learning resources—visual artists, editors, writers—have used and now use writing, image, layout, and other semiotic resources to create *potentials for learning*. By potentials for learning we mean the ensemble of semiotic features of a text or of an environment—objects, texts, people—that provides the ground for learning and in that way may shape what learning is and how it may take place. (p. 168)

This emphasis on design and semiotic resources echoes the focus on design in user experience (UX) research—how writing, image, layout create “potentials for learning”; in other words, how multimodal resources shape the path through which users experience a system, or text, or other resource. This approach argues that the “ensemble” of modal resources shapes how learning may take place. Yet, similar to the critique that much of

the literature in UX is overly deterministic—that experience *can be* designed—much of the social semiotic approaches in multimodality emphasize design elements, inattentive to the agency of users or learners and their processes of semiosis (or meaning-making). This is not to say that design elements, or semiotic resources, *don't* influence the pathways and experiences of learners, or that modes don't have certain affordances. However, I locate this dissertation study in an area of research that looks carefully at the ways in which learners are interacting with modal resources (and not how grammar or design itself creates a “potential for learning”).

Semiosis

Multimodality foregrounds how meaning-making occurs in context, within social environments. Signs are social in origin and are used to communicate and make sense of learners' experiences; when signs are internalized, they transform learners' thinking (Vygotsky, 1978). By asking the research question, *How do students engage with various modes and design elements of instructional videos in their process of meaning-making?*, I am inquiring into what design elements are used in the process of semiosis; what signs or modal resources are internalized; and what resources are students taking up in their sense-making.

The considerations of semiosis have been taken up in educational contexts. For instance, transmediation (Siegel, 1984, 1995; Suhor, 1984), is the process of moving across sign systems or “translating” ideas from one mode to another mode. Siegel (2006) argues that transmediation is a “generative process that can produce new meanings” (p. 70). Siegel's work on transmediation emerged from ethnographic research about how children's composing moved from texts to drawings; in many instances, children would

use drawings to interpret and enhance their understandings of source texts. In later works (Jewitt, 2003; Kress, 2003), this practice is labeled as *transduction*, which also describes how ideas are transferred from one mode to another mode; in these instances, the authors focus on the design choices and semiotic affordances that arise from modal changes.

It is important to recognize that multimodality is not a new idea. The ability to design a blog post with modal choices of font, color, images, etc. is one example of sign-making or semiosis that is enabled by recent technologies, yet semiosis has always occurred when meaning-making. Siegel (1984, 2006), Dyson (1982, 1989, 1997), Harste, Woodward, and Burke (1984), and other scholars completed work around “early literacy” and “emergent literacy” events, beginning in the late 1970s. These researchers highlighted the semiotic resources children draw upon when learning literacy practices, and did not place language above all other sign systems. This perspective was significant because it emphasized the ways in which language and literacies are learned and enacted that go beyond alphabetic texts, and considered a broader perspective around meaning-making in educational settings.

For instance, Daiute (1989) explored how play relates to literacy, arguing that the activities children engage in during play—“contrasts of sounds, images, movements, desires, beliefs, and switching in and out of contexts” (p. 3)—occupy an important role in cognitive and linguistic development. When learning reading and writing, children play with sounds and meanings of language through tactics such as alliteration, rhyming, humorous-sounding words, foreign accents, dialect, sound effects, and singing (p. 7). Saville-Troike and Kleifgen (1986) examined elements of “negotiation in communication” among elementary English Language Learners, drawing from over 100

hours of video taped classroom sessions. These elementary ELL students often used nonverbal resources (gesture, sound effects, images) for communication, and these practices were integral with their English language acquisition.

This scholarship from the 1980s around youth play and literacy development connects more recently to multimodal play (Vasudevan, DeJaynes, & Schmier, 2010), an idea that foregrounds the ways in which youth compose multimodal texts—a process that is often messy, improvisational, and playful. Vasudevan et al. suggest that “through multimodal play—including textual explorations, reconfigured teaching and learning relationships, and the performance of new roles and identities with and through new media technologies and media texts—educators are better able to make pedagogical connections with adolescents’ evolving literacies” (p. 7). This work also broadens a perspective around learning and literacies; it considers the rich affordances of multimodal compositions, especially in ways that might be unconventional and playful among adolescent youth. It takes seriously the generative and educational possibilities of experimenting with multiple modes.

Multimodality may be considered as a simple idea: people receive and produce meaning using various modes. (Yet, it should also be questioned and framed in more complex ways, particularly given the contexts of multimodal compositions and interpretations). Kress (2009) describes a mode as “a socially shaped and culturally given semiotic resource for making meaning” (p. 79). This conceptualization of a mode opens up potential unexpected or unanticipated resources for communication, (which occurs in context, in a social environment). The choice of font, for instance, is a communicative mode; another example are the modes of color and shape that comprise a

red octagon. The red octagon signified in certain sociocultural contexts may be interpreted to mean a certain idea; however, this meaning may shift in other sociocultural contexts. Modes are appropriated and reappropriated, according to various contexts—such as assembling signs with previously mediated meanings and reassembling into a new set of meanings (Ranker, 2007; Rowsell & Pahl, 2007).

While multimodality may have simple ideas at its core, this is an idea that is still “new” in many ways, especially in educational settings that perceive literacy and composition as text-only processes. As Kress (2009) writes, institutions can benefit from the insight that “humans may have different orientations to modes and ensembles of modes” (p. 15). Harste et al. (1984) offer: “In short, our program of research forced us to abandon what in retrospect might be termed a ‘verbocentric’ view of literacy and to adopt a semiotic one, in which the orchestration of all signifying structures from all available communication systems in the event have a part” (p. 208).

Composition versus Interpretation

While multimodality may not be a “new” concept or area of study in many ways, it does offer powerful implications, especially in educational spaces, and especially in formalized educational spaces and school curricula. There are powerful affordances available in the acts of multimodal composing, such as digital storytelling (Hull & Nelson, 2005; Ranker, 2009). Much scholarship around multimodality has focused on the affordances of multimodal production—on the meaning-making affordances of multimodal text creation, through “orchestration” (Harste et al., 1984) or “braiding” (Mitchell, 2004). The focus has been attuned towards “the semiotic dimensions and strategies that partly accounted for the emergent meaning of ... composition” (Hull &

Nelson, 2005, p. 255). In a review of the literature, Holsanova (2014) argues there is a dearth in the multimodality literature around the reception or interpretation of artifacts, and that the focus on this field has primarily focused on the meaning-making possibilities of multimodal production. For example, several scholars have investigated the generative affordances of production through multimodal compositions in blogging (Lankshear & Knobel, 2006), digital storytelling (Hull & Katz, 2006), and media production (Ranker, 2007, 2008; Soep, 2006). This dissertation study—which focuses on the interpretation and meaning-making from multimodal artifacts—is an attempt to address this gap, and build upon the ongoing literature of the field of multimodality.

Summary

In this literature review, I have focused on two areas of study: user experience and multimodality. I give an overview of how user experience has been defined; evolving definitions and conceptualizations of user experience; who is the user; how is experience defined; and what are the processes of sense-making. I argue that this framework is especially rich because it considers the ways in which people interact with technology, and this research study focuses on how students are experiencing online courses and online videos within these courses. I further argue that the ways in which UX has been taken up (such as in the technology industry) has been overly deterministic, and neglects the agency of users' meaning-making with technology.

In the overview of multimodality, I have outlined the semiotic and linguistic lineages to the field, mostly focusing on the social semiotic approach of multimodality. I offer definitions of mode, and define meaning-making (or semiosis). I maintain that

multimodality is not a new concept, however, and draws upon earlier works around “early literacy” occurrences. I offer that the ways in which multimodality has primarily been taken up has been through a focus on producers (i.e., students creating digital media pieces), and explain how there is a gap in the multimodality literature related to the interpretations of multimodal artifacts. I position this dissertation as a way to build upon the field of multimodality by addressing this gap.

I believe there are many parallels and overlaps between multimodality and user experience, as both consider the ways in which design and design elements communicate meanings; and both concepts offer approaches to understand the ways in which people interact with and experience technology and online spaces. I also aim to situate this dissertation study in the space wherein by focusing on students’ meaning-making processes; and demonstrating their agency in their learning experiences (which may not align with designer’s intentions); that it offers a counterpoint to deterministic positions of design in both UX and multimodality.

Chapter III

METHODOLOGY

This chapter of the dissertation explains the qualitative methodologies of the research design. Qualitative methodologies take the approach of interpreting the meaning-making of participants, considering the researcher as a primary instrument in data collection (Bogdan & Biklen, 2007; Creswell, 2007). This study takes up a phenomenological research epistemology, because I am interested in the participants' perspectives and interpretations regarding their experiences with online videos. The paradigm of phenomenology asserts that human perceptions and reactions are valid sources of data (Schutz, 1967). Slavin (2007) writes, "A phenomenological study often begins with a situation that the researcher has some personal experience with and wishes to understand from others' perspectives" (p. 149). My personal experiences as a media producer, where I created online video content for master's degree programs, lead me to my research questions:

- (1) How do students make sense of their learning experiences from videos, in an online environment?

- (a) How do students describe their experiences with course videos, in an online graduate course context?
- (2) How do students engage with design elements of instructional videos in their process of meaning-making?

Qualitative methods can be useful towards understanding the social and cultural meanings participants make; the complexities of an issue; as well as offering support or clarification for developing theories (Creswell, 2007, p. 40). The aim of this type of research is to generate working hypotheses that are produced from the reading of data. Qualitative research is guided by an underlying philosophical stance that in order to understand a complex phenomenon, the multiple “realities” experienced by the participants themselves must be considered (Maxwell, 2012). “Qualitative research is committed to participants using their own words to make sense of their lives” (Luttrell, 2010, p. 1). This qualitative research study aims to understand the lived experiences of the participants—specifically, graduate students enrolled in online master’s degree programs—and the ways in which they were engaging with online instructional videos.

I aimed to answer my research questions through two primary methods: (1) semi-structured interviews, and (2) user experience “talk-throughs.” This methods chapter will begin by describing the research setting, and my role as a researcher. I then explain the methods used in this study, framing it as a qualitative exploration. I then explicate the interview methods utilized in this study, discussing the semi-structured interview approach, as well as the participant recruitment and selection procedures. Subsequently, the process of user experience talk-throughs is described. Then the data analysis

processes are outlined, exploring the iterative and ongoing analysis conducted. The chapter concludes with a discussion of validity and the limitations of the study.

Research Setting

The setting for this research occurred at a graduate school that offers a variety of master's and certificate programs built around emerging and interdisciplinary professions. Of these programs, approximately half are online or "hybrid" programs, where a significant amount of course activities occur online, although there are 3-5 face-to-face residency sessions per semester which take place over weekends. These courses are hosted on the learning management system (LMS) Canvas, where the majority of the materials are posted and social exchanges occur: syllabi, activities, readings, resources, discussion forums, assignments, etc. Most of the courses also have weekly "live sessions" hosted on the webinar platform Adobe Connect, where students and faculty members meet for 60-90 minutes in virtual synchronous events that encompass lectures, group work, student presentations, and other forms of classroom interactions.

An internal team at this graduate school (including instructional designers, course developers, educational technologists, and media producers) develops these online courses. The design and production cycle occurs the semester before the course begins or even earlier. At the start of the production cycle, the academic program directors have approved the course syllabi, so there is an already-established scope and sequence to the course with learning objectives aligned with program objectives. The faculty member begins working closely with an instructional designer, and then consults with other team

members for media opportunities, technology needs, webinar ideas, and other course elements.

The profile of a typical faculty member at this graduate school is that he or she is an adjunct faculty member, as this school does not offer tenure in its organizational structure (although some faculty members are tenured through other schools under the overarching university). Most are professionals in the field, often working as consultants or full-time employees at agencies such as advertising firms or technology companies. As the programs in this school are designed for “emerging professions” in fields such as communications, technology, and sustainability, it is an intention of the school to hire faculty who are actively working and involved in their professions and industries.

The student profiles for this graduate school vary by program; for instance, the average age of a student entering a program in actuarial science is 23, whereas the average student age in the landscape architecture program is 40. The median age of the student population is 27 years old; 25% are international citizens. Seventeen percent of all students held advanced degrees upon admission, and 25% of mid-career students (defined as those with over 10 years of experience) received advanced degrees upon admission.¹ This graduate student population comprises of adult learners, whom (to generalize) embody adult learner characteristics such as self-direction, internal motivation, and goal orientation (Fidishun, 2000). Many of the graduate programs have goals to expand enrollment to students outside of the immediate metropolitan area, as well as to reach international students (Dean’s All School address, Spring 2013).

¹Data supplied by the Strategic Enrollment Management office at the graduate school

Role of the Researcher

Throughout the course of this dissertation study, I was a full-time employee at the research site. My job title was Senior Media Producer, and in this role I was involved with producing video content for online courses. The videos our team produced have a wide range in both purpose and production value; some of the types of media we created include animated pieces, documentaries, guest speaker interviews, content lectures, simulations, scripted scenarios with actors, and other types of videos. We typically produced around 70-80 media assets every semester, hosting videos on the website Kaltura (a technical platform for storing and embedding media used by many higher education institutions).

The workflow of the media production process generally began with a meeting between the course instructional designer and a member of the media team. From there, we established a media plan with video assets correlated with explicit course goals or assessments. There are design parameters in place; media pieces that might have a longer shelf-life, with “enduring truths” were prioritized; media that may have potential repurposing potential for marketing goals were also allocated more resources (such as extensive animation). Once the media plan was established, pre-production began. Faculty members created and sent outlines or scripts for review; animated videos were storyboarded. The media team arranged dates for production, and reserved spaces for video shoots and coordinated necessary permissions and/or fees for these spaces. During production, the media team also contracted for any necessary external help; audio, lighting, camera, backdrops, teleprompters, etc. were set up; and the media was produced with faculty members usually delivering the content. In the post-production process,

videos were edited 1-3 weeks after shooting; then a review process occurred involving the instructional designer and instructor. Final videos were compressed, exported, and uploaded to Kaltura, then embedded within the online course on the Canvas platform.

Working as a media producer in this context situated me in an ideal position to research how video is perceived by students, and their experiences with online courses. This dissertation study received support from my internal team as well as the dean-level administration of the school. I had daily access to Canvas, Kaltura, and all sites where media is hosted and/or accessed. I also have an intimate understanding of the production of these videos, and existing relationships with faculty members in the school; I have tacit knowledge of courses, course media, and the organization, providing me with an “emic” or insider perspective of the online course environments. Additionally, this dissertation study was methodologically situated in such a way to investigate ways in which to better understand, and by implication, better design for student learning environments.

Participant Selection

I recruited interview subjects through email via batch messages to graduate students (see Appendix B) in two graduate programs at the setting, to a total of 76 students. As an employee at the research site, I had access to student contact information, and also had permission from the program directors to email their program cohort regarding participation with this research project. The email message explained the purpose of the study and the estimated length of time the interview would take (30-60 minutes), as well as the approval number from the Institutional Review Board. The

interview times occurred at the convenience of the participant, either in person, over Skype, or over the phone. Participants were remunerated with a \$20 gift card to the online retailer Amazon.com. The tactic of offering a gift card as compensation was an effective recruitment strategy.

The selection for participants was voluntary, and the 14 participants who volunteered (from a recruitment pool of 76) were accepted as research participants. Because the participant requirements were that the interviewee was a graduate student enrolled in an online course at the research site, and the methods by which they were contacted (via email) was only broadcast to specific student populations, all participants were considered eligible. Two programs were considered for participant recruitment: an executive master's program in Technology Management, and a master's program in Strategic Communications. These programs were selected due to the significant role of media in the course designs, as well as the diverse range of media types. Additionally, both programs have similar student profiles (full time working professionals), but have contrasting curriculum and content, which offer a wider range of student perspectives. I conducted 14 semi-structured interviews—8 of the students were enrolled in Strategic Communications, and 6 were in the Technology Management program. 6 were men, and 8 were women. All participants were in the second year of either a two-year or 16-month master's program, and were currently enrolled students (taking courses at the time of their interview). This was an intentional choice—these were students with extensive experiences with their programs, yet still currently enrolled and actively taking courses.

Interview Methods

This dissertation draws upon qualitative interviews and screen-recorded “talk-throughs” as forms of data collection. I begin this section by framing the methods of interviewing: the research method of interviewing takes up a position of phenomenology, a paradigm that asserts that human perceptions and reactions are valid sources of data (Schutz, 1967). Interviewing under the phenomenological construct strives to understand a person’s experience from their point of view (Seidman, 2012, p. 17). Relying on data gathered from interviews operates under the assumption that participants are capable of knowing and sharing their beliefs and interpretations with the researcher (sharing experiences and reflections that the researcher is unable to directly observe); in turn, this method also assumes the researcher is able to analyze the interview data (language that reconstructs events outside of the interview context).

As discussed in the previous chapter, the term “experience” is both elusive and rich, and interviewing subjects to examine their experiences with online instructional videos poses inherent limitations. Because we are always involved with experience, there is no omniscient view; and the ways in which we talk about experience is conditional, and given to change according to future events and recountings (McCarthy & Wright, 2004). Bruner (1986) contended that the relationship between experience and expression of experience is inherently problematic, as thinking about and talking about experience changes it, and in turn, our experiences shape our expressions of it. Furthermore, in relation to education, McCarthy and Wright (2004) argue against the distinction between learning and “learning experiences,” as if learning is not an experience in which one is actively involved (p. 50).

While recognizing that narratives are not mirrors of what “actually” happened, and that they are interpretations influenced by purpose, audience, prior experiences, and other factors, interviews offer rich sources of data. The purpose of interviewing is not to test hypotheses; at core is an interest in understanding others’ experiences, and the *meaning* they make of their experiences (Seidman, 2012). As such, individual experiences are one way to learn more about abstractions such as institutions, or curricula, or laws. As Neumann (1998) writes, “I once defined college as a system of activities and events. But not long ago I changed that. I started to think of college as a conglomerate of experiences” (p. 437).

Semi-structured Interviews

The interviews I conducted were semi-structured interviews, which were carried out in order to gain an understanding of the “lived experiences” of graduate students and how they perceived their course videos (Seidman, 2012). Semi-structured interviews have an exploratory nature, and allow participants to provide detailed descriptions of various topics and reconstruct and integrate the meaning of their experiences (Kvale, 1996; Seidman, 2012); this tactic aligned with the research questions of this study. One of the strengths of the semi-structured interview is that it allows the researcher to investigate questions within a flexible framework, and both structure and spontaneity are engaged. For example, this approach allowed me as an interviewer to ask clarifying, expansion, or follow-up questions. Below is an excerpt from one of the semi-structured interview transcripts, in which the conversation was based on the interview guide but also deviated from the “script” in that I was able to ask the interview participant to speak further on certain points.

Interviewer: Do any videos come to mind, that you can think of, that helped you learn? If possible try to be as specific as you can, with examples.

Participant: I think the videos are definitely helpful with learning because they give you the opportunity to see things in black in white. So there are videos where you have the instructor speaking and then they'll also outline using sentences or bullets or whatever it is within the video so you're actually getting to hear them and then see the information in front of you. You can either take notes from it or just have something as a visual that you can reference back. So that's definitely helpful. And also just having it as a permanent resource—having the video there as something you can go back to and that spells things out a little bit more specifically than maybe would be done in another situation—like in-person. So in those instances it's very helpful.

And then also just in one of my classes—one of the communications related courses—the professor used examples from the show *Mad Men* to kind of illustrate each of the different lessons and points that he was making. So with each theory that he introduced he showed a clip from *Mad Men*, which of course a lot of people watch, so it helped bring the ideas to life a little bit more. So that was really helpful.

Interviewer: I see. So in that specific example the faculty was referencing a media text, if you will, that you were familiar with and then also giving specific examples of concepts.

Participant: Exactly. So in case the concept is confusing, there will be a clip from the show that illustrates exactly what he's talking about. So that helped us understand it better and also for it to stick longer because we're remembering the clip versus just being told.

Interviewer: You also mentioned that having bullet points or text appear is helpful. Are there any other visuals that come to mind as being helpful to learning?

Participant: I mean what's been most helpful for me has been seeing the text there. I personally have a visual kind of memory so when I see the text up there, it helps. And then as I mentioned, the clips that make the topic more relevant also help. For the most part seeing the instructor just sitting in the video, speaking to the camera hasn't always been that helpful. That more of a

lecture style versus the example and the text and a mix of different things hasn't always been the best method.

Interviewer: I see. So, correct me if I'm wrong, but you would say you prefer videos that are not just talking head style. However, did you notice that there were any variations between the talking heads videos, like if some were better than others—whether that's the faculty presence or the length of the videos or the content they were talking about. In your experience, are there differences between talking head videos even if they are of a similar style?

Participant: Yeah, like the one that I mentioned with the Mad Men—those were really good videos. He did have the talking head portion but he broke it up with the clips and then also with written text that popped up. So it was a combination of the three. And I would say the videos were maybe 10-15 minutes; so not too long. And then he broke it up into 1, 2, and 3, which made it more manageable. And then in some instances there were videos that have interviews or more people—like a panel. Those tend to be more interesting—the ones that are conversational. It's really just the ones where it's too long, like maybe half an hour or so and it's just the talking heads—so it's like a lecture mostly—those have been the least helpful. So the ones that are a combination of different things and also a manageable length... And also, another thing that's helpful is when a video sticks to one topic. So when it's a ten minute video on “positioning statements” that's just one idea and the next one's on “brand strategy” or something like that; that's also helpful versus a 30-45 minute video that covers multiple things.

This interview excerpt highlights the semi-structured and reflexive affordances allowed by the methods of interviewing, where questions (following a guide) can “anchor” a conversation, yet the interviewer is able to ask for clarification, follow-up questions, elaboration, and so forth.

After students responded to the batch recruitment email and volunteered to be research participants, I coordinated a convenient time and platform for them to be interviewed, suggesting to block off an hour of time with the caveat that it would likely

take less than an hour. 4 of the 14 participants, who also happened to be employees at this institution, came for face-to-face interviews with me, which were conducted in a private conference room at my workplace. The rest of the interviews were held over the phone (3 of 14 participants) or over Skype, a free online communication application (7 of 14 participants). The availability to conduct interviews at a distance was a necessary approach for this study, as the majority of the interview subjects are busy working professionals with limited available time slots; also, some are not located in the immediate metropolitan area. Some could only talk on the phone, during times and spaces when they could not be near a computer (my first request with participants meeting at a distance was to speak over Skype, with the addendum that we could also speak over the phone if that was more convenient).

While guided by over-arching questions found in the Interview Guide, the interviews I conducted were conversational. I first began the interviews by explaining the purposes of the study, and explicitly stated that the interviews would be recorded (although no identifying information would be used in research reports or presentations). I also assured them that at any point I could turn off the recording device. During the conversations, I would often ask participants to repeat, elaborate upon, or clarify some of the topics they mentioned. Throughout the interviews, I recorded observational notes, which I reviewed, annotated, and added further notations at the conclusions of our conversations. The phone and in-person interviews were recorded using a handheld audio recording device called the Zoom H4N; afterwards the audio files were saved in a password-protected folder on my computer. The interviews conducted over Skype, and the in-person interviews where participants participated in a “talk through” exercise

(elaborated on in the next section), were recorded using the screencapture software Silverback. These software applications allowed for the recording of on-screen camera movements, as well as both internal and external audio inputs; these files were saved as video files (.mov formats), which were also saved in the same password-protected folder on my computer. The interviews ranged between 30-60 minutes. The 14 interviews were subsequently transcribed into text files, which were then uploaded into the data management software Dedoose, a cloud-based qualitative research tool that allows for robust coding and visualization tactics.

The semi-structured interviews followed an interview guide (see Appendix A), although while conducting the interviews, I did not necessarily ask the questions in order, and instead let the interview flow as a more natural conversation. The interview guide was created based on some of the recommendations of Berg and Lune (2011, p. 150), which suggests starting with broad questions and then moving to more narrow questions, using open ended questions (avoiding yes/no questions), structuring the questions with as logical transitions as possible, allowing for probing and follow-up questions, etc.

Participants verbally discussed in both broad and specific terms their viewing, sharing, and watching habits of online course videos. I made note of their reflections on their experiences with course videos, and they ways they described if (or if not) media helped them learn. I elicited their self-reported viewing behaviors, such as if they watched the media to completion. I inquired as to the sociocultural contexts in which students engaged with, attended to, and interacted with these artifacts: where did the students watch the videos (such as while commuting, at home, at work, etc.), and what hardware devices did they use. I asked participants if they discussed the videos, and with

whom, and if they applied anything they learned from the videos. Briggs (1986) contests the idea that an interview can represent “the truth” in the world, especially when the interview is considered an event that is co-constructed by the participant and the researcher. A tactic Briggs suggests to counterbalance this limitation is for the interviewer to strive towards “reflexivity”—being attuned to the ways in which the researchers’ background and actions contributes to the construction of the interview. Reflexivity was something I actively attempted to enact as I conducted and analyzed these interviews, maintaining awareness of my own presence, biases, and role in shaping these conversations.

User Testing “Talk-Throughs”

I conducted user testing “talk-throughs” with a select number of participants (6 total), in which they watched online instructional videos (which I guided them towards), and they watched videos in real time, discussing what they noticed, made meaning from, what stood out to them, and in general articulated their viewing experiences and reactions aloud. I selected 6 participants (instead of all 14 participants) for purposes of limiting the scope of data collection and data analysis; additionally, as I began the process of data analysis, I started to reach a point of saturation where it did not appear that collecting more talk-through data would lead to the emergence of new themes. The participants who could be interviewed face-to-face formed a “convenience sample” for conducting talk-throughs, as I was able to use a special type of software, Silverback, employed in user

testing (and could not be used remotely).² However, I conducted two talk-throughs via online communication, through the screen sharing features of Skype.

The user testing talk-throughs became one of the richest sources of methodological data for this dissertation study, and the themes that emerged from these talk-throughs ended up guiding much of the qualitative findings. The first talk-throughs I conducted shaped subsequent talk-throughs, as I aimed to refine and collect more data around emerging trends.

The user testing “talk-through” methodology draws its lineage from “think-aloud” protocols, a type of research method in which participants are guided to complete a task and verbalize their thought processes. Think-aloud protocols emerged from the realm of cognitive psychology (Lewis & Mack, 1982; Ericsson & Simon, 1998), and have been applied in different research settings. In user testing, think aloud protocols became the standard way to evaluate system usability beginning in the 1980s, such as ease of use for a novice interacting with a computer system (Gould & Lewis, 1985). Although users do not typically think aloud when interacting with websites in the “real” world, and there is the possibility that using think aloud methods influences participant behavior, performance-based studies have not found differences between think aloud and non-think aloud conditions (Ericsson & Simon, 1998; Olmsted-Hawala et al., 2010). This was not a performance, task-oriented, or cognitive-based study, but this research suggests that

²Because user testing methods are not commonplace in academic research, I consulted with two colleagues who work in the technology industry in NYC about how they conduct user testing research. One is a UX/UI designer at Etsy, the other is a project manager at Google who has worked on user research; they recommended the software Silverback, which has affordances such as highlighting where the user navigates and clicks, and capturing audio and video both internal and external to the computer.

asking participants to verbalize their experiences does not “invalidate” the articulations they might experience in an unobserved setting.

I first embarked upon these talk-throughs as a method to strengthen the methodological validity of this study, considering them as an additional multimodal entry point of engagement and discussion, rather than solely relying on verbal language for students to discuss their experiences with online instructional videos. However, I soon found them to be a ripe method to investigate my research questions, and better understand the ways in which students were making meaning from these semiotic artifacts, and how they were interpreting and reacting to design elements found within the videos.

In order to focus the scope of the data collection of these talk-throughs, I selected videos that I found to be “typical” of the range of instructional videos produced for these online courses. These “typical” videos featured a speaker (either a faculty member or guest speaker), ranged 4-6 minutes in length, with light graphics embedded throughout the video (such as animation, text, or b-roll), that was original content produced for the course by the internal media team (so not found or already-existing footage). This was a conscious decision I made, to select videos that students were most often interacting with and watching in the course, as a way to have a more “generalizable” set of data collected (rather than selecting a type of video that would be considered atypical). In the talk-throughs I conducted with six participants, I also made the conscious choice to have students watch and discuss at least two videos—one video from their program, and one video from outside of their program. This was a decision made in order to collect data

with a wide range, so that students watched, reacted to, and made sense of videos they were both familiar and unfamiliar with.

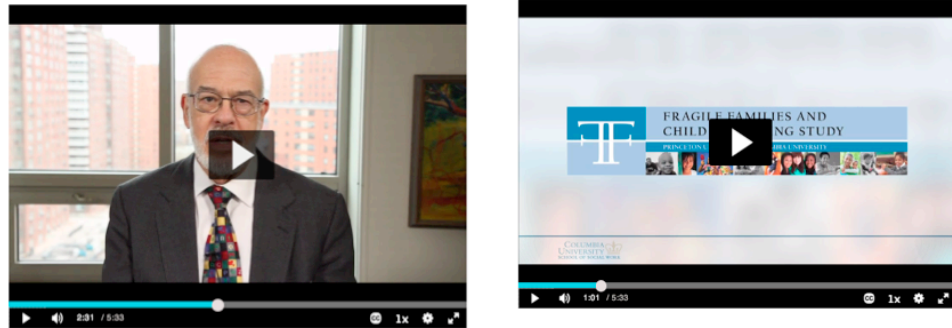


Figure 2. Screenshots from one of the videos that participants watched in a talk-through

The user testing talk-throughs were all screen captured and saved as video files. The audio files were transcribed, and as I began to examine the data, I watched the screencaptured video files and took observational notes on what was occurring, marking the time codes of the video with certain moments in the audio transcriptions. The user testing videos offered multimodal and multilayered dimensions to the text transcriptions, allowing me to go back to certain moments in conversations and observe the participants' actions and sense-making while navigating online course websites.

Data Analysis

Data collection took place during fall of 2014; the 14 interviews were conducted over a time period of approximately three months. As I completed the interviews, they were transcribed, and then uploaded to the cloud-based, password-protected qualitative research platform Dedoose. Dedoose is a research portal, similar to other qualitative

research software applications such as NVivo or ATLAS.ti, which offers a range of features including coding, analytic memos, excerpts, and data visualization tools. My qualitative research analysis followed an inductive approach (as opposed to a hypothetical-deductive one), in that I examined the data for the emergence of conceptual categories and descriptive themes (Creswell, 2007).

The data analysis process was ongoing and iterative (Luttrell, 2010). While I adapted an inductive to stance to analyzing my data, it was also guided by the framework of sense-making as developed by McCarthy and Wright (2004). The first stages of my data analysis process began with initial notes—“what stood out” to me—which I recorded through analytic memos and comments. I labeled, identified, and classified different developing ideas; these reflective memos informed the emerging codes and themes (Marshall & Rossman, 2006). As I continued to read through the data, focusing on the interview transcripts, I began to form initial codes in Dedoose. I applied and tagged these codes to various excerpts, overlapping ideas and themes, continuing to refine and rethink these categories. Some of these early codes included viewing habits, instructors, technology problems, live sessions, peers, etc.

In what I would describe as the “second stage” of data analysis, in which I continued to make continued passes through the data and utilized the affordances of the Dedoose software, I further refined the codes, collapsing them, renaming them, and organizing them into hierarchies. Every slice of every interview transcript was coded. I began to view patterns across the codes, and continuously strived towards “pulling the data apart and putting them back together in more meaningful ways” (Creswell, 2007, p. 163).

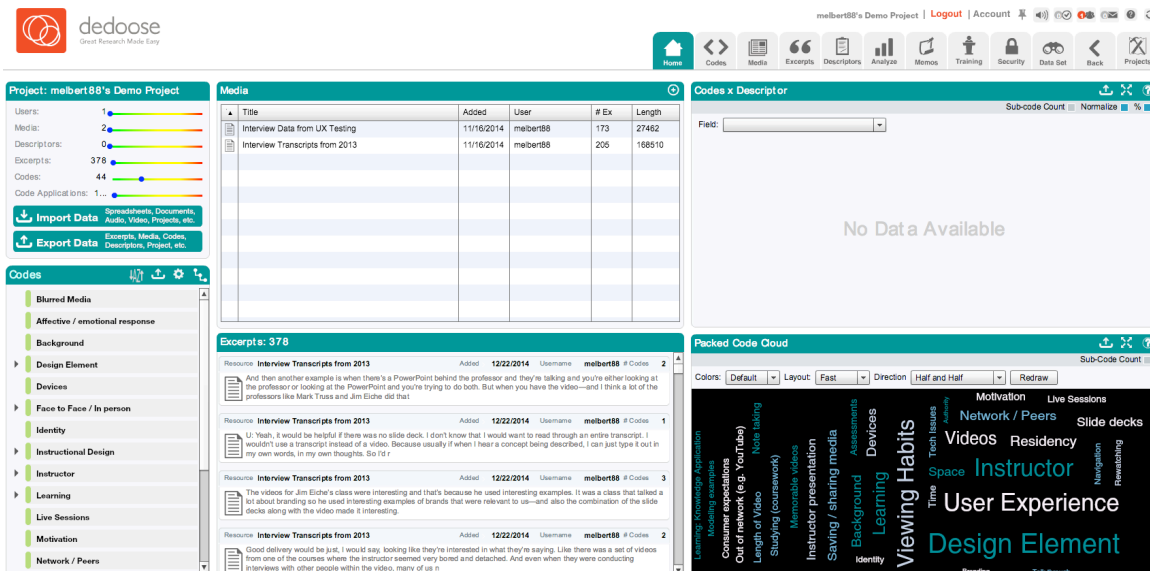


Figure 3. Screenshot from the cloud-based data management software Dedoose, and the dashboard view of my data analysis

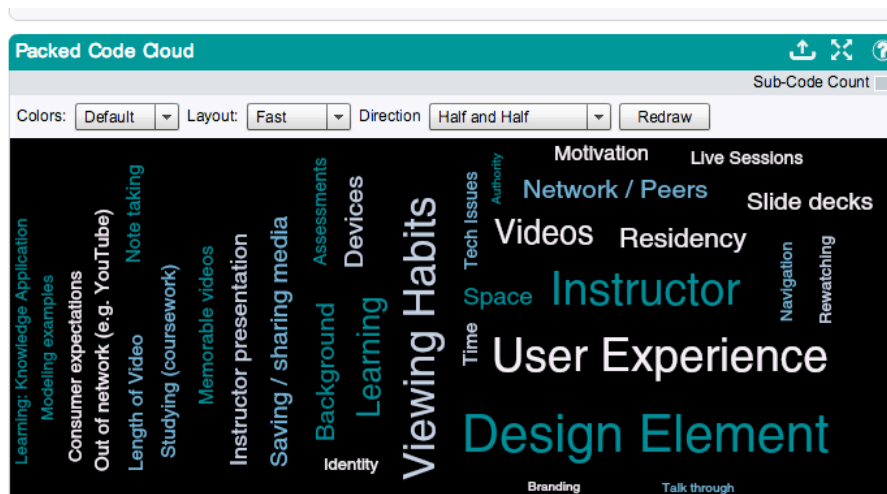


Figure 4. An example of one of the visualization tools that Dedoose offers, which assisted me as I continued to expand, collapse, and refine my coding schemas

Figure 5. A screenshot of the coding of the interview data, as I continued in the process of data analysis

In what I would describe as the “third stage” of data analysis, I began to organize codes and patterns in ways that I found them to relate to each other, always keeping my research questions in mind and considering, *what is happening here?* Throughout this entire process, I continued to compare, and to go back-and-forth between categories and codes, looking for patterns and connections. Over time, meaningful relationships between the constructs began to emerge; uncovering the regularities or patterns among categories is a process of thematic analysis (Shank, 2006). I found my research questions to be helpful guides as I continued to analyze and understand the data. As aforementioned, I found the six processes of meaning-making as defined by McCarthy and Wright (2004) to be useful in the data analysis process, which include: anticipating, connecting, interpreting, reflecting, appropriating, and recounting.

I began the writing process at this stage, as my ongoing data analysis lead me to overarching themes, which I felt compelled to describe as they began to answer my

research questions related to how students were experiencing instructional videos in online environments. As I drafted this writing, I frequently revisited the data for more details, greater clarity, and continued analysis.

Validity

In the realm of qualitative research, many researchers have rejected the concept of validity as it has positivist connotations, instead favoring terms such as credibility, authenticity, or similar ideas (Lincoln & Guba, 1985). Validity, in a broad sense, relates to the relationship between a claim, and the phenomena that it is about. In this dissertation study, my goal was not to achieve “validity” as it is understood in quantitative or “objective” research; rather, my goal was to achieve “trustworthiness” (Miles & Huberman, 1994). Miles and Huberman provide an extensive list of strategies used to attain trustworthiness in qualitative research; below I explain which tactics I employed in order to reach this goal.

One strategy (and a tactic often employed by ethnographers) is intensive, long-term involvement. While I have not been as intimately involved with the student side of these online courses, I was an employee at this setting for over three years. I have a significant amount of “insider” knowledge about the administration, faculty, as well as the instructional design and videos produced for these online courses. The questions related to how students are experiencing the online courses, and specifically the ways in which they are interacting with the online videos, are questions I have been thinking about and considering for a very long time, dating back to much earlier than when this dissertation study began. While not the scope of this study, my long-term involvement has provided

me with many additional “data points” that have informed my research; these other sources of knowledge include reading course evaluations, examining the back-end analytics of our video hosting server, talking with faculty members, and informal conversations and agreements among the production team. I believe this long-term involvement has provided me with cachet and understanding that strengthens the validity of this study.

A second method of validity employed in this study was that of saturation, or continuous data collection to the point where adding more data does not add more insight. While I would hesitate to claim that every rock was overturned, and that no new data would contribute to my findings, I did reach a point of capacity with my data collection and analysis. I had originally considered interviewing a greater number of participants, as well as conducting in-depth multimodal transcriptions and artifact analyses, but after a certain point I found that no new schemas or themes were emerging. Thus, I felt that I had reached a point of saturation and did not need to collect more data.

A third method of validity that I undertook for this research was triangulation. Triangulation, or drawing upon multiple sources of data, is a method often used for validity in qualitative research (Merriam, 2009; Miles & Huberman, 1994). By employing different methodological tools of data collection—semi-structured interviews and real-time user experience talk-throughs—I was able to look between various data points and verify, corroborate, cross-check, and compare emerging themes. Through these tactics of long-term involvement at the research site, saturation, and triangulation, I believe that I was able to establish trustworthiness for this dissertation study.

Limitations

There are many limitations to this study. One limitation is that the key research methodology—participant interviews—relied on self-reported data. The aspects that subjects discussed in interviews is what they perceived to be salient, important, or significant to their learning processes and reaching course goals; however, these perceptions may not align with exactly what occurred in their learning processes. People frequently forget details, what they learned, how they spent their time, etc. Additionally, there is the potential of self-reporting bias where participants may give answers they believe are desired (for example, participants stating they watched all of the videos in their courses, even if that might not have actually been the case). Also, the interview talk-through methodology creates an artificial environment in which students are reacting to, discussing, and making sense of online instructional videos. This is not a “natural” setting in which participants would watch these videos, nor does one normally talk through their sense-making of multimodal artifacts, and their reactions to non-verbal features.

Additionally, the data collection of this study was limited to participant interviews. I did not, for instance, collect other points of information from the online course, such as observations from webinar sessions, or online discussion forums, exam grades or other assessments, and so forth. I acknowledge that aspects of the educational and learning facets of this research study could be stronger. For instance, I did not ask students (during talk-through interviews) to summarize the content they learned from the video; I did not conduct content analyses of the videos, to see how the content aligned with syllabi or broader programmatic learning objectives; I did not conduct deep profiles of individual students, or hold follow-up interviews later in time, on the topic of learning experiences.

Another limitation is my own role at the research site. While in some ways it is a strength, as I have access to course media and an intimate knowledge of courses, faculty members, and the video production process, it also carries inherent biases. I personally created some of the online videos, as well as contributed towards the instructional design of some courses, and so this intimacy and proximity brought with it the challenge to be “objective.” I aimed to counterbalance this by “making the familiar strange.” I also consulted with colleagues at my workplace, in particular members of the instructional design and media teams, and they provided feedback and perspectives on my emerging analyses.

There is also a great irony in writing a text-only dissertation about online videos, through the framework of multimodality, and describing how modes (visuals, gestures, etc) facilitate communication; when this research is communicated through a verbocentric, text-based artifact. However, select portions of salient data excerpts, from videos and talk-throughs, are posted online so the reader can examine some of the semiotic resources that the research participants also experienced (www.melaniehibbert.com/research).

Chapter IV

ANTICIPATING: PROFESSIONAL SELVES

“I wanted to step out from behind the terminal.”
-Interview participant

In this chapter, I explore the expectations students brought to their learning and course experiences, and how their anticipations and motivations—the ways in which they approached and framed viewing their online courses—shaped their sense-making and experiences with instructional online videos. The expectations, possibilities, and prior experiences with which one approaches an event (or in this instance, an online instructional video) is part of the sense-making process (McCarthy & Wright, 2004). Drawing from semi-structured interview data, I look closely at students’ motivations for enrolling in online courses; their previous experiences with online instructional videos (if any); the devices they used and physical spaces they occupied before they even pressed “play” on a video; and the habits (such as note-taking) they purportedly prepared for and embodied during their viewing. I also emphasize the professional motivations of the participants, and offer interview excerpts related to how students have applied their graduate program knowledge to their workplace.

The setting for this research project is a private, Northeastern college; in particular, this study is focused on students enrolled in online graduate programs that offer professional master's degrees in the "emerging professoriate." These programs include recent and developing industries intended to address shifts in the 21st century economy, such as sustainability, data analytics, technology management, and other disciplines. All of the students are adult learners; most are working full time and have other obligations such as family, work-related travel, and so forth. The online programs were designed with the student profile of adult learner kept into consideration; class times are held in the evenings to accommodate work schedules; the online platform offers the flexibility for people not local to the urban area, or who travel frequently, to complete their courses. Many of the programs have an emphasis on professionalism, and course curricula includes aspects such as mentorships with people working in industry, networking and recruiting events, and guests speaking about their career paths and experiences.

Throughout the interviews with 14 students, the centrality of their professional lives, selves, and motivations became evident, and these personal contexts shaped their expectations for their online program, courses, and on a more granular level, their experiences with online course videos. *Every* participant I spoke with explained that his or her reasons for enrolling in the program were professional ones, related to future aims such as a promotion, acquiring job skills, or a career change. These personal expectations and anticipatory stances informed their sense-making experiences with viewing online instructional videos. Below, these themes are explored and supported using excerpts from semi-structured interviews, with a particular emphasis on the professional dimensions that were discussed.

Enrollment Motivations

The purpose of graduate school, and of higher education, is a deeply contested one in the United States. This is a question discussed among politicians, professors, students, parents, journalists, and essentially all stakeholders related to secondary education. Recent books and documentaries related to this topic include *Academically Adrift* (Arum & Roksa, 2011); *Excellent Sheep* (Deresiewicz, 2014); *American Higher Education in Crisis?* (Blumenstyck, 2014); *College (Un)bound* (Selingo, 2013); *Ivory Tower* (2014); *Declining by Degrees* (2012); and many other articles, videos, op-ed pieces, etc. The trillion-plus student loan debt, the admissions requirements, the organizational structure of universities including tenure and adjunct-tracks, the development of online programs—these are all facets to this debate. At the core of many of these deliberations is: what is the purpose of higher education? Is it so graduates are able to get jobs upon degree completion (and gain the requisite competencies for their employment)? Is it so students are effective and capable citizens, able to make judicious decisions related to voting, serving on a jury, and become “lettered people” with civic virtues (as per the 1636 mission of Harvard College)? Is the purpose of higher education to become adept at critical thinking, and gain the ability to understand, evaluate, and critique arguments, understanding the limits of knowledge?

The context for this research study is a graduate school offering master’s degree programs, and therefore in some ways it is external to these debates that primarily center on undergraduate education in the United States. However, the motivations for student enrollment in these programs is relevant to how they perceived their learning experiences, and their personal goals for attending graduate school. One clear pattern

emerged: *every* student I spoke with cited professional reasons as one of, if not the primary, motivation they had for entering their current master's program. Many explained how they wanted to strengthen their current skillset, and acquire knowledge they could apply to their current roles. For instance, one participant explained his reasons for matriculation: "I wanted to move beyond technical problems. I wanted to step out from behind the terminal, and move beyond just programming. I wanted to learn more management skills, and problem solving skills." Another participant explained how he viewed himself professionally, and believed he had gaps in his education and skillset. One student said she enrolled "because I want to learn more, and get better at my job." In these instances, participants' views of themselves led them to conclude they needed better skills in their professional roles and professional selves.

While many of the participants cited improvement of skills or knowledge sets, other explanations more explicitly referred to externalities, such as credentials or résumés. One participant discussed how she felt "it was necessary to get a master's to compete" in her field. Another explained how he wanted to "strengthen my résumé." Other interviewees described how they were looking for a career change, such as: "I was interested in this program because I was looking for a career change"; another stated, "I want to transition to a different career path"; still another participant explained, "I wanted to get a foundation in communications and then also transition into a different career—either during or after the program."

The mission statement of this school is: "To transform knowledge and understanding in service of the greater good, defined as a just, sustainable and compassionate global society." This mission statement is not necessarily mutually

exclusive with students' expressed personal goals and motivations for enrollment; however *none* of the students I spoke with mentioned any of the key words from the mission statement (i.e. service, greater good, global, sustainable, etc). This finding aligns with what Chan, Brown, and Ludlow (2014) found in their meta-analysis of student and institutional perspectives on the goals of undergraduate higher education, concluding: "Our findings suggest that student expectations for completing an undergraduate education tend to be very instrumental and personal, while higher education institutional goals and purposes tends towards highly ideal life- and society-changing consequences" (p. 26). One could argue that mission statements are aspirational in nature, and individual goals tend to be more concrete and specific. Regardless, a clear theme that emerged throughout the interviews is that students enrolled in these master's degrees for career advancement purposes (and not explicitly for reasons listed in the institutional mission statement, such as service towards the greater good). Before continuing on to discuss these professional motivations and how it shaped student learning experiences in relation to online videos, I first want to delve into the different viewing approaches that participants discussed during our interviews.

Viewing Approaches

The ways in which students discussed how they approached online videos—the anticipatory behaviors they enacted before even opening up an online course page and clicking "play" on an online video—varied due to the embedded and social contexts of both the participants and the videos. Viewers' expectations of watching instructional videos—even if they are similar in nature (length, production values, and instructional

purpose)—are different according to the context in which they are viewed. The self-reported ways in which students interacted with their course videos (such as where they watched it, their viewing habits such as note-taking, downloading, and so forth) shifted for course videos as opposed to other online videos watched for learning purposes. In this section, I argue that students' approaches for watching instructional videos are different between online videos found in course contexts, as opposed to online videos found in non-course settings.

Instructional Non-course Videos

Throughout my interviews, many participants discussed their viewership of online videos for informal reasons—looking up videos on YouTube (a popular video-sharing website) for “just-in-time” learning or informal learning purposes, such as how to cook a certain dish or how to tie a tie. For example, one participant explained using Lynda.com¹ tutorials for professional development reasons, including learning new software and social media tips for her workplace role. But as she explained, contrasting her viewership of Lynda.com videos and her experiences with course videos, “My expectations are not the same.” When I asked the participant to elaborate why her expectations were “not the same,” she responded:

I mean, it's just not the same thing as watching a video for a course. I'm skimming it, I'm just finding the one section that I need. I'm just trying to figure out how to apply a certain filter in Photoshop, if that makes sense. It's just a different thing than if it was for a course.

¹Lynda.com is a training website that offers courses in all types of subjects, ranging from software tutorials to web design to project management (as of 2015, it offers 3,351 video courses). These training tutorials include online videos and transcriptions, and require paid memberships.

Below is a screenshot taken from Lynda.com, from a Photoshop tutorial. The Lynda.com tutorials features online instructional videos, with text transcriptions below the videos. The tutorials are generally four minutes or less; they are organized into smaller chunks from much lengthier expositions.

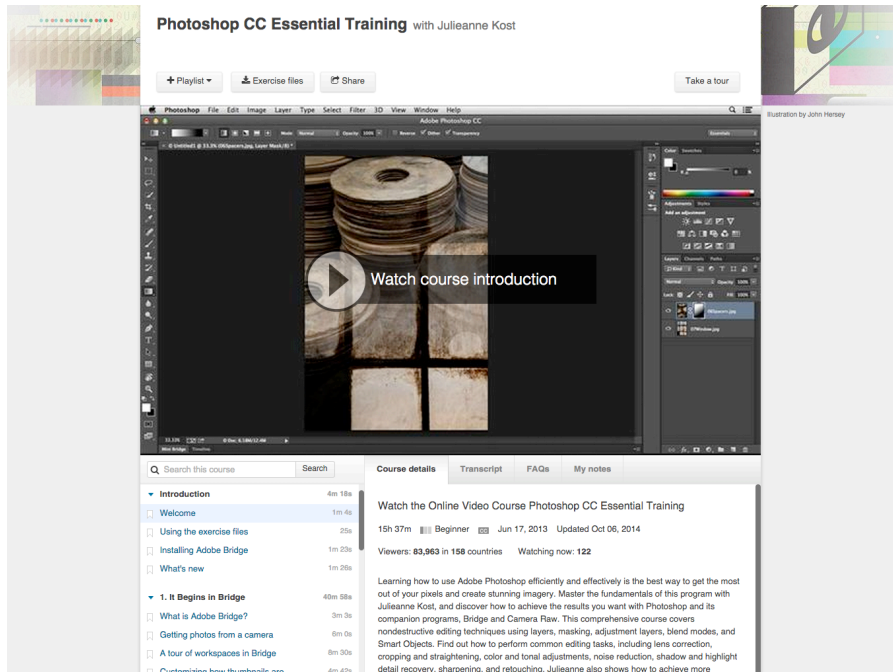


Figure 6. A screenshot of a Photoshop tutorial in Lynda.com

As the participant stated, watching a video tutorial on Lynda.com—even if, for instance, a video related to how to apply a Photoshop filter has similar characteristics as the online instructional videos in her Strategic Communications course—“It’s just a different thing than if it was for a course.” This participant self-describes her approach and expectations between course and non-course videos as distinct.

Instructional Course Videos

Evidence that supports the phenomenon that students approach course videos and non-course videos in different ways became manifest when I talked with students about the ways in which they watched their course videos. Their self-reported behaviors (which does have inherent methodological limitations, addressed in the previous chapter) of watching course videos contrasted with the self-reported behaviors of watching non-course videos.

For example, many students explained how they adjusted their viewing habits over the course of their initial matriculation, changing their behaviors from how they might have originally watched the videos (such as watching content the way they might in more informal contexts such as YouTube). As one participant described: “I guess one thing that I slowly learned is that I do need to treat it as a class even though I’m not there in person with the professor and students. Because at first I was like, ‘oh I can just watch this video and multi-task’ and then I realized, no I actually need to treat it like a class and watch it, sit down and take notes.” This comment reflects how the ways students approached the course videos for learning involved specific behaviors, in particular note-taking (which is an activity participants self-reported they did not do when watching non-course videos, such as instructional YouTube videos). As this participant said, “I actually need to treat it like a class.”

Many of the interview participants discussed the ways in which they took notes while watching instructional course videos. Some excerpts from the interviews related to note-taking include: “I like to have access to a keyboard when I’m watching so I can pause and take notes and cut and paste things”; “There are the videos where there is no

PDF with slide decks to go with it so I would take more detailed notes about the concepts”; “I’d rather just listen to the video and interpret it in my own way in my notes”; “I had a notebook for my classes, which is so old school...it made more sense to have a notebook where I could actually write it out and understand the ideas myself”; “I would watch them on the computer in a slightly more formal setting so I could take notes”; “I take notes, I do take notes when I go through the videos”; “I would try to watch the videos somewhere with a couple monitors so I could watch and type notes at the same time”; “I would definitely take notes with a pen and paper.” These numerous interview excerpts illustrate the specific ways in which students approached their course videos—such as taking notes, a behavior related to watching instructional videos for their online courses (and not something they would do for other online instructional videos). Additionally, the physical setting in which participants watched the videos was another dimension to their approach, such as working on a computer with two monitors to allow for note-taking, or working on a computer with a keyboard to allow for writing.

To further illustrate the ways in which students approached the online instructional courses differently than they ways they might approach videos embedded in a context like Lynda.com or Youtube, many explained their prior expectations of course videos before they even pressed the “play” button. In particular, several students expressed their expectations of the course videos due to the expensive costs of tuition, and the prestige of the institution (a top-ranked university). As one student remarked, “For an institution like [higher education institution] that does have all the resources, I expect very high quality. And there’s no reason that there shouldn’t be high quality.” Another student explained, “I would not be happy if the course media was just pulled from outside sources, especially

given our tuition rates.” A third participant said, “I do expect a certain level of curation and production value, especially given the tuition money spent.” These instances illustrate how the broader context informs the ways in which students approached the videos, and how expectations before the student even clicks on the video influences their viewing. These anticipations include: the videos are like “formal school,” which require note-taking and watching on devices that allow for note-taking; and that due to the high levels of cost and prestige, the videos should embody a certain level of quality. In the next section, I discuss about how other social and contextual factors shaped students’ viewership—in particular, how students’ professional and work lives effected the ways in which they watched and interacted with course videos.

Watching Habits Related to Work

Throughout the conversations I had with students about their experiences with their online masters’ degree programs, and specifically their experiences with online instructional videos, it became apparent that the ways in which they discussed their interactions with videos were often framed in relation to work. To add some context, many of the students in the Strategic Communications program work in communications roles at various places, such as non-profits, education institutions, corporations, etc. For example, one participant I spoke with conducts marketing strategy and creates marketing campaigns in the sports industry; another participant works as a communications officer for a non-profit labor union; another participant I spoke with leads branding and art direction at an advertising firm. In comparison, some of the professional roles of Technology Management students I interviewed included: a technology manager focused in data mining and data analytics; an IT governance program manager at a cable

company; and an IT finance manager. When I asked participants questions about where and when they watched videos, their responses were often framed in terms that were related to their professional lives—their viewing, and how they arranged for their viewing, was connected to the spaces and times carved out and available in relation to their work schedules and work commutes.

For instance, one participant explained how she approached her viewing of the online videos, and the process in which she would evaluate where she would watch the video:

So I need to know before I even start if this video is something I could do during those five minutes during lunch or ten minutes during lunch, or if it's something I have to set apart time on the weekend, five hours, and just go through everything. So for me, time is very important, the length is very important. Also, how many. So if I see there's three videos and they're five minutes each or three minutes each, I'll probably be more compelled to do them sequentially, one after another, and bang it out, like I said, over lunch, than I would be to sit down for one 25-minute video.

In this excerpt, the student describes the thought process by which she evaluates the video content, and decides where and when she will watch the video. The primary factor she assesses is the length of the video, which determines her viewing habits—if the video is short in length (“five minutes each or three minutes each”), she will watch the videos when she has spare time at work, during her lunch break. If the video is longer (“25-minute video”), it is something she will plan for when she has more time, such as on a weekend. This echoes other interviews, when participants explained how they would evaluate their time, and assess when and where they could complete their coursework; either on a day when they were not working at all and therefore had more flexibility (such as a weekend), or during breaks throughout their work day. As other students explained:

“Sometimes I watch them at work, which is nice. When I had a minute I could watch them at work”; and “Sometimes I’ll watch the videos at work if there’s downtime, or during my lunch break.”

In other interviews, participants discussed their interactions with course content—reading materials and watching videos—as occurring on their commutes, the daily time spent traveling to and from work. “I do a lot of work while commuting, mostly the readings,” one student explained. Students described how they often completed work while traveling in the NYC subways system, as well as the on the Amtrak trains (or Acela express). One participant who actually lives on the West Coast but frequently flies to NYC for her job expressed how most of her coursework (including watching course videos) occurs during her regular plane rides. She explained to me, “I’ll download them, save them and watch them later maybe on the plane during the commute where there’s no wifi.”

The times and spaces in which students consumed course content were often explained in relation to their job—what they could and could not do during their lunch breaks; what they were able to engage with during their work commute; and the technological affordances and constraints of their commute (such as downloading the video to be able to watch in offline spaces). The interview data suggest that the times and contexts in which students are viewing instructional videos shifts, such as between home, work, commuting, on their lunch breaks, and so forth. These fluctuating times and spaces have design implications (further explored in the Conclusion chapter). In the next section, I offer additional support as to the workplace-related and professional lens in which

students approached, viewed, and made sense of their learning experiences with online instructional videos.

Knowledge Application

Throughout many conversations with students and what they have learned from their coursework (and the course media), many students discussed how they applied their learning to professional and work settings. Some of this self-reported learning was spoken about in broad terms, such as how the program has helped them overall. For example, one participant told me, “This program has helped me professionally, especially in terms of working with different people. I feel like I’m able to sit in more meetings, and I feel more comfortable talking with deans and managers.” Another student explained that the Strategic Communications program in general and one course in particular has helped her with work presentations: “I now structure my presentations in a different way, from things I’ve learned from the program about ‘Knowing the Ask’.”

Other students described specific examples of content knowledge they have learned and applied to their current professional setting. For example, one participant explained how she directly applied tactics of persuasion, which she learned about from one course in Strategic Communications, to a fundraising project at her job. “This had an immediate impact. My boss and my boss’s boss took notice,” this participant told me. Another participant described how she applied a final project for a course to her job; this final project required students to generate a social media plan, and using that project as groundwork, she created a social media committee at her workplace.

In the interviews, participants gave examples of how their learning from the program, and from specific courses, influenced their professional domains. There were also specific references to the course videos in the interviews, and how students applied some of what they watched and learned from the videos to various work tasks. One participant explained how one video, featuring a guest speaker discussing knowledge management, was something that he directly applied to a work project related to scanning and digitizing archival work orders. Another student mentioned a video (a lecture video featuring the faculty member) related to project management, which he was also able to immediately integrate into his professional practice. Below is an image taken from the video related to project management, which an interview participant self-reported applying to a professional project.



Figure 7. Screenshot from video a participant referenced related to project management, which he applied to a workplace task

Students' expectations and professional motivations shaped their learning and application of learning; they viewed an explicit connection between their educational program and their anticipated career outcomes. This seemed to shape other expectations as well, such as the types of content provided in course curricula. For instance, in one

conversation I had with a participant about course videos, she explained, in relation to videos featuring guest speakers: “I want to hear more from different industry speakers. People who can say: ‘I worked on this content, I worked on this campaign, I was the head of digital for Coca-Cola,’ things like that for us to connect with.” In this example, the student voiced her request (and expectation) for additional content related to their profession and industry.

Circling back to the research questions, how do students make sense of their learning experiences from videos, in an online learning environment?, and how do students describe their experiences with course videos, in an online graduate course context?, findings from this study suggest that students’ professional motivations shaped their learning and application of learning; and that this also shaped their expectations and experiences with course videos. These professional contexts situated participants’ learning experiences, as far as their motivations for enrolling in the program; the spaces and times in which they consumed course videos; and the ways in which they applied their course knowledge.

Summary

Before pressing the “play” button on an online instructional video, students have contextual expectations and motivations that shape their viewing habits and sense-making. For instance, their behaviors and expectations for watching an instructional video in an online course are different than their viewing behaviors of other online videos, even if they are similar in length and instructional in nature. An example of this is

the behavior of note-taking, completed either by hand in a notebook or by typing notes on a computer.

The motivations of students also shaped the ways in which they approached their online courses. The interviews with this research participant population revealed their motivations to be professionally grounded, either for internal reasons (learning new skills) or external reasons (gaining a new credential). In turn, this professional orientation influenced the times and spaces in which they viewed instructional videos (such as during work lunch breaks, or while commuting); their expectations for the instructional video content (such as industry guest speakers); and their application of content learned both from the course and specifically from videos (e.g., to workplace projects). These inferences have design implications, such as foregrounding the accessibility of course resources by students in shifting times, contexts, and spaces.

Chapter V

INTERPRETING: TRUSTWORTHINESS

“[Guest speaker] seems like a trusted resource. He speaks with authority and confidence. Also I know [the instructor] is from that world and has a broad professional network, and she will curate top people in their field.”

— Excerpt from student interview

The themes explored in this section focus on students’ sense-making and interpretations of online instructional videos, with a focus on the theme of trustworthiness and the ways in which students assigned trustworthiness to their course videos. The data draw from interview excerpts (including interview talk-throughs of videos), considered through a lens of multimodal user experience. These findings discuss the ways in which students made meaning from semiotic resources found within the video artifacts. Design elements from instructional videos are explored—such as branding logos, title cards, backdrops, etc.—and the ways in which students talked about these design elements, and assigned meaning, credibility, and trustworthiness to these multimodal components.

The focus of this dissertation study is not on trustworthiness, to be clear, but it became apparent in the data analysis, as I focused on the ways in which participants interpreted and made meaning from online videos, that credibility was something salient. Credibility and trustworthiness became, in a way, a “proxy” of understanding the ways in

which participants interpreted non-verbal elements of online videos. In the way that scholars have relied on articulation of desire when evaluating the semiotics and non-verbal elements of online dating sites (Jones, 2009; Peterson, 2014); the analysis of what participants found trustworthy seemed relevant when investigating how students in online courses were making sense of instructional videos. Additionally, while this dissertation does not explicitly investigate the relationship between trustworthiness and learning, other scholars have investigated how trustworthiness and low social distance create environments conducive for learning, and that establishing trustworthiness is one way to reduce social distance (Buchan et al., 2002; Sung & Mayer, 2013).

I think it is also important in this context to raise questions around the ways in which knowledge is represented, and ways in which students trust this knowledge. Of course, the online instructional videos are embedded in a specific context: they are behind an institutional log-in, and therefore “verified” by “gatekeepers.” These videos are often part of a syllabus, an assignment, or required in relation to a participation grade. An analogy might be made between the videos and a textbook assigned in a course, where content is delivered by way of a prestigious journal or publisher, recommended through an instructor, and contextualized within a broader academic field. As discussed in Chapter III, one of the limitations of this study is that I did not focus on the content of the videos themselves. For instance, I did not conduct content analyses of the videos, or investigate how the videos aligned with syllabi or other broader programmatic learning objectives (a potential area for future research). So, while this chapter focuses on the ways in which students made meaning (such as interpreted) online instructional videos,

this meaning-making is not triangulated with the educational ideas and goals of the videos.

Presenters

“The speaker seems like an authority.”

–Excerpt from student interview

Throughout several of the interview talk-throughs, as participants verbalized what they were watching and their real-time sense-making, many discussed how a speaker seemed like an “authority” from their impressions. As one participant articulated, *“the speaker seems like an authority”*; another explained regarding another video, “[the speaker] *seemed like a trusted resource*”; still another said, “[the speaker] *definitely seems like an expert.*” When prompted to further explain why they believed the speaker was an expert, participants responded by addressing one (or both) dimensions: (a) the broader sociocultural context with which the speaker was associated; and (b) the multimodal resources found within the video (e.g., body language, or vocal delivery).

Social Context of Presenters

When discussing the trustworthiness of speakers in relation to their social contexts, students spoke of two reasons why they trusted a speaker: because of the presenter’s association with other people they trusted, or because of the organization or institution with which the speaker was connected. For instance, one participant explained: “[Guest speaker] seems like a trusted resource...I know [the instructor] is from that world and has

a broad professional network, and she will curate top people in their field.” In this example, the student explained the credibility she assigned the instructor, and that she knows the instructor is involved in “that world” (in this instance, the New York City advertising field). To offer some background, the participant was discussing a course in the Strategic Communications program. The instructor she refers to (“from that world”) has over 15 years of experience in the marketing and advertising business; previously, this instructor ran global marketing campaigns, and also worked for many years at well-known advertising agencies in New York City.

In this interview excerpt, the participant makes the assumption that the instructor arranged for this guest speaker to be in one of the course videos (which in this specific example, that was the case, although that is not always true; in other courses, the media team or the program director arrange for industry speakers to appear on camera). The student assumed the instructor invited the speaker to explain his professional experiences to the class, and knowing the instructor is “from that world” (implying she has industry knowledge and expertise), by association, the student trusted the speaker to also have expertise and industry knowledge. In other examples, participants conferred trustworthiness to speakers who were associated with other guest speakers (not just the faculty member). As one student mentioned, “I know he’s impressive because I met one of his colleagues before at a [face to face] residency who was also really good.” In this case, the student associated one of the speaker’s professional colleagues with him, and because he found the colleague to be “really good,” he described the speaker as “impressive,” strictly through social context and association. In their sense-making

processes, participants drew upon their previous experiences and knowledge which shaped how they approached their course videos.

Participants also conferred trustworthiness to speakers based on the institution to which they were connected. For example, in one interview a student explained, “I think he’s an authority because he’s the Chief Strategy Officer at Deutsch. I mean, Deutsche is a big-deal global agency.” The trustworthiness assigned to this speaker was not through proximity to the instructor, nor through his peers and colleagues, but rather through the respect and trust this student held with the speaker’s place of employment. The student was familiar with this company (Deutsch), and described it as a “big-deal” and “global” agency. Because of the speaker’s high-ranking position at this respected agency, the student described him as an “authority.”

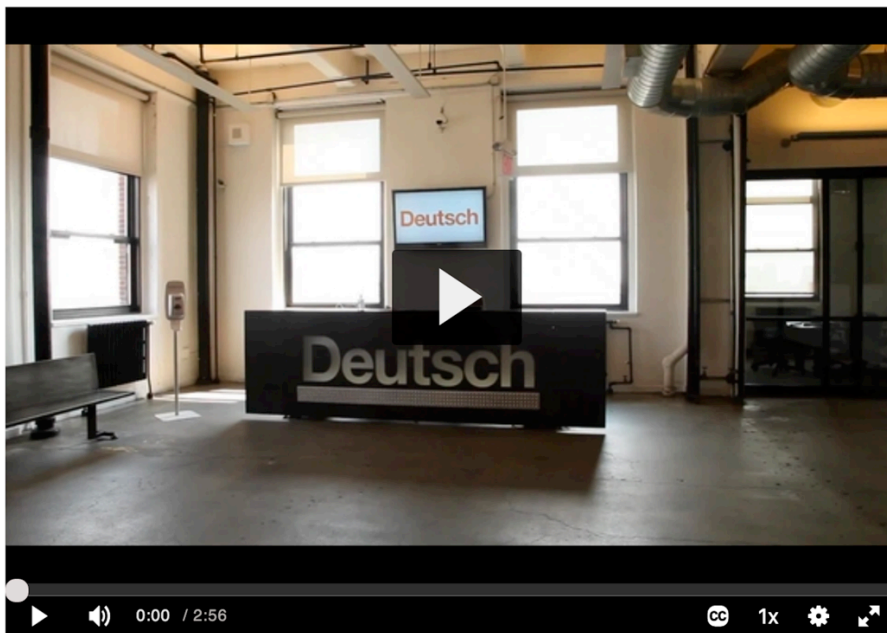


Figure 8. A screenshot from a guest speaker video; this speaker was evaluated as trustworthy due to his role and institutional affiliation with an advertising agency

Presenter Multimodalities

Participants evaluated speakers as trustworthy through their social contexts, but they also conferred authoritative status upon speakers through multimodal elements found in the speakers' on-camera delivery. In one talk-through of a video featuring a speaker, a student evaluated the presenter as "trusted," and when prompted to elaborate, she explained, "he speaks with authority and confidence." This echoed other interview talk-throughs conducted; rather than assigning trustworthiness related to the content delivered, participants spoke more about the manner in which the content was delivered—the posture, the body language, the tone of voice. As one student explained, "[the speaker] seems confident, conversational, and comfortable." In another interview, a participant said, "he seems legit, and speaks in a way that he knows what he's talking about." In these conversations, students' sense-making focused on the non-verbal aspects communicated through the videos—multimodal resources that they deemed as trustworthy. It should be stated that students had the contextual knowledge that these speakers are featured in videos, embedded within a top-tier institutional course setting, and so it is likely this context influenced their association with the personal qualities of "authority." It should also be noted that many of the videos featured speakers who were white and male, identities associated with power and authority (McIntosh, 2003). However, it is noteworthy that when asked to describe why a specific person seemed authoritative (outside of the social and contextual factors), students did not refer to the actual content delivered, (i.e., "the speaker is drawing from sound methodologies in the discipline"). Instead, they discussed the multimodal, nonverbal communicative resources found in the videos—i.e., the presenter's tone of voice, posture, etc.

The theme that students conferred greater trustworthiness towards speakers' qualities unrelated to the content delivered, coupled with the fact that many of the presenters were white and male, raises critical questions, particularly for designers. If users are more likely to be taken by qualities such as these, how can one design for students to approach these resources more critically? Or, how can designers create resources that might not embody certain qualities (such as, featuring a speaker who is a person of color)? If students are more attuned to the conduit of information (the medium and not the message), this carries implications for designers of learning environments who might want to problematize this, and encourage deeper critical thinking from students.

In the next section, I discuss further the meaning-making students assigned towards presenter deliveries.

Personalization

Mayer (2008) established the "personalization principle," which asserts that people perform better on individual outcome assessments when words in a multimedia presentation are delivered in a conversational style rather than a formal style. Effective tactics for creating a conversational style include using the first person rather than the third person (such as "you" or "I), as well as directly messaging the learner (Moreno & Mayer, 2004). This also relates to the "voice principle" (Mayer, 2008) which states that people learn more from material delivered by a person, rather than a robotic/artificial voice. While this study did not measure outcome assessments, the qualitative findings from student interviews echo the personalization principle. Students discussed, reflected,

and evaluated instructor videos that incorporated humor and informal language in positive terms. For example, consider this quote from a participant interview below:

The [specific course video] could have been better if the speakers seemed more comfortable. I think because they didn't feel comfortable on camera, the video didn't feel comfortable....it felt very stiff and formal. I think if it had felt more conversational, and they spoke more informally, it would have been better.

The selection from this interview is from a conversation about a video, featuring a faculty member interviewing a guest speaker, which a student evaluated as ineffective. When prompted to explain what could have made the video stronger, the student responded by describing the speakers as uncomfortable, and “stiff and formal.” While that might pertain more to the speakers’ non-verbal communication and body language, this student also mentioned the speakers’ language and manner of speaking. This student describes that if interactions had been more “conversational” and “informal,” the video would have been “better.”

Humor

The most engaging videos for me is when the professors use wit and humor...I've laughed through some of the videos. There's actually been some slightly witty, funny jokes about what we're learning, and I've actually laughed about them. I'm engaged, I'm reacting to them. Hands down, those are my favorite interviews. Because it keeps you interested. (Excerpt from student interview)

This is one example of how a student evaluates the use of humor in a video. The student self-reports that the “most engaging” videos are when the professor uses “wit and humor.” This participant explains her response to these videos: “I've actually laughed

about them.” She then further elaborates that her experiences with videos that incorporate humor are that she is “engaged” and “reacting to them,” and it keeps her “interested.” To reiterate, videos that the viewer considers humorous are what she also considers “the most engaging.” Humor is one method in which personalization can be created (Rourke et al., 2007), which may be particularly germane in online courses as a method for students to feel connections with their peers and instructors. As certain user experience scholars have argued, affective qualities (such as emotions and aesthetics) should be taken into account when considering the ways in which people encounter and experience web sites (McCarthy & Wright, 2004; Roto, 2011).



Figure 9. An example of an instructor telling a joke in an online course video, in a lecture related to finance

Institutional Branding

Throughout the talk-throughs conducted with interview participants, in which they watched videos in “real time” and discussed aloud their sense-making of these artifacts, one element that was often considered was the institutional branding present in the videos—this includes semiotic resources such as the institutional logo, the school’s colors, the opening title sequences, etc. These branding elements influenced the ways in which the participants viewed and made-meaning from these videos. In particular, the semiotic branding modes were generally talked about in a way that students assigned status to these elements, and evaluated them in such a way that contributed towards their trustworthiness of these artifacts. In this section, I examine interview selections from talk-throughs wherein institutional branding was discussed.

All of the videos that interview participants watched and discussed contained institutional branding, such as: a three-second title sequence that includes the institution’s colors, logo, as well as text stating the program, the School within the University, and the University [for example, “Strategic Communications, School of Professional Education, Manhattan University”]. If there was not an opening sequence, the videos had a watermark in the lower right-hand corner; the watermark is a small graphical element of the university’s logo, containing no text, and is just a symbol. This was not a purposeful selection, to have students watch institutionally branded videos; rather, all videos the media team produces for online courses contain institutional branding, as a matter of informal design policy.

While some of what students discussed in relation to the opening sequence could be considered constructive criticism (such as, “I would prefer to hear more sound in the

opening credits,” and “to me, the color [of the institution’s brand] seems kind of dark”), participants generally evaluated these branding elements in positive terms. Some interview excerpts include, “I’m definitely impressed with the [institution] graphics and background”; “I like that it’s clear it’s [institution] branding”; “I really appreciate that there is [institution] branding, I would be disappointed if it wasn’t there”; and “I like the [institution’s logo] watermark on the lower right-hand corner.” When asked to further elaborate why they liked it, or why they would be “disappointed if it wasn’t there,” students responded by explaining the gravitas of the logo, and its explicit connection with a top-tier university. For example, one student explained, “it makes it seem more legitimate.” Another student said, “The [institution] logo sets the stage for what you’re about to see. It sets the expectation that what you’re going to see is high-quality, it’s academic.”

The branded sequences involve a multimodal orchestration of colors, font, movement, and symbols; the reception of these semiotic resources is such that it’s associated with the higher education institution. The respondents applied a further layer of meaning when this branding is connected with video artifacts; they explained how this semiotic layer confers legitimacy, or “sets the stage” that the content will be “high-quality.” These branded multimodal elements, I argue, contribute to the sense-making students assign to the online videos and shape their viewing experiences, and suggest that they influence the ways in which participants evaluate their trustworthiness.

Production Values

If I see that it's not high quality, it makes me more suspicious of it honestly.

I feel like it's not going to be as informative and I'd be less likely to watch them.

—Excerpt from student interview

While discussing videos with participants, I spoke with many about the aspect of production values in videos. “Production values” is an all-encompassing term that refers to the look, feel, and general quality of a video. A simplistic definition is that “amateur production values” would be a video created with amateur tools and techniques, such as shaky hand-held camerawork, poor framing of a subject, or distorted audio; “professional production values” might include a studio setting with backdrops and lighting, shot on a tripod, using mixed audio from a microphone. The media created for the online courses by the in-house production team would generally be described as “professional,” (employing professional camerawork, lighting, sound, post-production, etc.); however, there is media in some of the courses that is “amateur,” such as screen-captured videos the instructors created themselves.



Figure 10. A screenshot from a video that could be considered having “high” production values; this was a three-camera shoot, produced in a studio with professional lighting and audio

While talking with participants, many spoke of how they viewed something with high production values as more trustworthy; they assigned meaning to the multimodal design elements of videos related to the “professionalism,” i.e., the camerawork, the lighting, the general look-and-feel. As one student explained, “If I see that it’s not high quality, it makes me more suspicious of it honestly. I feel like it’s not going to be as informative and I’d be less likely to watch them.” This student explains her perspective that “high quality” correlates more with “informative”; and the videos that are not as high of quality, she evaluates as “more suspicious.”

Another student discussed his assessment of the videos that he watched in his online courses:

They're definitely well produced. You can tell they're done professionally. Like, the speaker is lit well. The microphone levels are balanced. They're getting videoed in a nice space. They're definitely professionally done and I can tell. You can tell there are resources, there are university resources spent on ensuring that the videos are of high quality.... I'm more likely to tune into something that has like, a title card and then a wipe to the actual lecturer, versus 'here's doctor so-and-so' in a fluorescent room and there's a camera in the back of the classroom and there's a lot of ambient room noise. Whereas you get a more polished video with a little bit of intro and a little bit of intro music and it fades, it just makes it more, it makes it a more enjoyable experience.

This participant speaks to the multimodal design elements in the videos related to production values—"the speaker is lit well. The microphone levels are balanced. They're getting videoed in a nice space"—and assigns meaning to them, describing the video as, "they're definitely professionally done and I can tell." The student further deduces that because the production values are "professionally done," this implies the university has dedicated resources towards producing these media pieces. The interviewer then contrasts this type of video with a lower-quality video, hypothetically in a "fluorescent room" setting, with poor camerawork ("there's a camera in the back of the classroom") and poor audio ("a lot of ambient room noise"). The participant considers the distinctions between the two videos—the high quality video and the hypothetical low quality video—and evaluates the differences between the two viewing experiences. He describes the higher quality video as more "more enjoyable" and "more legitimate." He explains he would confer greater trust in the higher quality video.

The participants I spoke with assigned meaning and value to the multimodal design elements of online course videos in relation to the production values; they talked about the semiotic modes found in these artifacts, such as the lighting, audio, and background elements. They discussed how they interpreted these modes to be of either "high quality"

or “low quality” production value; and in many of the conversations, students expressed how they awarded greater trust in videos with higher quality production values.

Summary

Considering the context of the education space, it is a different sociocultural location than an online retailer or social networking space. There is a broader institutional context, reputation, ranking, etc. that influences and shapes the way a user approaches these web pages. Within this broader institutional space and context, however, participants spoke about why they trusted certain resources (and why they trusted certain videos).

When considering the student reception of multimodal artifacts, the trustworthiness they conferred to speakers (both guest speakers and faculty presenters) could be considered through a few dimensions: the social proximity of the speakers to other people they trusted (such as their colleagues, or faculty members); and the association of a speaker with a trusted organization and institution (and their job title or ranking within that organization).

Participants also assigned trustworthiness based on multimodal attributes—this includes the presentation attributes of speakers (their tone of voice, their manner of speaking); the semiotic institutional branding contained in the title sequences or videos player; and the production values (lighting, background, etc.) found within the video. There are many future research possibilities related to trustworthiness in the online learning space, such as: how students view trustworthiness in relation to their learning and retention; how designers can engineer “trust” mechanics in online learning websites;

and deeper explorations into how semiotic modes influence people's perceptions of trustworthiness.

Chapter VI

RECOUNTING: BLURRED EXPERIENCES

Wait, I'm getting confused between Powerpoint slides and videos.
- Interview participant

This chapter will explore one of the thematic findings of this research project, which I identify as “Blurred Experiences.” This term refers to the ways in which students in online courses perceive and describe instructional videos in relation to their learning: more specifically, how the ways in which they describe their meaning-making experiences with instructional videos *blurs* with other components of the course, such as PowerPoint presentations, webinar sessions, graphical elements of course web pages, and other multimodal artifacts. The focus of my research questions: *How do students make sense of their learning experiences from videos, in an online environment?*, foregrounds instructional videos as multimodal, educational artifacts from which learners make meaning; and asks how the video artifacts are interpreted and analyzed by students. I believe this an important question to ask, as not enough is known about the ways in which instructional videos are taken up by students; and investigating this question has significance for designers of online educational spaces.

However, a key theme that I found in the data is that in their meaning-making process, particularly while recounting their experiences with online videos, students often *did not* perceive online instructional videos as disparate, separate elements of their learning experience. Rather, the videos blurred with other educational experiences. In this chapter, I select and discuss salient excerpts from data to highlight and support this idea; I first explain what I mean by “blurred experiences,” and then give examples of the various gradations of blur, drawing from student interviews. I then discuss blur that occurs within the webpages in which instructional videos are embedded, drawing primarily upon data from interview talk-throughs. I conclude by building the argument, a central theme of this dissertation study, which is that students have agency over their meaning-making process and their perceptions of online instructional videos may not align with designers’ intentions.

A pattern that emerged in the constant-comparative analysis—a coding process guided by the six processes of sense-making (anticipating, connecting, interpreting, reflecting, appropriating, recounting) devised by McCarthy and Wright (2004)—is that talking about “videos” did not always mean talking about “videos.” While there are many limitations to addressing individual sense-making processes, during participants’ discussions about their experiences with online videos their reflections at times focused on other elements. For example, students talked about other elements in the online course pathway (such as a webinar session, which features live presentations through the web conferencing tool Adobe Connect); or as they discussed “videos,” they may have mentioned a video, but in the same sentence discussed a presentation that occurred during one of the in-person residency sessions. My position as a senior media producer and

member of the online course production team situated me in a unique role for this research project, as I have a degree of tacit knowledge about the online courses/programs about which participants discussed, and this “insider” experience or emic perspective helped me more clearly identify the content that students referenced (or mistakenly referenced). However, there were moments when participants explicitly expressed their misperceptions as in the quote above which introduces this chapter, such as one participant: “Wait, I’m getting confused between Powerpoint slides and videos.”

When a pattern emerged that talking about “videos” did not always mean talking about “videos,” I created a code for “blurred experiences,” a heuristic that references Clifford Geertz’s (1980) “blurred genres.” Geertz explains “genre mixing” occurring in social sciences and the genre-bending frameworks social scientists applied to their analyses. “It is not that we no longer have conventions of interpretation; we have more than ever, built—often enough jerry-built—to accommodate a situation at once fluid, plural, uncentered, and ineradicably untidy” (p. 166). In alluding to Geertz’s idea of “blurred genres,” to which he was writing about reshaping social sciences, I applied the term “blurred experiences” to instances when the boundaries of student experiences with online instructional videos were “fluid, plural, uncentered, untidy.” This included moments when students, via interviews, were discussing the role of online videos in relation to their learning experiences and blended them with other course elements; or, when conducting talk-throughs with participants (where they watched an online instructional video and discussed the video in “real time”), their interpretation of the videos focused on other components.

To be clear: it is no surprise that instructional videos are considered in context with other experiences of the course (such as the instructor, or how the videos align with the instructional design of the course such as the learning objectives or assignments). The instructional videos are situated in context (on a page, within a unit, within a course, folded under a program, which is part of a larger university); and that learners access the content within a specific context (such as on a laptop, while commuting by train in the morning). However, my intentionality as a researcher was such that I aimed to focus on a discrete element within a broader context—instructional videos—while taking into account the learning environment—yet the extent to which the experiences with instructional videos were *blurred*, and were not talked about as singular items by participants—this was an unanticipated outcome. It underscores the importance of considering how instructional videos in an online environment are part of a larger course ecosystem, and the multiplicity of experiences within a singular course.

I would also like to provide additional context related to the online courses in which the participants were involved, to offer a deeper backdrop and understanding to the students' sense-making of these particular online courses, and also how it might relate to their blurred experiences. All of the participants interviewed were enrolled in one of two master's programs (either in technology management or strategic communications). While the programs allow for full-time enrollment, all of the students interviewed in this study were part-time. These two programs have specific enrollment and graduation requirements, including that programs are fall-intake only; 36 points are required for degree completion; and students are expected to graduate in 16 months.

All of the courses in these programs are online (drawing from the Babson Survey Research Group definition of “online,” where 80% or more of course activities take place digitally). However, these two programs are also “blended” to a certain extent where they also include in-person residencies, which occur on campus in the New York City area; these face-to-face sessions have required attendance and generally span a 9-5 timeframe (with evening events as well). The two programs structure their face-to-face residencies in different ways (e.g., one holds 4-day blocks, the other primarily has Saturday sessions), yet both have 20 in-person full days included in their full program. This allows for in-person interaction between students, faculty members, and guest speakers.

All of the 3-credit courses in both programs (because there are 1.5 credit courses as well) have weekly, synchronous Adobe Connect sessions that generally span 60-90 minutes. These are real-time webinars where students connect virtually every week for faculty presentations, student presentations, guest speakers, and other activities. As a comment about the pedagogy of the curricula, from my personal view working in the administration involved in these courses—the design of the face-to-face residencies, the Adobe Connect webinars, and the instructional media embedded in the online course pages—is generally “traditional.” That is, all three platforms primarily include a number of presentations, specifically talking-head presentations accompanied with PowerPoint slide decks. This includes presentations by faculty, by guest speakers, and by other students. Of course, there are allowances for question-and-answer (in the webinars as well as the residencies); and there are other course activities as well (e.g. the face-to-face residencies emphasize networking opportunities). Yet, the similarities of these cross-

platform experiences—taking in presentation content from online videos, from online webinars, and from face-to-face residencies—might contribute towards the blurring.

Blurring with Course Elements

The following section includes excerpts from interviews that highlight the ways instructional videos—and the ways in which students perceived and made meaning from these videos in relation to their learning—were *blurred* with other course elements. This blurring occurred on various gradations. On one end of the spectrum, participants were specifically asked to discuss their experiences with videos, and they would talk about an experience that was not related to the videos at all, and instead would explain an occurrence with a different course-related event. Below is one such instance from a participant, a student in the Technology Management program, in response to a question about course videos:

I mean, overall it was pretty good. And it was sort of interesting. There's someone who works specifically to help out and troubleshoot. And that person was really great because if there was any sort of challenge from the professor's end or the student's end, it kind of helped move them along.

The participant in this case was clearly referencing an Adobe Connect session (a synchronous webinar that occurs weekly for most courses), as he was referring to one of the webinar specialists on the internal team who assists with technology and the structure of these online meetings. These conferences incorporate many media elements, such as PowerPoint presentations, web camera discussions, and video; they also include social and interactive features such as polling, chats, and breakout rooms (webinar “rooms” for

small groups). While it is unknown why a question about videos prompted the participant to respond by talking about a webinar, there are several possible reasons. A few reasons might include: webinars sometimes include video clips that the instructor uses while presenting; the webinars are recorded and then saved as video files as a resource for students to access, so these occurrences could be considered videos as well as live events; or the user experience (UX) with technology is similar as far as clicking, wearing headphones, and watching a smaller “presentation” screen. This is one example that I selected to highlight this phenomenon, although there were other instances where a participant talking about “videos” was in fact talking about something that was not a course video.

Methodologically, while conducting the interviews I made the assumption that participants knew what I meant by “video,” and so I did not define this term. However, when the participant responded by discussing topics other than videos, I would offer clarification and ask the question again, by referring to specific course videos found in their program (i.e., “now let’s discuss the videos found in your site, such as the strategic communications lecture video about soda marketing campaigns”). Communication misunderstandings or language differences are an inherent limitation of interviews; yet I would argue this recurrent theme of blurred experiences does not solely emerge from methodological constraints. There are examples of participants responding to the question about course videos by discussing a topic (such as a webinar) that is not a course video; there are also examples of participants discussing course videos, yet mid-conversation voicing their confusion (i.e., “wait, I’m getting confused between Powerpoint slides and videos”). Below are additional examples supporting the idea of *blur*, in which students’

meaning-making experiences with online instructional videos blurred with other course elements.

Blurred Contours of Videos

There were moments when participants responded to a question related to his or her experiences with course videos, and replied by talking about something that was not a course video (i.e., a course webinar). However, more typically, a respondent would discuss “videos,” but the contours and boundaries of “videos” were blurred and porous. As they discussed their experiences with videos, they referenced many other course elements in the same thought (or the same sentence). This data slice illustrates how one participant discussed videos produced for one course in his Technology Management program:

And she [the instructor] did all kinds of things, she did the prepared videos that were videoed in your studio, and those were fine, and she did some kind of ad-hoc ones at home, based wherever she was. And there were the WebX sessions which she did when we needed it, and she recorded those and posted those as well.

In this instance, the participant explained videos produced by one faculty member in one of his courses. (It should be noted that I use the terms “faculty” and “instructor” interchangeably, as these are the terms the online team and broader institution also use; however, these are not tenured or tenure-track faculty, at least related to their professional affiliation with this higher education institution). In this case, the participant describes an example when the instructional videos were helpful to him while learning the course material (specifically, financial math concepts). As he discusses the videos, his

explanation shifts towards the effectiveness of the instructor, and how she filled in gaps for students who were having difficulty understanding the material. First the participant references how the instructor “did the prepared videos that were videoed in your studio”—the student alludes to content-lecture videos created by the online production team. These were unit overview videos, approximately 5-15 minutes long, where the faculty member explained core concepts and illustrated how to work through math formulas. The videos were recorded in a broadcast studio with professional lighting, audio, and camerawork, although the production values could be considered as relatively basic with “talking head” visuals and solid black or white backdrops.

This participant first describes “the prepared videos that were videoed in your studio,” and then explains, “and she did some kind of ad-hoc ones at home.” In that instance, the participant is referring to a series of screen-recorded videos the instructor produced on her own computer, using the screen-capture software Camtasia. The instructor created these videos as supplemental resources for her students, and they were generated as a response to the perceived need that students required additional lecture content and exposition. These videos could be described as “lo-fi,” with visuals of powerpoint slides, audio recorded from the built-in microphone of the computer, and run times of approximately 45-60 minutes.

The third element the participant mentions, “there were the WebX sessions which she did when we needed it, and she recorded those and posted those as well”—in this case, the participant is talking about live webinar sessions, which the instructor held outside of regularly scheduled class times as optional question-and-answer sessions for students looking for additional academic assistance. (These sessions occurred outside of

the institutionally supported Adobe Connect webinars, so did not include a technical staff member on hand to assist with facilitation.) These webinars were recorded by the faculty member, and then posted as video files on the online course site for students to watch, rewatch, download, etc. An added layer to this discussion is that while the participant is referencing the course “videos,” and how they assisted him with learning, a dimension to this conversation is that the instructor put in substantial efforts to help students understand the material. The faculty member produced additional screen-recorded lectures, and held optional webinar sessions (which were also recorded as video files)—this was added content created outside of the designated scope of the course, and arose in order to address students’ comprehension difficulties.

This data slice is an illustration of the blurriness for students between instructional videos and other elements of the course. The intent and focus of this research project is on the student experiences with the instructional videos produced by the online course designers—in this instance, “the prepared videos that were videoed in your studio”—yet students’ perceptions of online videos as it relates to their sense-making, in relation to their learning experiences and recounting of these experiences, is that the videos are inextricably linked to other elements—such as webinars, or “ad hoc” screen-captured videos, or other materials created to supplement their comprehension, not to mention their relationship with the faculty member.

Another example of “blurred experiences” is that even when specifically discussing online instructional videos (such as “the prepared videos that were videoed in your studio”), many features were described in such a way that elements blended together, or they were described in tandem with other experiences (e.g., in-person residencies,

webinar sessions, etc). For example, below is an excerpt from an interview where a student explained how the online instructional videos helped her learning “stick,” and I asked her to elaborate or to give an example of a video that helped her learning “stick.” (This was an interview with a student from the Strategic Communications program.) She responded:

I don't think it's one thing. Everything from class—from when we were in class in person—to going to the platform, watching the video. And the visuals they used in the class and in the videos—they weren't repeated but it was more like a class or in the video, behind them there's some kind of a presentation like a PowerPoint presentation to go along with it. Very simple. I would say there are very simple graphics and not a lot of information on the PowerPoint presentations themselves. But because they were talking about it and you could watch them, that just reinforced the information. There was something visual to remember, there was some information and then there was a lecture along with it. The combination of that just made the learning really effective, at least for me. Versus just going and reading and reading pages of black and white words. The difference for me was very profound.

The participant positively evaluates the online course videos, and explains these resources in relation to her learning as being “very effective” and the difference (in contrast to reading) as “very profound.” However, it is challenging to parse through what exactly is referenced as a *video* in this conversation slice. There are many elements of video that are discussed, such as the graphics, the instructor's lecture, and the PowerPoint slides; these visuals seemed to contribute with this students' self-described learning as it helped “reinforce the information” and it assisted her “to remember.” Yet in these descriptors about videos, she combines them with other course experiences—the videos blur with the in-person residency sessions and the online webinars (“the visuals they used in the class”). As she begins, “when they're talking about something either live, in class or in the video...”—it seems that these experiences run together in her recollection, and

the edges dissolve between one event and another. An apt way to summarize this participants' experience with video and her learning is from her first sentence: "I don't think it's one thing."

Just as the research question, *how do students make sense of their learning experiences from videos, in an online environment?*, leads to a theme that students' learning experiences with videos are *blurred* with other course elements, this thematic finding echoes in relation to my second research question, *how do students engage with design elements of instructional videos in the process of meaning-making?* In students' perceptions and recountings of online instructional videos, videos were not often discussed as discrete elements within a course; similarly, the perceptions and sense-making of modes and design elements of course instructional videos was also blurred. My intentionality as a researcher with this question was to investigate how students were perceiving, learning, and making meaning from modes within videos—what design elements did they view as salient? What did they talk about, both in reflective interviews, and during talk-throughs while watching videos in-person while I observed? How did they integrate modes in their sense-making? For instance, would certain font choices or graphics resonate with participants, or would the relationships between certain modes be emphasized? Throughout the interviews I conducted, the modes surrounding the embedded context of the video (such as the features of the player, or the website) were foregrounded in the discussion; and just as there were difficulties distinguishing instructional videos from other course experiences, there were difficulties distinguishing between modes *contained* in a video with modes *surrounding* the video. The section

below discusses the ways in which student experiences with instructional videos blurred with the surrounding online context in which they were embedded.

Blurred Web Pages

In this section, I select salient data slices that highlight the ways in which student experiences with videos blurred with other design elements—such as the web page, or the video player. For example, below is an excerpt from one interview where a participant watched a video and completed a talk-through (where he watched a video in the course of his interview, and discussed his reactions). In this instance, the participant watched a video that he had not seen beforehand, as it was a video from another academic program. This video was embedded in a similar but slightly different video player than he was accustomed to. (A video player is the “skin” in which a video asset is embedded; it includes features such as the pixel size, the color, watermarks, closed captioning, playback speed, bandwidth rate, and so forth.) Below is an image of a screenshot taken from the talk-through portion of the interview I conducted with this student from a technology management program.

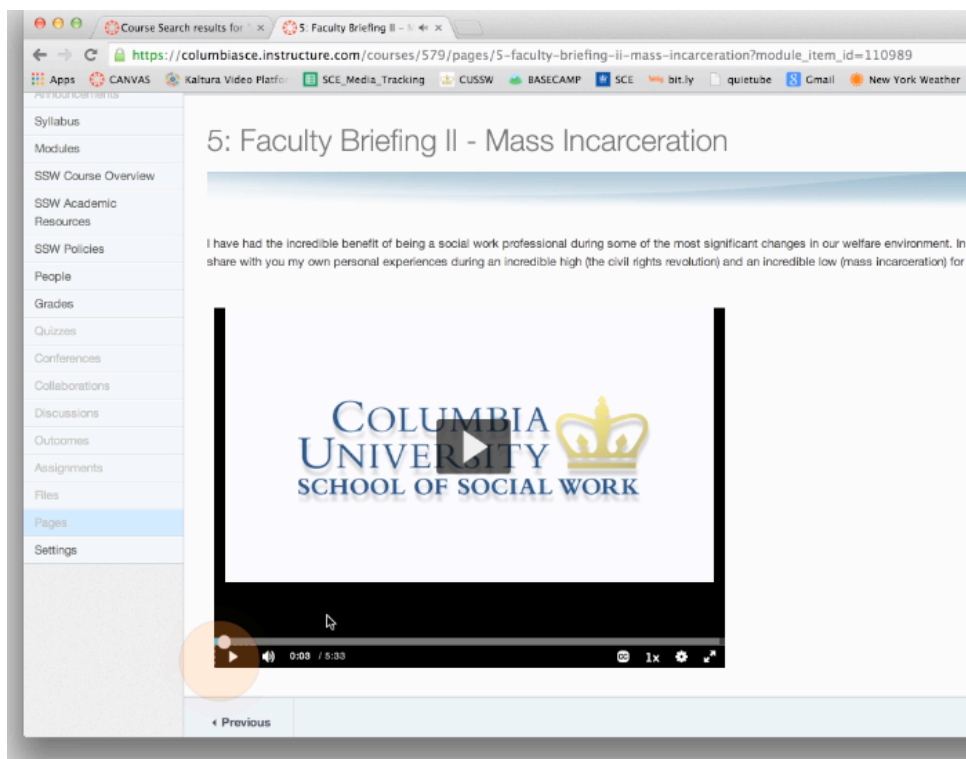


Figure 11. Screenshot from a recorded participant “talk through,” from interview excerpt below

The participant explained:

I can see that it’s captioned. Now I was a little disoriented at the beginning with this blank space, although it was really just at the beginning. So, this blank space here, I was like: wait, why is this here? And then when the professor started talking I knew that it was because you had captioned the video. I understand wanting to lead with captioning first, but maybe a toggle would be good at some point. But then again I don’t know if there are specific ADA [American Disabilities Act] compliance rules where you have to have captions by default.

This participant, rather than leading with a discussion of the semiotic resources found within this instructional video—such as the branded introduction, the music, or the appearance of the professor—discusses the elements that are characteristic of the player in his process of “real-time” sense-making (connecting, interpreting, and reflecting). This

includes his interpretation of the black space where closed captioning transcription appears; his user-design suggestions (such as a button to turn it off, or to default with no captions); his thinking-aloud considerations of broader institutional policies, such as legal requirements. This theme emerged in other interviews, where participants' sense-making related to design elements focused on surrounding modes, such as whether the video allowed for full-screen playback, if the player had an auto-play feature, the thumbnail image of the video, if the download feature was available, and so on. The blending of features both within and surrounding the videos—and the extent to which the web pages and player features were foregrounded—was an unanticipated theme.

The figures below are screenshots from a talk-through interview with a participant who also focused much of his “think aloud” on surrounding modal elements and design features included in the video player. This includes the ability to scrub through the video and see a miniature “preview” of the video timeline (Figure 12) and the ability to change the bandwidth of the streaming settings (Figure 13).

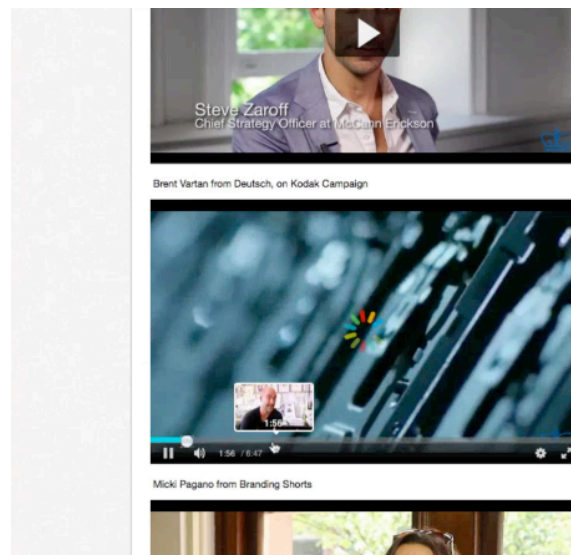


Figure 12. Screenshot from discussion related to the scrub tool (the miniature white hand on the timeline of the video)

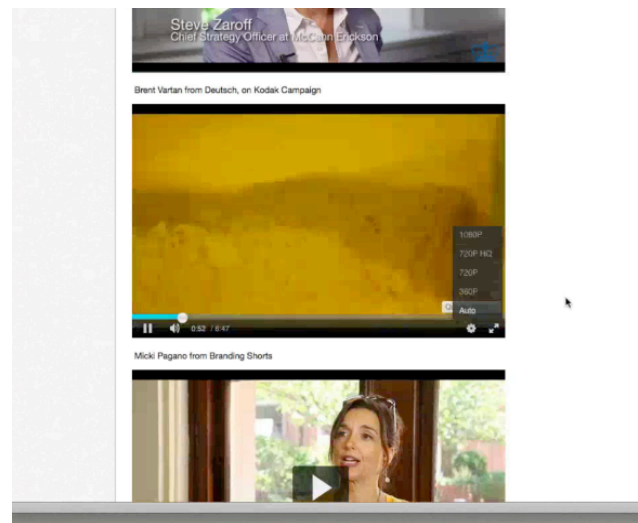


Figure 13. Screenshot from discussion related to the streaming settings

Summary

The online instructional videos that participants discussed—and the ways in which they engaged, perceived, interacted, and reflected on these semiotic artifacts—*blurred* with other factors in their course experiences (such as PowerPoint presentations at in-person residencies, webinar sessions, or the video player or web page in which the videos were embedded). There are implications for these blurred experiences, particularly design implications for content producers and designers creating educational experiences in online environments.

Holsanova (2014) argues there is a dearth in the multimodality literature around the reception of multimodal artifacts by users, and that the primary approaches of multimodality (e.g. social semiotic multimodal analysis, a systemic functional approach, and multimodal interactional analysis) often focus on production—on the meaning-

making affordances of multimodal text creation, through orchestration (Kress & van Leeuwen, 2001) or braiding (Mitchell, 2004). In examining user's sense-making of multimodal artifacts, an emerging theme of these interviews suggests their experiences are muddied, and blurred, and the compositions of these semiotic resources (online instructional videos) are not always distinguishable from other artifacts (PowerPoint slides from an in-person presentation), events (synchronous webinar sessions), or the embedded context (the features of the video player).

One interpretation is that students make meaning from similar avenues of user experience, i.e., watching a PowerPoint presentation while listening to an instructor lecture is a similar occurrence whether this occurs via watching an online video, or watching it as an in-person event. Similarly, listening to a faculty member deliver information (while watching a slide deck presentation) through a real-time webinar is also *blurred* with the experience of watching an online video. Another implication is that students' sense-making of the online videos is very much married with where the videos are *in situ*; the elements of the video player, for instance, are discussed in the same ways the modes within the video (i.e., animation, production values, etc.) are discussed.

What students talk about when they talk about video is that online instructional videos produced for the course are not always perceived as separate artifacts from other course elements. Student experiences with online videos are influenced very much by their contexts, including student approaches to the video and the sites in which the videos are embedded. These findings suggest that students have significant agency, and the ways in which they take up, interpret, and make meaning from online videos may be different than the intentions of the designers of these artifacts. In the following conclusion chapter,

I argue that it is valid to take blurring seriously, and that this phenomena has implications for the design of online learning environments.

Chapter VII

CONCLUSIONS AND IMPLICATIONS

To conclude this dissertation study, I first return to the problem statement that I outlined in the Introduction. I explore the ways this dissertation addressed the questions I raised, and aim to recontextualize where this research fits in, particularly in the field of online education. I argue for findings of this study, supported by the data chapters. I then explain the implications for this dissertation research—including implications for theory and implications for designers. I discuss areas for future research, and conclude with final thoughts.

In Chapter I, I argued that not enough is known about the ways in which students experience online instructional environments, as well as how they are interpreting, engaging with, and perceiving online instructional videos. My research questions include: *How do students make sense of their learning experiences from videos, in an online environment?*, and *how do students engage with various modes and design elements of instructional videos in their process of meaning-making?* In addition to these questions, I set out to investigate how students (in this specific context, graduate students in online master's degree programs) are making sense of online instructional videos, and also asked: where and when are they watching their course videos? How do they reflect on

their learning, and self-report how they have applied their learning? What modes and design elements and resources do they discuss? What are students actually *doing* in online courses, with a particular focus on their interactions with instructional videos?

Through a qualitative research study, drawing upon semi-structured interviews and screen-captured talk-through interviews, I collected data from 14 participants enrolled in online master's degree programs. I analyzed this data using iterative constant-comparative methods, keeping in mind a conceptual framework of user experience and multimodality, as well as drawing upon a framework of meaning-making developed by McCarthy and Wright (2004).

The overarching thematic finding of this dissertation suggests that students have significant agency in these online environments, and their meaning-making of online videos may not align with designers' intentions. I support this narrative through three thematic chapters, which I have titled *Anticipating: Professional Selves*, *Interpreting: Trustworthiness*, and *Recounting: Blurred Experiences*. Below, I discuss the findings of this study in more detail.

Findings

The nature of this inquiry is to consider the ways in which people experience online videos, specifically in learning contexts (and even more specifically, in online graduate school programs). Yet to take a broader view—to use video production parlance, to zoom out for a wide shot—in a broad sense, this study aims to consider the ways in which people experience technology. How are people experiencing online learning websites? How are they experiencing online courses, mainly in the form of

websites, that include a wide array of content—images, PDFs, text, video—and a host of interactive features, ranging from webpage navigation to the ability to click on a video to press play? Technology—in particular the Internet—is still so new, and in many ways we are just making sense of it all.

To quote the MIT researcher Sherry Turkle (1995), “We have used our relationships with technology to reflect on the human” (p. 24). To extrapolate on that, this dissertation suggests there is a blurred, multi-spatial nature to the ways in which we experience technology (and potentially, there is a blurred, multi-spatial nature to the ways in which we make sense of our life experiences). For one thing, our use of technology—and the ways in which we make sense of it—is embedded in the physical world (such as where we watch an online video, and on what device); and in sociocultural contexts (such as approaching an online instructional video as one would approach a face-to-face lecture, drawing upon earlier meaning-making experiences, by preparing a pen and paper in order to take notes; or taking into account one’s previous relationship with the faculty member featured in a video). The focus on task-oriented usability in user experience (Gould & Lewis, 1985; Hornbaek, 2010) often neglects these dimensions, as functionality (such as successful navigation through a web page) is only one aspect of how we interact with technology.

Returning to the question as to how students are meaning-making (including anticipating, interpreting, and recounting) in relation to online instructional videos, one finding of this study is that students do *not* necessarily experience course videos as discrete elements. That is, their meaning-making of instructional videos *blurs* with other experiences in a course (such as other online and offline experiences; or additional

contextual design elements on a web page, such as video playback features). This blurred meaning-making was expressed both during interviews in which participants recounted their experiences with online videos; as well as during real-time observational talk-throughs, as students interpreted their navigation and viewing of online course webpages and videos. This blurring theme became codified in the analysis, and suggests that users have a lot of agency over their meaning-making experiences.

Norman (2002) has made the case that customization, personalization, and personification make all users “designers”; he has also argued against the term “user” because it implies someone who can only make use of what is given to them. While the findings from this study are not quite to that degree (making the case that all users are designers), it does make the case that students (or users) are co-constructing their experiences with design; their previous experiences, physical contexts, and so forth shape and orient their meaning-making. This is not a new finding; for instance, DeCerteau (1998) created a framework for the ways in which consumers make use of physical spaces and products. People create their own pathways in grocery stores, not necessarily following the advertisements and architectures designed to create their shopping behaviors. Consumers are not just passive. Yet, this has been neglected in recent contexts, and the findings from this study go against deterministic positions in both the fields of UX and multimodality.

By combining UX and multimodality, I argue that this framework has offered a broader scope of how to consider the ways in which people experience technology, in particular online spaces. It takes into consideration a wide range of experiences with technology, including usability and navigation; UX also includes more affective qualities

such as emotions and aesthetics. Multimodality offers a way to consider how people make meaning from modal resources, such as non-verbal elements (particularly salient for digital spaces and online video). There are exceptions to these generalizations, but to simplify, the field of UX is biased towards the user (Bødker, 2006; Connolly et al., 2008; Hornbaek, 2010; Shackel, 1990). On the other hand, multimodality has often been taken up with perspectives towards the designer (Holsanova, 2014; Hull & Nelson, 2005; Ranker, 2009). The combination of multimodal UX takes seriously the design of online spaces, and how they are *taken up* by users, with considerations and implications for both the users and designers.

Considering the contexts in which students engaged with instructional videos, another finding from this study is that the ways in which people orient themselves towards viewing instructional videos shapes their meaning-making. This includes where they find themselves located, and the ways in which they are able to engage. The times and physical places in which students view instructional videos shifts (such as between home, commuting, and work lunch breaks). In addition, student motivations and expectations influence how they approach watching online course videos.

I situate this dissertation research in relation to the growing field of online education, which has been a quickly expanding field in all education sectors especially higher education (Babson Survey Group, 2014). These rapid changes in the education space bring about an increased urgency to better understand online learning environments, student experiences in online environments, and the impact of various design decisions on student learning experiences. This research aims to contribute

towards a better understanding of online educational spaces, and the ways in which students are engaging with online courses.

Users = Students = Consumers (?)

Framing students as “users” and drawing from user experience theories and literatures proved to be a constructive way to investigate the ways in which students experience online courses. Yet, the field of user experience primarily positions “users” as consumers, an aspect I would like to return to. Although the intentionality behind this research study was not to equate students with consumers, or an online course with a product—it is worth considering *why* UX is a fruitful theory in relation to studying student experiences online. Of course, UX is a field that considers the ways in which people interact with technology, and therefore is a productive way to talk about online learning and online course experiences. Yet, might there be something else happening, especially given this context (professional, graduate master’s degree programs, with pricey tuition costs and tacit expectations to receive a return on one’s investment)? Might this reflect on undercurrents that students increasingly view themselves as consumers, who have expectations with facets such as ROI and customer satisfaction (Cuthbert, 2010)? This study does have a subtext related to the field of online education particularly in higher education (or at least, raises questions for future research and exploration): that an institution is a brand (in the same ways in which consumer brands carry semiotic meanings, such as luxury or reliability); that a course (and course content) is a product; and that customer satisfaction is expected (i.e., the ability to access online course sites from any device, anywhere).

In many ways, the educational technology field has positioned the education field as a “market,” with actors in the field (teachers, universities, students, and so on) as potential consumers. Online learning programs are frequently situated as a way for institutions to make money, such as through expanding enrollments (both nationally and internationally). In my professional context at this higher education institution, generating revenue was an explicit aspect of our mission; additionally, master’s programs were often developed to respond to needs in the market (rather than solely engendered from academic or research fields). The experiment of MOOCs (massive open online courses) originally brought much hope and excitement around issues such as access and affordability in education (one example is the 2012 article “The Year of the MOOC” in *The New York Times*). Yet, primarily MOOCs are now considered a marketing tool—a platform for an institution to increase and enhance its brand and reputation, and to reach potential future students.

This is not to offer a blanket value judgment condemning market factors or motivations in higher education, or to dismiss the benefits to students that can arise from “customer satisfaction” orientations. Rather, I aim to raise questions around this consumer equivalency, which in many ways has become steeped in the educational technology field, including the online education space. The educational technology market has much to learn from the educational research field, and the colossal body of research and knowledge that has been generated around how people learn.

The development of online education offers a platform to reassess assumptions related to education (such as the idea that lectures are an effective method to deliver

content)—but also to reconsider the ways in which students (or “users”) are positioned in higher education.

Implications for Design and Pedagogy

These emerging findings have design implications, even though one of the overarching themes of this study is that users have agency in their meaning-making, and offers a critique of the idea that “experience” *can be* designed. So, even though these two contentions may seem to be contradictory or in opposition to each other, I believe they are *not* mutually exclusive; design values and practices can exist with the acknowledgement that users have agency over their meaning-making and experiences. In addition, I recognize that some of these design implications are tailored towards “improving” the user experience for students in online courses; and this itself carries certain assumptions. (For example—and this is not a design implication I propose, but it is similar in nature—creating videos that are shorter in length, because those are the types of videos students self-report as preferential and these are the types of videos that receive the most views and play-through rates; yet, it is unknown if shorter videos improve learning outcomes, or correlate to students’ personal learning goals, etc.)

Students’ “blurred experiences” with online video highlights the need for designers to consider instructional video holistically within the design of learning environments, rather than as discrete elements that are incorporated after the design has been finalized. One implication is that instructional videos should be fully integrated into all elements of an educational experience—that is, designing instructional videos while considering what occurs in other aspects of instruction such as face-to-face residencies, webinar sessions,

and how the videos relate to broader instructional goals. If students are not experiencing instructional videos as discrete content items, then a design implication is that instructional videos should not be considered (while designed and produced) as discrete content items either. As a side note from my professional role in this research context, although the development team aims for an integrated instructional design plan, we are segmented into different areas—webinar team, media team, technology team, and instructional design team—and often are not synchronized.

This “blurring” also has implications for the field of educational technology, where apps, devices, and tools are often designed, sold, and pitched as discrete items. That is, the rich contexts in which these learning technologies are taken up are not considered—the instructors, the students, the curriculum, and so forth. The positioning of tools as unconnected to broader environments has real implications. Consider the \$1.3 billion taxpayer-funded iPad deployment in L.A. county schools (widely considered a failure) as one example (Lapowsky, 2015). While there are many interpretations of what went wrong in that instance, the iPads were described and sold as interactive textbooks and learning tools; the broader environmental contexts in which they were used were overlooked, and factors such as unreliable Internet access in some schools, lack of teacher training and professional development, and students’ abilities to bypass security controls contributed to this technology debacle. The users had agency over the ways in which they interacted with their school iPads, in ways that the designers did not intend.

An additional design implication from this study is that the embedded context in which instructional videos are placed deserves to be highlighted and foregrounded. If students are similarly attuned to the surrounding elements of an instructional video—

where it is placed on a web-page, the video streaming settings, the design features of the video player—as they are attuned to the multimodal elements within the video (i.e., the graphics and animation)—this calls attention for designers to carefully consider these embedded contexts. Again, to bring in my own researcher and professional positionality, this is something that is often not considered when producing media for online courses. Often our focus is on the content within the videos themselves, and the webpage context (the type of player, the settings of the player, etc.) is an afterthought.

There are implications for the finding that the times and contexts in which students are viewing instructional videos shifts (i.e. between home, commuting, and work lunch breaks. This emphasizes that the act of a student watching an instructional video is a socially situated and contextualized practice. One design implication of this finding is that if the times and contexts are always shifting (and in this population, the times and contexts are often evaluated in relation to their professional lives), the design and delivery online instructional videos should take this into consideration. Instructional design practices might include providing instruction lines in the surrounding web page that explicate the length of time of the video, and a summary of the content contained within the video. This text narration should also include if there are activities accompanying this video (i.e., an assignment, or a discussion thread). These design components will help guide students in their evaluation of how to view the videos (such as during a short period of downtime while at work, or setting aside a larger amount of time on a weekend). Additionally, the design of instructional videos should account for the shifting contexts in which students are watching them. These video artifacts should be able to have playback on a myriad of devices—mobile devices, tablets, laptops and

desktops, phones, different browsers, etc.—as well as embody adaptive bitrate streaming settings to account for various Internet connections. Finally, a more “user-centered” design (Norman, 1988) might include the feature of downloading videos, so that students are able to download these content artifacts so that they are able to watch them during times when they are offline—such as while commuting on a train with no Internet, or while flying on an airplane.

The outcome that multimodal design elements influence the ways in which students confer trustworthiness to instructional videos (from Chapter V) carries design implications. One of the goals of this dissertation study is to address a gap in the literature around the interpretation of multimodal artifacts (Holsanova, 2014), and the overarching thematic finding of this dissertation is that students have agency in their meaning-making processes, often in ways that do not align with the intentions of the designers. This is clear especially from the “blurred experiences” (i.e., the producer of an instructional video does not intend for it to be considered a webinar). This is also evident from the ways students interpreted instructional videos and conferred credibility and trustworthiness to them; this meaning-making occurred in ways that were not intentionally architected or designed. For example, the finding that students assigned trustworthiness to a speaker because of his association with someone they previously met at a face-to-face residency, or because of the speaker’s verbal delivery—these were not intentional “trustworthiness” design choices on the part of the video producers or instructional designers. This also raises an important point for designers to create resources that might allow for deeper critical thinking on the part of the students—so that

learners might problematize what they might consider “trustworthy,” and not just be taken with surface qualities.

One theme emerged wherein students conferred greater trust towards videos they perceived as incorporating higher production values, which is something that can be intentionally designed. It should be stated that “professional” seeming production values can be created without large amounts of resources (such as studio space, dedicated media production staff, or high-end equipment and software); rather, simple techniques related to lighting, framing, and audio can be utilized in order to achieve relatively “high” production values. Additionally, incorporating the semiotic signifiers of institutional branding—other multimodal elements discussed in terms of trustworthiness—is something that does not require significant time or resources.

Implications for Theory

First, there are broader theoretical implications related to the nature of experience (beyond the scope of this dissertation study), possibly discussed in fields such as neuroscience, as to why experiences with videos blurs with other course elements. Possible interpretations include—similar experiences, both in content and/or physical settings, create blurs in one’s memory between events. For example, the experience of watching a PowerPoint presentation during a real-time webinar is similar to the experience of watching an online course video—participants wear headphones, watch a computer screen, click a mouse—and thus in recollection, the two events are not considered as separate events. Similarly, the experience of watching a faculty member present during a face-to-face residency (while sitting and taking notes) mirrors the

experience of watching a video of a faculty member deliver a lecture (while sitting and taking notes). Additional implications include that students' sense-making of multimodal elements found *within* the videos was blurred and interpreted with the multimodal elements *surrounding* the videos (i.e. characteristics of the video player).

In relation to User Experience, I hope this work makes a theoretical contribution to the field by emphasizing the rich, lived experiences with technology—including participants' sociocultural contexts, and the agency by which users make meaning of their experiences with technology (in particular, online instructional videos). These findings offer a critique of technologically determinist positions that experience *can be* “designed,” or that the ways in which we experience technology is focused on task completion. I hope this work builds upon an argument that the UX field should return towards previous scholarship around context and agency (e.g., Brown & Duguid, 2000; Lave, 1988, 1993; Lave & Wenger, 1991; Orr, 1996). I also think that by combining the fields of UX and multimodality, that the UX field has something significant to gain from the traditions of multimodality, especially in relation to learning. In particular, multimodality considers the generative possibilities of communication across various modes, and has been applied when thinking about literacies, such as the ways in which people can learn (and demonstrate their ideas) via various formats such as digital video. By highlighting learning in the UX field—this might have implications for design, such as repositioning “users” as “learners”; and offering multiple modalities for learners to experience and interpret, as well as create, within digital sites.

I also contend that the conceptual framework of multimodal user experience and the processes of sense-making as outlined by McCarthy and Wright (2004) are useful and

productive analytical tools when studying how people are experiencing technology. These theoretical frameworks allow for multi-faceted and rich inquiries as to how participants navigate online spaces; how they are making sense of their experiences with web pages, online videos, and other sites and artifacts of technology; and how their meaning-making intersects with semiotics (or multimodal resources, or non-verbal elements). In the future, I plan to continue using these analytical frameworks of multimodal user experience and sense-making in other research projects related to how people experience technology, and more specifically, online videos.

Future Research

There are many potential areas for future research. To return to the question of the reception or interpretation of multimodal artifacts, it might be methodologically rich to combine semiotic, multimodal methodologies with cognitive methodologies. Combining cognitive tools—such as eye-tracking devices and software—with multimodal frameworks—may offer a deeper exploration to the ways in which students are experiencing multimodal artifacts. This hybrid methodology might especially offer insights into how students are sense-making specific design elements, such as what design elements students focus their attention towards.

I believe there is potential in future research related to trustworthiness, such as how students view trustworthiness in relation to their learning and retention, and deeper explorations into how semiotic modes influence people's perceptions of trustworthiness. Further investigation as to how trustworthiness is established and maintained has broader implications, particularly for the wider scope of the Internet and online sites (ranging

from e-commerce and review sites, such as Yelp, to non-profit sites like Wikipedia), as many online sites rely on user trustworthiness as core to their operations model (Freedman, Crowley, & West, 2011).

Also, future research may be productive in relation to the ways in which shifting times and contexts influences learning experiences. While I argue there are design implications related to the fact students watch instructional videos during different times and spaces, the scope of this study did not investigate how these shifting spaces influence learning experiences. What does it mean for a student to work at a coffee shop on a laptop, or on an iPad during a work commute on a train, or on a home office computer? Does this influence learning experiences and outcomes? What are the implications and correlations between the physical spaces and tangible devices that people use, in relation to their experiences with virtual spaces and online courses? Many scholars have conducted rich work related to spatial theories in relation to digital practices and digital spaces (Leander et. al, 2010; Leander & McKim, 2003; Leander & Vasudevan, 2009; Moje et. al, 2004), and there is still much work to be done in these areas.

In relation to online video, areas of future research that I find especially rich are related to ideas of social presence and instructor immediacy. Several scholars have recognized social presence as one of the most important aspects of online learning (Sung & Mayer, 2012). Social distance, in particular the social distance between instructors and learners, can be lessened by online videos that seek to increase instructor social presence (Hibbert, Kerr, Garber, & Marquart, 2016). Online videos featuring instructors can be used as a way to increase social presence (Dunlap & Lowenthal, 2014) and instructor immediacy (Baker, 2010), and lessen social distance (Magee & Smith, 2013). This is

especially salient in online course environments, where experiences of isolation are commonly reported (Smith & Taveras, 2005).

There are also many areas of future research related to multimodal user experience. For instance, how does the context of embeddedness of an online artifact (such as an online video) influence users' meaning-making? For instance, in what ways do the surrounding contexts and characteristics of an online video—the features of the video player, the placement on the webpage, the surrounding text and graphics, the thumbnail of the video—how might these elements influence learning and sense-making? How do technical aspects—browsers, Internet speeds, screen resolution, etc.—effect user experience? There are many considerations for further research and projects as to how the designs of technology and online sites influences meaning-making, and these questions point to just a few possible directions for this line of research.

In addition, the field of online media and instructional media is a rapidly shifting one. New advancements and changes in this area—including virtual reality and augmented reality (VR / AR) such as Oculus Rift; “360” video and cardboard VR viewers; simulations, and “cross-contextualized user experience”—these developments raise many questions around the use of media and learning. In the moment of writing this, Google Glass (a version of wearable computer in the form of ocular glasses) has been characterized as a failed experiment, although one aspect considered “successful” is the use of its first-person video recording abilities for learning and training purposes such as medical surgery (Peregrin, 2014). These futuristic tools that combine the virtual with the real, or embody designs that are wearable, also open up many questions and future research around the ways we experience and learn from media.

As educational experiences become increasingly digitized and personalized, many questions might also arise around the “tone-shifting” between online and offline learning. Just as the “tone-shifting” that occurs when switching between languages—the spatial dislocation, and the different depths and tonalities that different languages afford—learning in online and offline environments could be considered learning in different “languages.” This relates to ideas of transmediation (Siegel, 1995), and considering what is gained and created as one moves across multiple modalities. The shift of educational spaces from face-to-face to online environments may lose certain qualities and affordances; yet new possibilities are also generated.

Closing Thoughts

In closing, this dissertation study offers an exploration of student experiences of online instructional videos, in an online graduate course context. This offers only a small slice of data, especially in relief of the broad and ever-expanding field of online education. My original intentions of this project was to “just” study videos—but it evolved to be something broader, and the student experiences became the focus and the foreground, rather than the multimedia artifacts. I like to imagine that this is due to the fact that what makes technology powerful—and what the true affordances of web platforms and sites consist of—is that it is about the *human* experiences related to these technologies. I view this dissertation as a continued trajectory of investigating human experiences with technology, especially with media and videos; and part of an ongoing investigation into multimodality, and online/distance education. I am grateful to have had the opportunity to conduct this study, and plan to continue further work in these areas.

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Appendix A

INTERVIEW GUIDE

Introduction

First, I would like to thank you for taking the time out of your day to participate in this interview. I know as graduate students and busy professionals, you have a full schedule, so again we appreciate your willingness to discuss your online video experiences. Before we get started, I just want to explain to you the purposes of this research and the consent.

The purpose of this study is to investigate how graduate students describe their experiences with online video, in a graduate school context. This research is conducted by myself, Melanie Hibbert, a doctoral student at Teachers College, Columbia University. You are being asked to be interviewed which will be recorded on an audio device. You may request to stop the interview at any time, or request that the audio recorder be turned off. There will be no references to your identity in the final research reports. The files will be deleted at the end of this research project.

Do you have any questions?

I also want to emphasize that there are no right or wrong answers.

Opening Questions

- 1). What program are you in, and where are you in program?
- 2). What were some reasons why you decided to enroll in this program?

- 3). Do you use online video for learning reasons? If so, when, and what sites do you use?
- 4). Have you taken online courses previously?

Video Questions Outline

In general, how would you describe your experience with course media?

How would you describe the ways in which you used video in your online courses?

What are some things you remember from the videos?

Do you feel that the media helped you learn anything? [Be specific about certain courses, certain videos]. If so, what?

Do you feel that the videos helped teach concepts that you might not have understood if you just read it as text?

Did you talk to anyone about the videos? With whom? Which videos did you discuss?

Did you apply anything you learned from the videos to your job or workplace?

What was your favorite videos, and why? What was your least favorite video?

What are your thoughts on the production values of the videos?

What could have made the videos better?

Did you watch all of the videos?

Did you watch the videos to completion? (Follow-up questions: why/why not?

How long did you watch them?)

Did you watch videos multiple times? (Which videos, if so?)

How and where did you watch the videos (mobile device, computer, listen to as audio, on work commute, etc?)

Did you take notes on the videos?

Did you download accompanying slide decks?

Did you ever download the videos? (Follow-up ?s: why/why not)

Did you ever share the videos? (Follow-up ?s: why/why not; if so, where do you post/link; if not, do you post videos elsewhere, and why)

Closing

Are there any things you would like to say or add that did not come up in this interview?

Appendix B

BATCH RECRUITMENT EMAIL

Hello,

We hope you are having a great semester.

Part of the mission of the online team at [graduate school] is to continually research best practices related to online learning. As part of this, we are currently conducting research related to student experiences with course media. Additionally, these interviews will be used for a doctoral research project at Teachers College, Columbia University, with IRB approval #13-294.

If you are available, we would like to schedule a Skype or phone interview with you sometime soon to discuss your opinions about online videos in the courses you have completed. This will occur at a time of your convenience. To compensate for your time to participate in an interview, you will be awarded with a \$20 Amazon gift card. If you are interested, please respond to this email with times you might be available. Interviews will last approximately 30-60 minutes. All interviews and identifying information will be confidential.

Thank you,

Melanie Hibbert