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Beyond The Podium: A Critical Analysis Of Three Online Learning Tools

Julia Kott
William & Mary - Arts & Sciences, juliashannonkott@gmail.com

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Julia Kott

Brooklyn, New York

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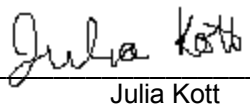

Julia Kott

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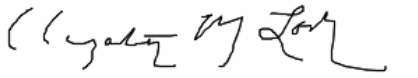
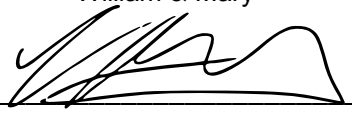


Committee Chair or Co-Chair
Elizabeth Losh
Professor of English and American Studies
William & Mary

Monica Griffin
Director, Engaged Scholarship and Sharpe Program; Affiliate Faculty, American Studies
William & Mary



Michelle Lelièvre
Associate Professor of American Studies & Anthropology
William & Mary

ABSTRACT

Paying attention to the ways digital tools mediate the pedagogic encounter is to attend to the inherently emotional process of teaching and learning. This thesis investigates the implications of bringing eLearning tools into the online classroom with reference to bell hooks' and Paulo Freire's work on radical pedagogy and Aimi Hamraie's notion of the "normate template" to investigate three eLearning tools called "Proctorio," "FlipGrid," and "Panopto".

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Finally, I would like to thank my roommates, my friends and my family for their love and guidance. Many thanks and much love to my godmother for providing me with a quiet space to work and live during this global pandemic.

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Biographical Note

This project comes from my experience working in the eLearning office at William & Mary in Williamsburg, Virginia from August of 2015 through May of 2019. When I began the master's program in American Studies, I had just started working full time for the eLearning team. Up to that point, my academic and professional life had always felt like two distinct parts of myself. During the day I would make lecture videos and develop online courses, and at night I would discuss feminist theory and literature with my peers. The link between my studies and my eLearning work became clear to me through conversations with my advisor Dr. Elizabeth Losh. She showed me the many ways that scholars, activists, and technologists effectively bring critical theory to eLearning work and I began to see the possibilities for myself. In my graduate research and discussions with my coworkers and peers, I began to have a language to talk about the problems I saw in online learning development. Where I had previously felt caught between two sides of myself, I began to feel a cohesion between my work and studies. This thesis is my attempt to bring a critical analysis to digital learning environments and to offer up a useful framework to those involved in the world of eLearning and beyond.

I began this thesis in the spring semester of 2019 and as I complete it a year later, so much about our world has changed. As a result of a global pandemic, students and faculty have quickly adopted online learning tools and strategies with varying levels of success and satisfaction. It remains to be seen what the fall 2020 semester will look like for higher education, but online learning tools are not going anywhere, and it is my belief that close, critical analysis of these tools will bring us towards more liberatory models of teaching and learning online.

Part 1: The Classroom

One of my first projects as a student assistant for the (then-called) office of eLearning Initiatives at William & Mary was photographing every classroom on William & Mary's campus. The project was to compile a database of images that would allow instructors to see what their assigned classroom looked like and to provide information about the available technology in each space. In each room, the rows of desks, dry erase boards, projectors, even the leftover water bottles, the scraps of paper, and pencils were all variations on the same theme – what Torin Monahan has termed "built pedagogy" or the "architectural embodiments of educational philosophies."[1] Each classroom had a model for where and how bodies should move and sit, and in the hastily erased markings on the board, or the left behind sweatshirt slumped in a corner, the rooms contained the imprints of the bodies that had been there, some more, some less visible. The almost invisible includes the people who built the furniture, as much of the furniture at William & Mary, and many public universities throughout the United States, is made by inmates in prisons because of mandatory contractual obligations between the state-funded institutions and prisons.[2]

As scholars of social space have written, space, and how bodies navigate through it, is always political. The classroom in particular has remained a fairly static site. Cathy N. Davidson and David Theo Goldberg write that the notorious Ichabod Crane from Washington Irving's short story "Sleepy Hollow" (published in 1820) "could

[1]Torin Monahan, "Flexible Space & Built Pedagogy: Emerging IT Embodiments," *Inventio* 4, no. 1 (2002): 1.
[2] Lila Burke, "Public Universities, Prison-Made Furniture," *Inside Higher Ed*, February 14, 2020 https://www.insidehighered.com/news/2020/02/14/public-universities-several-states-are-required-buy-prison-industries.

walk into most college classrooms today and know exactly where to stand how to address his class."[3] Although teaching theory and technology have changed massively, "our schools— how we teach, where we teach, who we teach, who teaches, who administers, and who services— have changed mostly around the edges,"[4] Davidson and Goldberg write.

The objects in a college classroom are not there by accident. The desks, podiums, and trash cans arrive, in the case of William & Mary, after moving through a prison system, with a purpose and years of precedent. The objects maintain a balance of power between students and teachers that can be difficult to resist. The objects in the classroom contain expectations and demands, or what scholar Aimi Hamraie has termed a "normate template." Hamraie writes: "Examine any doorway, window, toilet, chair or desk…and you will find the outline of the body meant to use it."[5] This outline is the "normate template" inscribed on our physical world, often clearly visible in the shapes of the objects we encounter.

Looking at objects in the university classroom, one can see Hamraie's normate template. Consider the podium standing tall at the front of a classroom. When looking at a podium, an outline of an expected user is visible: there is a place for notes, a place for hands, a place for feet. The body, or bodies, that do not fit behind the podium "correctly" are marked as not belonging because the podium itself has created a set of norms.

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[3] Cathy N. Davidson and David Theo Goldberg, *The Future of Learning Institutions in a Digital Age,* (Cambridge, Massachusetts: The MIT Press, 2009), 8.
[4] Davidson and Goldberg, 8.
[5] Aimi Hamraie, *Building Access: Universal Design and the Politics of Disability*, (Minneapolis: University of Minnesota Press, 2017), Chapter 1.

Michel Foucault writes about the "art of distributions"[6] and how power flows through the positioning of bodies in space. He writes that assigning places in the classroom, putting students in rows, and instructors at the front of the room for example, "[...] made the educational space function like a learning machine, but also as a machine for supervising, hierarchizing, rewarding."[7] Spatial arrangements create distinctions among students and allow for a more efficient supervision and classification of bodies.

These arrangements can create habits, like the habit of standing behind the podium. As Julie Cohen writes, "[I]nstitutions configure citizens, inculcating habits of mind and behavior that lend themselves more readily to certain types of practices than to others."[8] Once behind the podium, moving around the room might seem more difficult as it requires breaking away from the object and its patterns of use. bell hooks, a practitioner and theorist of what she calls an "engaged pedagogy"[9] writes about her experiences navigating the physical classroom: "I remember in my early teaching days that when I first tried to move out beyond the desk, I felt really nervous. I remember thinking, 'This really is about power. I really do feel more 'in control' when I'm behind the podium or behind the desk than when I'm walking towards my students, standing close to them, maybe even touching them."[10] Moving from behind the front desk and walking around the room is a necessary part of hooks' practice of engaged pedagogy, but requires resisting the expectations of the furniture.

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[6] Michel Foucault, *Discipline and Punish*, (New York: Vintage Books, 1995), 141.
[7] Ibid, 147.
[8] Julie Cohen, "What Privacy Is For," *Harvard Law Review* 126 no. 7, (2013): 1912.
[9] bell hooks, *Teaching to Transgress,* (New York: Routledge, 1994), 13.
[10] hooks, 138 - 139.

Another example of this kind of resistance is found in scholar Amanda Cachia's *alterpodium.* Cachia writes about her experience approaching a podium as a person with dwarfism: "[...] I literally have an audience watching my (oftentimes) awkward encounter with the podium, as I must negotiate and maneuver around the podium in order to 'fit' it better. My body must adjust to its height, width, and depth in order for me to be seen and heard."[11] In light of her experiences approaching the podium, Cachia developed an "*alterpodium,*" custom designed for her height, that she sets up next to an "average size" podium when delivering lectures. The *alterpodium* invites viewers to consider the ways the built environment does not exist comfortably for all bodies. Moving beyond the desk and the podium means acknowledging and then resisting objects' imagined users and sets of norms. hooks' observations about the power of the desk and podium and Cachia's *alterpodium* both resist the notion that bodies must be contained in order to function properly within academia.

I start this thesis with a reflection on the physical classroom in part because it is easier to conjure up the image of rows of desks and chalkboards than a digitally constructed pedagogical space. The digital classroom does not exist as a singular, static location as students move in and out of various digital spaces to access learning content. A clear distinction between a "digital classroom" and a "physical classroom" imposes a false binary on our digital and physical selves. As Jesse Daniels writes, online interactions are "embedded in present-tense, material, embodied lives rather than imagined cyborg futures."[12] Online interactions occur because of bodies and not in

[11] Amanda Cachia, "The *Alterpodium*: A Performative Design and Disability Intervention," *Design and Culture* 8, no. 3, (2016): 2, doi: 10.1080/17547075.2016.1218709.
[12] Jesse Daniels, ""Rethinking Cyberfeminism(s): Race, Gender, and Embodiment," *Women's Studies Quarterly* 37, no.1/2*,* (2009): 109.

spite of them. When we are online, we are also sitting in our rooms, at our desks, at our libraries. We do not arrive online equally. Chris Gilliard writes about "digital redlining" or the "creation and maintenance of technological policies, practices, pedagogy, and investment decisions that enforce class boundaries and discriminate against specific groups."[13] He writes that educational technologies in particular actively integrate digital redlining practices by pay-walling access to texts, using predatory surveillance practices, and other tactics. These practices create differential access to materials and therefore "reinforce existing class structures."[14] Safiya Noble, in her widely influential book *Algorithms of Oppression: How Search Engines Reinforce Racism*, writes about how commercial algorithms such as Google, are often characterized as neutral entities, masking the ways they actually "reinforce oppressive social relationships and enact new modes of racial profiling."[15] When commercial interests are what drive how information is categorized and analyzed by a machine-learning system, those who are deemed less valuable to those interests are misrepresented in the results. This has real impacts on people's lives Noble writes, "from misrepresentation to prison sentencing to accessing credit and other life impacting formulas."[16] In the case of educational technology, one way inequality is reinforced is through a lack of accessible content. Although public institutions are legally required to adhere to a set of accessibility guidelines, the implementation often puts the burden on students with access needs. The legal requirements can be found in Section 508 of the 1973 Rehabilitation Act and in the

[13] Chris Gilliard, "Pedagogy and the Logic of Platforms," *EDUCAUSE*, July 3, 2017, https://er.educause.edu/articles/2017/7/pedagogy-and-the-logic-of-platforms/.
[14] Ibid.
[15] Safiya Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism,* (New York: NYU Press, 2018), 1.
[16] Ibid, 49.

1990 Americans with Disabilities Act. Together, these laws "establish a firm legal basis for the requirement that IT procured, developed, and used by postsecondary institutions be accessible to individuals with disabilities."[17] Since the passage of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 and their amendments, public institutions legally must provide equal access to all resources to students with disabilities.

In this model, students with access needs have to disclose their disability in the proper manner to the correct people, often multiple times, to receive access. Within the university, as Katherine Elizabeth Jung writes, the category of "disability" only begins to cohere in relation to administrative bodies: "Disability is not a category of a natural kind; it is a means by which an idiosyncratic and personal experience of illness or impairment can be made visible to the administrative bodies of the university for the purpose of activating an organizational course of action."[18] It is true that students can only be served by accessibility services if they are able to make their disability adequately visible to the right people. This model shifts the responsibility from the university onto students to adequately prove their need for accessible content. Often, the blanket student accessibility statement exemplifies this attitude. It serves to meet a university's legal obligations towards students with disabilities while maintaining the power to define what impairments count as worthy of accommodation. As an example, at William & Mary, the institution where this thesis was written, the sample student accessibility statement provided by the Dean of Students office reads:

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[17] Sheryn Burgstahler, "ADA Compliance for Online Course Design," *EDUCAUSE*, January 30, 2017, https://er.educause.edu/articles/2017/1/ada-compliance-for-online-course-design.
[18]Katherine Elizabeth Jung, "Chronic Illness and Educational Equity: The Politics of Visibility," *NWSA Journal* 14, no. 3 (2002): 282, https://www.muse.jhu.edu/article/37975.

> William & Mary accommodates students with disabilities in accordance with federal laws and university policy. Any student who feels they may need an accommodation based on the impact of a learning, psychiatric, physical, or chronic health diagnosis should contact Student Accessibility Services staff at 757-221-2512 or at sas@wm.edu to determine if accommodations are warranted and to obtain an official letter of accommodation. For more information, please see www.wm.edu/sas.[19]

The statements and the notion of "accommodations" in general, contain an echo of Johanna Hedva's language, from her essay "Sick Woman Theory:" To take care of you is not normal. I can only do it temporarily."[20] Mia Mingus describes another model of accessibility called "access intimacy." "Access intimacy," she writes "is that elusive, hard to describe feeling when someone else 'gets' your access needs… Access intimacy is not charity, resentfulness enacted, intimidation, a humiliating trade for survival or an ego boost … It has looked like relationships where I always feel like I can say what my access needs are, no matter what."[21] Access intimacy is about the relationship created between people and is present in spaces students feel welcome to express their access needs.

In this section, this thesis introduced the notion of the "normate template," and the unequal access to digital tools as a result of digital redlining and bare minimum legal requirements for accessibility. In Part 2, this thesis will define the term "eLearning," locate the practice within higher education and analyze the role of the instructional designer. Exploring the history of eLearning within higher education, establishes the

[19]"Example Syllabus Statement," William & Mary, accessed July 18, 2020, https://www.wm.edu/offices/deanofstudents/services/studentaccessibilityservices/facultyresources/syllabusstatement/index.php.
[20] Johanna Hevda, "Sick Woman Theory," *Mask Magazine*, accessed July 2, 2020, http://www.maskmagazine.com/not-again/struggle/sick-woman-theory.
[21] Mia Mingus, "Access Intimacy: The Missing Link," *Leaving Evidence* (blog), May 5, 2011, https://leavingevidence.wordpress.com/2011/05/05/access-intimacy-the-missing-link/.

context in which eLearning tools are brought into the online classroom. Part 2 also looks closely at the relationship between instructional designers and faculty members as a key site for the implementation of online learning tools. It will also examine critiques of online learning tools as put forth by scholars and activists in the field. In Part 3, this thesis turns to the work of Paulo Freire and bell hooks in order to establish a basis for a radical pedagogy. And in the final section, this thesis closely analyzes three online learning tools, putting Freire's and hooks' insights into practice.

Part 2: eLearning in Higher Education

Broadly speaking, there is a lack of clear language when it comes to defining the practice of eLearning within higher education. Sometimes "eLearning" (or the term of choice) refers specifically to courses that are taught entirely online, meaning all instruction and communication within the course take place via the internet. At other times "eLearning" refers to any set of pedagogical practices that require the use of technology (often very broadly defined). Kovanović et al. write about the "plethora of different terms" that have emerged to describe online learning which include "[...] web-based learning, blended learning, e-learning […] technology-enhanced learning (TEL), Internet-based training (IBT), and virtual learning environments (VLE)."[22] The definitional complication is particularly apparent in debates around defining "blended learning" or the practice of incorporating online learning technology into a face-to-face class.[23] A single definition is out of reach Skrypnyk et al. write because "a broad definition embraces practices too diverse and varied in intensity to be replicated without more detailed specifications."[24] This lack of definitional clarity is not new to the field. De Vaney and Butler wrote in 1996: "[D]efinitions are historically contingent, and in a field constructed around ever changing notions of technology, definitions as well as

[22] Kovanović et al, "The History and State of Distance Education," in *Preparing for the Digital University: A Review of the History and Current state of Distance, Blended, and Online Learning* (Athabasca University, 2015), 13.
[23] Oleksandra Skrypnyk et al., "The History and State of Blended Learning," in *Preparing for the Digital University: A Review of the History and Current state of Distance, Blended, and Online Learning* (Athabasca University, 2015), 62.
[24] Skrypnyk et al., 74.

machines have obsolescence built into them."[25] But for De Vaney and Butler, the inability of scholars and practitioners to clearly define educational technology is "to the credit of the field"[26] and allows the field to contain a multiplicity of perspectives and approaches.

This thesis uses the term "eLearning" to broadly encompass the use of digital technology in the classroom as defined by EDUCAUSE in various reports: "Our definition of e-learning is learning that involves a web-based component, enabling collaboration and access to content that extends beyond the classroom."[27] This definition contains two main parts: eLearning is web-based and allows collaboration and access outside of a shared physical space.

Perhaps as a result of definitional difficulties, the place of eLearning within higher education is not as of yet, institutionally clear. At many institutions, an office of instructional designers or learning designers exists specifically to help faculty bring technology into their teaching practice using instructional design principles. Where these professionals are located institutionally is not standardized across higher education: "Some institutions provide e-learning services and technologies centrally, and some have a distributed or mixed approach."[28] Sometimes these offices are housed under IT, sometimes under "distance learning" or "instructional design" centers, sometimes under a larger "teaching and learning" umbrella, and other times a mixture of

[25] Ann De Vaney, and Rebecca P. Butler, "Voices of the Founders: Early Discourse in Technology," in *Handbook of Research for Educational Communications and Technology*, (New York: Macmillan, 1996), 2.
[26] De Vaney and Butler, 3.
[27] Susan Grajek, "The Digitization of Higher Education: Charting the Course," EDUCAUSE, December 12, 2016, https://er.educause.edu/articles/2016/12/the-digitization-of-higher-education-charting-the-course.
[28] Jacqueline Bichsel, "The State of E-Learning in Higher Education," EDUCAUSE, June 2013, https://library.educause.edu/~/media/files/library/2013/6/ers1304.pdf, 2.

these.[29] Some universities have offices of "digital learning" including the Teachers College of Columbia University,[30] some have offices or departments of "academic technology" including San Francisco State University,[31] Pace University[32] and University of New Hampshire.[33] There are offices of "online learning" at Cornell University[34] and University of North Carolina at Chapel Hill[35] and a distance learning team at South Texas College.[36] There are "eLearning" offices at Seattle Central College,[37] Pensacola State College,[38] and Bellevue College,[39] just to name a few examples. The instructional designer's shifting location demonstrates the ambiguity around the purpose and day-to-day duties of the position.

"The pedagogic encounter is full of angles" writes Sara Ahmed, "How many times have I read students as interested or bored, such that the atmosphere seemed one of interest or boredom (and even felt myself to be interesting or boring), only to find students recall the event quite differently!"[40] Ahmed is writing about the way emotional

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[29]"Instructional Design in Higher Education: A Report on the Role, Workflow, and Experience of Instructional Designers," Intentional Futures, April 2016, https://intentionalfutures.com/static/instructional-design-in-higher-education-report-5129d9d1e6c988c254567f91f3ab0d2c.pdf.
[30]"Office of Digital Learning," Teacher's College, Columbia University, accessed July 15, 2020, https://www.tc.columbia.edu/office-of-digital-learning/.
[31] "Academic Technology," San Francisco State University, accessed July 15, 2020, https://at.sfsu.edu/.
[32] "Academic Technology," Pace University, accessed July 15, 2020, https://www.pace.edu/its/about-its/departments/academic-technology.
[33] "Academic Technology," University of New Hampshire, accessed July 15, 2020, https://www.unh.edu/it/academic-technology.
[34] "Online Learning," Cornell University, accessed July 15, 2020, https://sce.cornell.edu/courses/programs/online.
[35] "Carolina Office for Online Learning," University of North Carolina at Chapel Hill, accessed July 15, 2020, https://cool.unc.edu/.
[36] "Distance Learning," South Texas College, accessed July 15, 2020, https://catalog.southtexascollege.edu/support-services/distance-learning/.
[37] "eLearning," Seattle Central College, accessed July 15, 2020, https://seattlecentral.edu/programs/elearning.
[38] "eLearning," Pensacola State College, accessed July 15, 2020, https://elearning.pensacolastate.edu/.
[39] "Bellevue College eLearning," Bellevue College, accessed July 15, 2020, https://www.bellevuecollege.edu/elearning/.
[40] Sarah Ahmed, *The Promise of Happiness*, (Durham: Duke University Press, 2010), 41.

attachments influence our experience of the world. If students arrive to a classroom tired, as bell hooks writes of her experience teaching an early morning class, the class can fail to become a "learning community."[41] In her example, hooks would arrive to the class "wired, full of an energy few students mirrored," but found the energy in the room palpably stagnant and was unable to create a compelling learning environment. How the students and faculty come together to create a space of learning is influenced by a wide range of environmental factors, that as Ahmed writes, are experienced in a highly subjective, shifting manner. When Ahmed reads her students as interested or bored, it influences her understanding of herself. Her reading of her students affects the way she engages with them and interprets her own actions.

Given this, when an instructor and student interact using an eLearning tool, their interaction can be influenced by the presence of an instructional designer. The instructional designer is part of the pedagogic encounter – one of the people that contributes to the atmosphere students arrive into. Often there is tension between the instructional designer and instructor, and they struggle to build successful, trusting relationships. The relationships between faculty and instructional designers are so fraught that a consultancy firm report found that the "biggest obstacle" for the 853 instructional designers surveyed was building successful relationships with faculty.[42]

From the faculty perspective, David Noble writes about concerns with increased administrative access to online course content: "Once faculty and courses go online, administrators gain much greater direct control over faculty performance and course

[41]bell hooks, *Teaching to Transgress,* 9.
[42]"Instructional Design in Higher Education: A Report on the Role, Workflow, and Experience of Instructional Designers," 15.

content than ever before and the potential for administrative scrutiny, supervision, regimentation, discipline and even censorship increase dramatically."[43] The administrators Noble describes are not monolithic and are often in complex relationships to institutional power (as are faculty members). In practice this means that the development of an online course, or the implementation of an eLearning tool, emerges from an instructional designer's research, an administration's desire to use certain tools, and a faculty member's interest in the technology.

There is no default designation within Blackboard for the user role "instructional designer"[44] or in Canvas[45] or Moodle,[46] and if the instructor does not mention the work of the instructional designer to their students, the students may not know the development of the online course was not entirely the work of the faculty member. The instructional designer is often disguised yet maintains a level of control over the learning space. While faculty members like David Noble feel concerned about the ideology that administrators bring to their classroom – the potential for censorship and control – instructional designers interviewed in the Intentional Futures report felt their relationship with faculty members to be an obstacle in their work.

As Curtis Fletcher writes, humanities scholars and educators historically "have been more willing to develop resources for and exercise control over the technologies

[43] David Noble, "Digital Diploma Mills: The Automation of Higher Education," *First Monday* 3, no. 1-5, (1998) https://firstmonday.org/ojs/index.php/fm/article/download/569/490.
[44] "Course Rules," Blackboard, accessed July 15, 2020, https://help.blackboard.com/Learn/Instructor/Courses/Course_Roles
[45] "Canvas Course Role Permissions," Canvas, accessed July 15, 2020, https://s3.amazonaws.com/tr-learncanvas/docs/Canvas_Permissions_Course.pdf
[46] "Roles and permissions," Moodle, accessed July 15, 2020, https://docs.moodle.org/39/en/Roles_and_permissions.

they use for research than those they use in the classroom."[47] Many faculty members are unwilling to devote time to understanding how digital learning systems work and therefore have less control over their implementation.

Sarah Ahmed's reflection on the affective experience in the classroom and hooks' experience struggling to engage an early morning class is relevant to the experience of an instructional designer. The instructional designer marks another perspective in pedagogical encounter, as she has feelings about various online learning tools, and holds influence over how eLearning tools are implemented.

To better understand eLearning within an institutional context, and how instructional designers came to be part of higher education, it is useful to briefly examine the history of the field. Robert Reiser identifies two concurrent and interrelated histories: the history of instructional design and the history of instructional media.[48] Instructional design theory developed alongside instructional media. As educational films, instructional radio, and instructional television began to be used pedagogically, educational psychologists and theorists were also developing theories about the most efficient and effective ways to teach students. Instructional media, defined by Reiser and Gagné, is the "physical means via which instruction is presented to learners."[49] Instructional design is a model of developing instruction that involves "the analysis of instructional problems and the design, development, implementation, and evaluation of instruction procedures and materials intended to solve those problems."[50] Together

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[47] Curtis Fletcher, "Educational Technology and the Humanities: A History of Control," in *Debates in the Digital Humanities*, ed. Matthew K. Gold and Lauren F. Klein, (Minneapolis: University of Minnesota Press, 2019), doi:10.5749/j.ctvg251hk.33.
[48] Robert Reiser, "A History of Instructional Design and Technology: Part I," *Educational Technology Research and Development* 49, no. 53, (2001): doi: https://doi.org/10.1007/BF02504506.
[49] Reiser, "A History of Instructional Design," 17.
[50] Reiser, "A History of Instructional Design," 23.

instructional media and instructional design form the backbone of many eLearning offices within universities.

In the US, both instructional media and instructional design were heavily influenced by the Second World War. During WWII, the U.S. Army recruited educators and psychologists, including prominent educational psychologist Robert Gagné, to research and develop training materials for the military.[51] De Vaney and Butler write that the WWII researchers selected mostly came from educational psychology departments "steeped in a specific neobehavioral theory"[52] in which "the mind was considered a tabula rasa that could be modified by training."[53] Behavioral theory or behaviorism is a theory of learning that emerged from animal psychology[54] and from psychologist Edward Thorndike's belief that "the association between sense impressions (stimuli) and impulses to action (responses) was the area where learning took place."[55] There are many different variations on behaviorism, but generally it requires students to respond correctly to various questions (or stimuli) through memorization or association.

During WWII, a large number of training films and materials were distributed to soldiers including audio equipment for foreign language training, flight simulators, and slide projectors.[56] After the war, educational psychologists continued to develop training models based on their work for the military, "[t]he constrained reductive model of audience, task and evaluation, which served the Armed Forces so well, was transferred by the educators who designed it back into the public school arena."[57] Serious critiques

[51] Ibid, 23.
[52] De Vaney and Butler, "Voices of the Founders," 5.
[53] Ibid, 6.
[54] Ibid, 5.
[55] Ibid, 5.
[56] Reiser, 19.
[57] De Vaney and Butler, 25.

of instructional design models that center “behavioral objectives” have since “unseated the training model as the central trope of curriculum theory, but it is still part of the model that informs many instructional design techniques today” write De Vaney and Butler.[58] The separate histories of instructional media and instructional design demonstrate the gap that can form between educational technology and pedagogical theory. The people developing digital tools for use in education are not always the same people who are developing up-to-date theories on teaching practices and the result can be technology that is at odds with various instructional goals.

In the past years, eLearning has increased in popularity within higher education (without even considering the shift to online learning as a result of COVID-19). While total enrollment in post-secondary school declined between 2016 and 2018, enrollment in online programs and online courses those years increased.[59] In the 2017 academic year, a third of all post-secondary students took at least one online course, according to the Education Department's National Center for Education Statistics.[60] Even if courses aren’t taught entirely online, many instructors incorporate digital learning tools into their in-person classrooms using Learning Management Systems (LMSs) like Blackboard, Canvas and Moodle to grade and receive assignments. LMS refers to “a type of software for managing internet education or training courses.”[61]

The increasing presence of eLearning in higher education, is not necessarily a result of inherent pedagogical value present in the technology, but rather emerges from

[58] Ibid, 25.
[59] Doug Lederman, “Online Enrollments Grow, but Pace Slows,” Inside Higher Ed, December 11, 2019, https://www.insidehighered.com/digital-learning/article/2019/12/11/more-students-study-online-rate-growth-slowed-2018.
[60] Ibid.
[61] Cambridge Dictionary Online, s.v. “LMS,” accessed July 1, 2020, https://dictionary.cambridge.org/us/dictionary/english/lms.

a variety of factors. According to George Veletsianos and Rolin Moe the rise of eLearning is part of a larger trend towards neoliberalism within higher education. Additionally, they write, the increased focus "is symptomatic of the belief that education, like training, is a product to be packaged, automated, and delivered; and is symptomatic of the technocentric belief that technology is a solution to the perils facing education.[62] Veletsianos and Moe write that the adoption of edtech emerges from a larger US trend towards neoliberalism, wherein free market principles are applied to all elements of society. In the case of education, this has meant reduced government support and increased reliance on private companies to develop the tools necessary for teaching and learning. As the state invests less in higher education, this leaves a "void"[63] for edtech to fill, and institutions are left with difficult choices. Adoption of eLearning technology is based on a variety of factors beyond profit motive, including assumptions about the inherent usefulness of technology.

Many scholars have leveled important critiques of eLearning software including Estee Beck et. al. who write that Blackboard is centered around "surveillance technologies" that "monitor student behavior and overall performance of the student role in ways that reinforce differential power relations between teacher and student."[64] Holly Chick and Nancy Hassel write that online classes "encourage a consumer model of education, with their accompanying marketing as 'flexible' and 'convenient.'"[65] Other

[62] George Veletsianos and Rolin Moe, "The Rise of Educational Technology as a Sociocultural and Ideological Phenomenon," EDUCAUSE, April 10, 2017, https://er.educause.edu/articles/2017/4/the-rise-of-educational-technology-as-a-sociocultural-and-ideological-phenomenon.
[63] Ibid.
[64] Estee Beck, Mariana Grohowski, and Kristine Blair, "Subverting Virtual Hierarchies," in *Making Space:* ed. James P. Purdy and Dànielle N. DeVoss, (University of Michigan Press, 2017).
[65] Nancy Chick and Holly Hassel, "'Don't Hate Me Because I'm Virtual': Feminist Pedagogy in the Online Classroom," *Feminist Teacher* 19, no. 3 (2009): 195.

scholars, like those involved in FemTechNet, have using online learning tools to develop learning spaces that challenge the consumer model described by Chick and Hassel. FemTechNet was founded in 2012[66] and is a network of artists, academics, and students who "who work on, with, and at the borders of technology, science, and feminism."[67] The group developed the concept of a "Distributed Open Collaborative Courses," or online courses that "questioned the hierarchical and colonial impulses of online education"[68] by using strategies that centered openness, communication, distributed knowledge and collaboration.

Part 3: What Does Liberatory Pedagogy Look Like, Online and Off?

This section looks closely at the pedagogical practices of Paulo Freire and bell hooks in order to develop a basis for analyzing Proctorio, FlipGrid and Panopto in the final section of this thesis. Jesse Stommel and Sean Michael Morris have centered bell hooks and Paulo Freire in their work on "critical digital pedagogy"[69] and "critical instructional design."[70] In a series of "playful" questions presented at the Digital Pedagogy Lab Institute, Stommel and Morris asked: What if Freire made a MOOC?[71] and "What if bell hooks made an LMS?[72] In answer to the first question, Stommel and

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[66] Elizabeth Losh, "Together Apart: FemTechNet and Feminist Online Collectives," *Camera Obscura* 31, no. 3, (2016): 133.
[67] "About," Femtechnet, accessed July 17, 2020, https://femtechnet.org/about/.
[68] Losh, 133.
[69] Jesse Stommel, "Critical Digital Pedagogy: a Definition," *Hybrid Pedagogy*, November 17, 2014, https://hybridpedagogy.org/critical-digital-pedagogy-definition/.
[70] Sean Michel Morris, "A Call for Critical Instructional Design," *seanmichaelmorris.com,* October 27, 2017, https://www.seanmichaelmorris.com/a-call-for-critical-instructional-design/.
[71] Sean Michael Morris and Jesse Stommel, "If Freire Made a MOOC: Open Education as Resistance," *Hybrid Pedagogy,* November 19, 2014, https://hybridpedagogy.org/freire-made-mooc-open-education-resistance/.
[72]Sean Michael Morris, "If bell hooks made an LMS," *seanmichaelmorris.com*, June 5, 2017,

Morris lay out a series of six theses inspired by Freire's work. These included "Thesis #1: A course is a conversation, not a static reservoir or receptacle for content" and "Thesis #2: Education cannot be compulsory. The work of learning starts with agency."[73]

When attempting to answer the second question, Stommel and Morris found hooks' writing challenged the existence of learning management systems entirely. Morris writes, "[W]e recognized almost at once that hooks wouldn't make an LMS, that the very structure of the LMS, the assumptions upon which it is based, the pedagogies it has baked into it, the way that it reinforces patriarchal, capitalist values would never be worth a critical feminist remodel."[74] Stommel writes that the LMS "pre-determine[s] the shape of a student's learning environment before that student even arrives upon the scene."[75] For Stommel and Morris, the learning management system stands in the way of a critical pedagogy and hooks' writing illuminated the limitations of their own imaginings. Bringing hooks' work into serious conversation with a learning management system, required the dismantling of the entire learning management system. This thesis brings hooks' pedagogical theorizing to bear on eLearning tools, not to flatten or diminish her commitment to dismantling oppressive structures, but rather to provide a model for the ways of thinking and questioning that are necessary to develop more open and transgressive models of teaching and learning through technology.

Beginning with the teachings of Freire and hooks, this section seeks to develop a framework from which to analyze digital tools. After looking closely at Freire and hooks' writing, this section will turn to scholars Julie Cohen, Shoshanna Zuboff, and Simone

https://www.seanmichaelmorris.com/if-bell-hooks-made-an-lms/.

[73] Sean Michael Morris and Jesse Stommel, "If Freire Made a MOOC: Open Education as Resistance."

[74] Ibid.

[75] Ibid.

Browne to consider privacy and surveillance online and how it is crucial to the kind of pedagogy hooks and Freire lay out.

According to Freire a liberatory education "humanizes" participants through dialogue. Freire writes, "Through dialogue, the teacher-of-the-students and the students-of-the-teacher cease to exist and a new term emerges: teacher-student with students-teachers."[76] In this setup "[t]he teacher presents the material to the students for their consideration, and re-considers her earlier considerations as the students express their own."[77] This model allows a slight differentiation between teachers and students, such that the structuring of a discussion, the framing of a conversation or a literacy lesson is maintained by the teacher, but works to resist the limitations of the power imbalance. Freire writes that this kind of dialogue must be grounded in shared beliefs to function non-hierarchically: "founding itself upon love, humility, and faith, dialogue becomes a horizontal relationship of which mutual trust between the dialoguers is a logical consequence."[78] Freire's pedagogy does not provide students with a series of consumable, static objects of knowledge, rather it is a process through which students become aware of their own oppression and also their ability to enact change. The structure of his pedagogy gives space for each participant to act on their reflections and in this way is humanizing. Through Freire's problem-posing pedagogy, participants become "more human."[79]

This thesis began with a reflection on the physical classroom and the ways bodies are arranged within it, but Freire seems to be less concerned with spatial

[76]Paulo Freire, *Pedagogy of the Oppressed* (New York: Continuum, 2000), 81.
[77]Ibid.
[78]Ibid, 91.
[79]Ibid, 86.

arrangements and more concerned with what is being explicitly communicated to students from the figures of authority. Even so, Freire's pedagogy involves examining relationships to objects. Describing an example of oppressive pedagogy, what he calls the "banking concept of education,"[80] Freire writes:

> For example, my desk, my books, my coffee cup, all the objects before me—as bits of the world which surround me—would be "inside" me, exactly as I am inside my study right now. This view makes no distinction between being accessible to consciousness and entering consciousness.[81]

Education is not the consuming of static objects according to Freire, but a process of discovering how one exists in the world. In the banking model, objects can be consumed, and understood exactly as they are. Reality is objectively knowable through consumption. Rather than a passive relationship to the world and one's place in it, Freire writes we critically intervene in the world when we question reality, changing the bits of the world that we encounter and also ourselves. "Problem-posing education involves a constant unveiling of reality,"[82] he writes. Through critical intervention, by considering the desk, the coffee, the study and Freire's place in it, reality is transformed.

When it comes to digital tools, Freire incorporated various technologies into his literacy workshops. In a footnote in *Pedagogy of the Oppressed,* he writes, "It is not the media themselves which I criticize, but the way they are used."[83] Below, Freire describes the use of pre-recorded interviews in a literacy workshop:

> A member of the team approaches two or more economists of varying schools of thought [..] invites them to contribute an interview on the subject in language comprehensible to the audience. If the specialists accept, an interview of fifteen to twenty minutes is taped. A photograph may be taken of each specialist while

[80]Ibid, 72.
[81]Ibid, 76.
[82] Ibid, 81.
[83] Ibid, 140.

> he is speaking. When the taped interview is presented to the culture circle, an introductory statement indicates who each speaker is, what she or he has written, done, and doing now; meanwhile, the speaker's photograph is projected on a screen. If, for instance, the speaker is a university professor, the introduction could include a discussion regarding what the participants think of universities and what they expect of them. The group has already been told that the recorded interview will be followed by a discussion of its contents (which function as an auditive codification[84]). The team subsequently reports to the specialist the reaction of the participants during the discussion.[85]

In this situation, pre-recorded audio tapes are used to start a discussion. Before listening to the tape, an introductory statement about the speaker is presented while the speaker's image is projected on a screen. Students are told they will have the chance to discuss and critique the recording. In this description, Freire presents a model for engaging with static, pre-recorded interviews in a highly contextual way. Freire creates an opportunity for the group to challenge the authority of the speaker's voice. By drawing out the positioning of the speaker, Freire demystifies the disembodied lecturer. The recording is not presented as an unquestionable text, but rather one to be investigated and challenged. The pre-recorded interview is presented with attention to the identity and social positioning of the speaker – both in terms of the speaker's physical identity by showing a photograph and in terms of social positioning by providing information on the speaker's profession. Context is provided on what the speaker is "doing now"[86] meaning the recorded lecture is placed within a timeline of the speaker's life experiences. The speaker has consented to the recording and subsequent presenting of their words. Finally, the speaker is informed about how the group reacted

[84] A codification is the "cognizable object" (Freire, 115) presented to the group that will be "decodified" through dialogue.
[85] Ibid, 122.
[86]Ibid, 84.

to the lecture, allowing them to change or react to the group's response. This set of practices allows the pre-recorded lecture to be a dynamic part of a radical pedagogy and is a model for how to present pre-recorded lecture content. The series of steps that surround the pre-recorded conversation contain ideas about context, positioning, privacy, and consent. In particular, Freire emphasizes the positioning of the speaker, giving students the space to question the speaker's location or power. Freire models a way of engaging with lecture content that can be applied to the digital environment.

Using narratives and experience as a grounding point of inquiry is part of bell hooks' pedagogical practice. By acknowledging the importance of the body and challenging the traditional dynamic between instructor and student, hooks gives power to the lived experience as a site of knowledge that every person holds. In hooks' classroom, narratives are not just subjective asides or distractions from a lecture, they are valuable resources. Every student is given the space to speak and arrive at complex and critical understandings of the world.

Crucially, it is not just students who are expected to be emotionally vulnerable and present in the classroom, but instructors as well. "Any classroom that employs a holistic model of learning will also be a place where teachers grow, and are empowered by the process,"[87] hooks writes. The classroom can then become a joyful, challenging, and critical space of reflection and growth.

hooks writes about an engaged pedagogy taught by instructors who are "striving not just for knowledge in books, but knowledge of how to live in the world."[88] This means instructors must not only care about ideas, abstracted from the body, but must

[87] Ibid, 21.
[88] Ibid, 15.

also be “committed to a process of self-actualization that promotes their own well being”[89] in order to be fully present in the classroom. hooks’ pedagogy includes the development of a mutually caring learning environment where each participant is aware of their “responsibility for the development of a learning community”[90] and part of this means students are encouraged to “talk back” to the instructor.[91] She writes, **“**the exciting aspect of creating a classroom community where there is respect for individual voices is that there is infinitely more feedback because students do feel free to talk - and talk back.”[92]

An additional element of an embodied teaching practice, according to hooks, is a commitment to pleasure and joy. “To emphasize the pleasure of teaching is an act of resistance countering the overwhelming boredom, uninterest, and apathy that so often characterize the way professors and students feel about teaching and learning, about the classroom experience.”[93] Teaching and learning can be joyful, community-based experiences and hooks’ engaged pedagogy requires attention to the emotional elements of the pedagogical encounter. She writes that “to enter classroom settings in colleges and universities with the will to share the desire to encourage excitement, was to transgress.”[94] Bringing excitement to the classroom was a transgression, hooks writes, in part because it requires flexibility in planning and “spontaneous shifts in direction”[95] rather than rigid pre-determined lesson planning.

[89] Ibid, 15.
[90] Ibid, 206.
[91] Ibid, 42.
[92] hooks, 42.
[93] Ibid, 10.
[94] hooks, 7.
[95] Ibid.

Paying attention to the ways digital tools mediate the pedagogic encounter is to attend to the inherently emotional process of teaching and learning. To think about hooks' and Freire's notions of pedagogy within the online learning tools, means considering how students and faculty are asked to interact with each other and the objects they encounter. Freire gives us a series of useful concepts to explore when examining digital tools: the notion that education humanizes participants via their ability to co-construct the objects of knowledge. The question of hierarchy and roles within the classroom is also crucial to the model that Freire constructs. The work of hooks centers experience, spontaneity, and openness and for this to be possible in the context of the internet, privacy and consent become key factors to the success of eLearning technology.

Sharon Zuboff writes about the "unprecedented"[96] nature of "surveillance capitalism"[97] and how commercial software benefits from individuals' data in ways that could not have been anticipated. For this reason, it is important to bring in another level of analysis that considers the previously "unprecedented" nature of digital technology and the complex construction of surveillance and privacy. Although Freire incorporated lecture capture technology into his classroom, it was not in conjunction surveillance capitalism.

Privacy and context are important because they allow for the kind of openness, spontaneity, and vulnerability that is necessary for hooks' model of pedagogy. To define privacy, Julie Cohen breaks down the concept of the 'liberal subject,' that much privacy

[96]Shoshanna Zuboff, *The Age of Surveillance Capitalism,* (New York: PublicAffairs, 2019), 12.
[97]Surveillance capitalism is a term developed by Zuboff to describe "a new economic order that claims human experience as free raw material for hidden commercial practices" (1).

protection law seeks to protect in favor of a more complex theory of identity that is more in line with hooks' notion of the situated subject. Rather than theorizing a static, pre-cultural subject, Cohen writes about the "situated user."[98] This "situated user" exists within their cultural context. Subjectivity is therefore not static and changes as the situated user interacts, reacts and engages with cultural objects in what Cohen terms the "play of everyday practice."[99] Cohen suggests that privacy is "boundary management"[100] or the ability to have boundaries between various versions of the self – the self that is a student in an online class vs. the self that goes out with their friends on the weekend, for example. She writes, "When words and images voluntarily shared in one context reappear unexpectedly in another, the resulting sense of unwanted exposure and loss of control can be highly disturbing.[101]

According to Cohen, often surveillance hides itself in digital environments through a core tenet of 'good design,' or seamlessness – design that masks the data the page is collecting and connects user profiles between websites with as few clicks as possible. The ability to use Facebook or Google to log in to an entirely different application, like Yelp or Spotify, is an example of this kind of cross-platform seamless integration. Rather than have everything seamlessly integrated and connected, Cohen argues for gaps or "breathing room"[102] in our digital landscapes. These gaps would mean unconnected identities and therefore different versions of the self would be possible for the different digital environments people inhabit. The disconnect between

[98]Julie Cohen, *Configuring the Networked Self: Law, Code, and The Play of Everyday Practice*, (New Haven: Yale University Press, 2012), 82.
[99]Ibid, 57.
[100]Ibid, 150.
[101] Ibid, 146.
[102]Ibid, 219/

different user profiles would limit the amount of data a single company can collect on an individual. Within the context of online learning, this definition of privacy might mean that students are not expected to use pre-existing personal accounts, including email and Facebook accounts for educational tools.

And finally, a link between surveillance studies, digital culture and hooks' pedagogical theorizing is explored by Simone Browne in her writing on "dark sousveillance" and identity in resistance. In Browne's writing on the legacy of transatlantic slavery and surveillance practices, dark sousveillance refers to strategies of enslaved people to resist the totalizing surveillance of slavery. Dark sousveillance also "is a site of critique, as it speaks to black epistemologies of contending with antiblack surveillance,"[103] she writes. "Dark sousveillance charts possibilities and coordinates modes of responding to, challenging, and confronting a surveillance that was almost all-encompassing"[104] for enslaved peoples. Browne references hooks' writing on "talking back" as "one way of challenging surveillance and its imposition of norms."[105] Browne's work mobilizes "dark sousveillance" as a mode of inquiry to find meaning in resistance. In the world of educational technology, dark sousveillance is visible in how students and teachers, particularly Black students and teachers, resist oppressive models of education and surveillance to build liberatory pedagogical practices.

[103] Simone Browne, *Dark Matters: On the Surveillance of Blackness,* (Durham: Duke University Press, 2015), 21.
[104] Ibid, 22.
[105] Ibid, 62.

Part 4: The Tools

Returning to the notion of the "expected user" and hooks' movement beyond the desk, this section seeks to investigate the types of expected users that are built into the tools using insights gathered from hooks, Freire and Cohen. The tools in this thesis were chosen while I was working as an instructional designer for William & Mary. Each of the tools analyzed are ones that I trained faculty to use and implement. As I have written this thesis balancing my identities as both a practitioner and a graduate student, this section provides the space to closely examine tools that were part of my daily practice. The method of inquiry is inspired by the work of Stephanie Vie in her article "A Pedagogy of Resistance Toward Plagiarism Detection Technologies"[106] where Vie examines the rhetorical strategies of plagiarism technology as a way of developing models of resistance. Evan Davis and Sarah Hardy, in their webtext "Teaching Writing in the Space of Blackboard," write about "Walking through Blackboard."[107] Drawing from Michel de Certeau's writing about the city, Davis and Hardy emphasize how students' movement around a Blackboard course can create a narrative and illuminate "possible spots of tension between Blackboard's projected expectations and students' actual behavior."[108] As a writing activity, the authors suggest having students trace "one concept or term as it occurs in at least three separate spaces in this term's Blackboard

[106] Stephanie Vie, "A Pedagogy of Resistance Toward Plagiarism Detection Technologies," *Computers and Composition* 30, No. 1 (2013).
[107] Evan Davis and Sarah Hardy, "Teaching Writing in the Space of Blackboard," *Computers and Composition Online*, (Spring 2003), http://cconlinejournal.org/DavisHardy/.
[108] Ibid.

course, and tell the story of that idea as they think it has unfolded."[109] This exercise allows students to develop their own narrative as de Certeau describes, by reading the movement of ideas through the space of Blackboard. This is a useful method of analysis for considering the ways students and faculty move through digital learning tools as it allows for an understanding of the software as it is experienced, rather than how it was intended.

This section begins with the people, or substitutes for people, involved in the online learning process, and then looks closely at digital tools that bring bodies into view (via the camera) to others in digital learning spaces. Alongside the instructional designer, another person, or substitute for a person, that emerges via an eLearning tool is the online proctor. In the United States, a proctor is "one appointed to supervise students (as at an examination)."[110] The word "proctor" derives from the Middle English word "procutour" meaning "one who acts in another's place."[111] This origin is fitting because the test proctor, considered separately from a teacher or administrator, does not set the rules herself but enforces rules set by someone else. Like a substitute teacher, a proctor often enters a classroom of unfamiliar students, ready to enforce someone else's rules.

If, as Lauren Berlant describes in her essay "Cruel Optimism," a substitute teacher is "by definition, a placeholder, a space of abeyance, an aleatory event," [112] a test proctor is a different sort of placeholder. Rather than a space of abeyance, a

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[109] Ibid.
[110] Merriam-Webster Online, s.v. "proctor," accessed July 2, 2020, https://www.merriam-webster.com/dictionary/proctor.
[111] Middle English Dictionary, s.v. "procutour," accessed July 2, 2020, https://quod.lib.umich.edu/m/middle-english-dictionary/dictionary/MED34788
[112] Lauren Berlant, "Cruel Optimism," in *The Affect Theory Reader,* ed. By Mellissa Gregg et al., (Duke University Press, 2010), 114.

proctor creates a space of rigid expectations and control. Berlant writes that the substitute teacher "enters [students'] lives as a new site for attachment, a de-dramatized possibility."[113] A proctor is a kind of substitute teacher but is a site of immediate and direct surveillance. As Berlant points out, students are often "cruel to substitutes […] out of not having fear or transference to make them docile."[114] Students cannot be cruel to test proctors because proctors have the power to punish students who do not conform to the rules of the test. Elizabeth Losh notes that in some ways, a MOOC (Massive Open Online Course) is the "ultimate substitute teacher" offering "a video deliverable serving as a remote proxy for live teaching at scale."[115] The proctor is yet another kind of substitute teacher, in this case a proxy for a set of administrators who are invested in ensuring tests are administered under similar conditions across contexts. Recalling Julie Cohen's writing on privacy as the ability to maintain situational context, the proctor flattens individuals' contexts in order to ensure "fairness". The test proctor does not administer the test according to a set of principles co-developed with the students in the classroom but follows a set of predetermined rules that maintain fear and suspicion.

Simone Browne, writing about the ways black women are surveilled while at the airport, describes the airport as

> [N]ot merely a transportation space marred with the occasional indignity and pat down, but also a space that demands what Mark B. Salter calls a 'confessionary complex' that sees to it that the traveler recite a certain truth through rituals and customs, and increasingly to express this truth by way of biometric encoded travel documents that are said to reveal a truth about a person's identity despite what that person claims.[116]

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[113] Ibid.
[114] Ibid.
[115] Elizabeth Losh, *MOOCs and Their Afterlives,* (Chicago: University of Chicago Press, 2017), 219.
[116] Simone Browne, *Dark Matters: On the Surveillance of Blackness,* (Durham: Duke University Press, 2015), 135.

Browne writes about “flying while black” and the ways that Black women are subject to gendered and racial harassment during air travel.[117] Bodies and body parts that are marked as non-normative – including Black women’s hair – are subject to increased surveillance. These rules are performatively enforced in what Browne terms “security theater”[118] that enacts surveillance in part as a way of demonstrating the ways that the United States is combatting terrorism. Similarly, the proctor often performs a theater of surveillance – demanding students’ submission to a set of rules through rituals and documents in exchange for academic credit. In order for students to achieve credit, they must submit to whatever the proctor asks of them or risk being marked as a cheater. Comparing the proctor to the surveillance of the airport demonstrates the violence of demanding proper self-representation.

This kind of violence is visible in Mattie Brice’s autoethnography on “catfishing.” A catfish presents a body online that does not align with the body they have in ‘real life’ and Brice questions this definition of authenticity online, saying that in the online dating world “being trans makes you an automatic catfish."[119] This is because unless Brice adequately discloses that she is trans - often in multiple locations on her dating profile - she is banned from dating apps like Tinder for not properly representing her identity online. Brice’s transness makes her subject to increased surveillance and removal from various digital apps. Transferring this insight into the context of online learning, online

[117] Ibid, 137.
[118] Ibid, 131.
[119] Mattie Brice, “Catfishing in 3 Acts,” paper presented at Theorizing the Web 2018, New York, June 2018.

proctoring systems are tools that demands students be who they say they are which is not as simple as it sounds.

The proctor's presence is justified by a widespread fear of cheating within academia. Fear of cheating is not unique to online courses but takes on a certain urgency in the digital environment. Rebecca Moore Howard writes of "the specter of 'internet plagiarism'" that "threatens to undo the entire educational enterprise."[120] The fear of cheating underlying online courses is often about the possibility of "ghostwriters" or hired professionals "who complete online tests, write term papers, or even take entire courses on behalf of others."[121] Online proctoring technology is supposed to ensure that students are not reading from notes or searching the web for answers to exams. Surveillance in the form of online proctoring systems, marks users who stand out – including users who are gender non-conforming (and therefore may not match their ID cards), students who are undocumented (and may not have IDs), or students who do not have access to quiet rooms to take tests.

In a study where 582 participants were "randomly assigned to a webcam proctored or honor code condition" and asked to complete two cognitive ability tests online,[122] the authors found "remote proctoring may decrease cheating, does not affect test performance, and results in increased pressure and privacy concerns."[123] The remote proctoring service *may* have decreased cheating, but had to be balanced with

[120] Rebecca Moore Howard, "Understanding 'Internet plagiarism'," *Computers and Composition* 24 (2007): 3.
[121] Elizabeth Fisher et al., "Ghostwriters in the cloud," *Journal of Accounting Education* 34 (2016): 59.
[122] Michael N. Karim, Samuel E. Kaminsky and Tara S. Behrend, "Cheating, Reactions, and Performance in Remotely Proctored Testing: An Exploratory Experimental Study," *Journal of Business and Psychology* 29 (2014): 556, doi: https://doi.org/10.1007/s10869-014-9343-z.
[123] Ibid.

concerns that the proctor would increase students' anxiety and the ethical storage of their personal data.

Proctorio

To provide a case study, this analysis looks specifically at one tool called "Proctorio." According to Proctorio's website, it has been used in over 400 institutions and with over 500,000 test-takers.[124] Using artificial intelligence, Proctorio tracks students' eye movements, records noises in their environment, and catalogues students' web traffic data. The service then provides a report to instructors called an "integrity report" that includes webcam footage of the student taking the exam (with audio), a screen recording of the student's screen while taking the exam and a "suspicion level" based on their facial movements and computer activity.[125]

Proctorio requires students to use Google Chrome and is then installed as a plugin on the Google Chrome browser. The software then records and monitors students while they take an exam according to the instructor or test administrator's specifications. The requirement to use a specific browser means that students must agree to the terms and conditions of the software itself as well as those of Google Chrome to use the tool. This requirement introduces another level of surveillance into the online classroom. Rather than giving students the option to use a browser that best suits their privacy needs, students are required to use Google Chrome. The other tools examined in this thesis do not require a specific browser to run, giving students more

[124] "About." Proctorio, accessed July 2, 2020, https://proctorio.com/about.
[125] "Canvas Demo V3," Proctorio, February 8, 2018, video, www.youtube.com/watch?v=51s51NQEgjM&feature=youtu.be+.

choice about how they move through the internet and access online tools. As Julie Cohen writes, “surveillance is not heavy-handed; it is ordinary, and its ordinariness lends it extraordinary power.”[126] The requirement to use a specific browser is mundane and normalized, but requiring students to use a certain browser tells students that they cannot be in control of how they interact with the internet.

A brief exploration of Proctorio’s founder’s goals and the software’s history provides context on the ideological underpinnings of the software itself. Mike Olsen, Proctorio’s founder, said that he was inspired to develop Proctorio because he found that “too often students were matriculating into higher division courses without the required knowledge, which resulted in further attempts at academic dishonesty and ultimately, low retention rates.”[127] Proctorio offers a “solution” to these fears without what Olsen calls “expensive and cumbersome” in-person proctoring.[128] Rather than considering the structure of courses that rely on a series of exams to demonstrate mastery, Olsen places the blame on the students themselves.

When a student takes an exam through Proctorio, the student can be required to hold their ID up to the camera. In some versions of Proctorio, the ID is then immediately checked by a Proctorio team member to ensure it matches the student’s face. In other versions, this is simply recorded and made available for the instructor to check that someone else is not taking a test for a student. Matching an identity card is what makes a student an identifiable human to Proctorio’s technology. This matching is not (yet) checked by artificial intelligence, but the rest of the proctored exam does use artificial

[126] Julie Cohen, “What Privacy Is For,” *Harvard Law Review* 126 no. 7, (2013).
[127] George Nantwi, “Mike Olsen,” *Gottesman Libraries* (blog) February 2, 2018, https://edlab.tc.columbia.edu/blog/18706-Mike-Olsen.
[128] Ibid.

intelligence to monitor the student. While students take the test proctored by Proctorio, artificial intelligence technology tracks their eye movements and listens for loud noises or the rustling of papers. After the exam is over, the software sends the instructor a report listing any suspicious activity that occurred during the exam according to a range of metrics. Proctorio is a non-human that monitors the legitimate presence of human behavior. Safiya Noble, writing about the way information is classified and made accessible on internet, writes "We have to ask what is lost, who is harmed, and what might be forgotten with the embrace of artificial intelligence in decision making."[129] Noble was writing about how search algorithms often classify information in racist and sexist ways, while representing their classifications as neutral. The idea that artificial intelligence is neutral or objective, must be "directly challenged as a misnomer,"[130] she writes.

In the case of Proctorio, the lack of neutrality is visible in the ways that students who fall outside of Hamraie's "normate template," as imagined by the creators of Proctorio are at risk of being flagged by the technology.

The following post from Reddit explores one of the cases where a student with an access need might be flagged:

> So I recently just finished an exam using proctorio for the first time and I'm extremely nervous it flagged me a ton of times. I'm severely ADD (I have accommodations and my professor knows) and I tend to stare at things other than my test. [...] I'm honestly considering emailing my prof and asking to take the exam in our university's testing center, so then I can do my weird ADD ticks and not worry that someone thinks I'm cheating…[131]

[129] Safiya Noble, *Algorithms of Oppression,* (New York: NYU Press, 2018), 14.
[130] Ibid, 108.
[131] u/GalacticSpaceTrash, "Proctorio help?," r/college, Reddit, June 27, 2019, https://www.reddit.com/r/college/comments/c6dshm/proctorio_help/

A commenter responded:

> My last proctored exam they kept getting mad at me about the angle of my camera - but I am tall and I couldn't see the fucking test if the screen was angled to catch my face/shoulders/torso. So I kept ducking low to read the screen.[132]

These concerns reveal the "normate template" created by Proctorio. The software takes on an omniscient role as it marks "suspicion levels" leaving students in the dark about how these decisions are made. In the first comment the student refers to Proctorio using the pronoun "it" and in the second comment the student uses "they," revealing the lack of clarity about who or what is monitoring students. The commenter that uses "it" to refer to Proctorio, is worried that their behaviors may have been flagged but was not directly "reprimanded" by the software to adjust their behavior. The second commenter was told by the software to adjust their computer screen and therefore interacted directly with the software. These two different interactions resulted in two different understandings of who or what was monitoring them. The distance that is created between student, software, and instructor keeps students unaware of how their recordings are being interpreted and in doing so creates a deeper division between student and teacher.

The first commenter worries that the technology will flag eye movements and ticks. The comment demonstrates the anxiety and uncertainty the proctoring software gives students who need to move around during a test and the lack of recourse they have when they feel the software may have miscategorized their movements. Although the student's professor knows the student needs test accommodations, the software

[132] u/MableXeno, "Proctorio help?," r/college, Reddit, June 27, 2019, https://www.reddit.com/r/college/comments/c6dshm/proctorio_help/.

does not. The second commenter's body was not easily visible in the camera and had to be modified in order to be properly surveilled. These two experiences describe minor disruptions to the test taking process but demonstrate a larger structural problem in a software that imagines bodies to look, move and act a certain way.

Considering bell hooks' writing on "talking back," and the importance of having space to provide critical feedback, these two commenters demonstrate their inability to intervene or communicate with the software. There is no meaningful method for the student to "talk back," to criticize the proctoring software or to explain their circumstances, without being marked by the software itself. The Reddit thread demonstrates the students' need to go elsewhere, outside of their online course, to discuss their experiences and provide critical feedback.

Proctorio attempts to mitigate questions of troubling artificial intelligence bias by passing responsibility onto the faculty members reviewing the exams. When Proctorio is incorporated into a course, students receive a message from Proctorio that includes the following text:

> Proctorio isn't a creepy person staring at you through a webcam. Instead it's a system of computers that keep an eye on you while you take the test. Computers are great because they are unbiased and don't mind working long hours. [...] Feel comfortable taking your exams at home and even in your pajamas. Only your professor and school admins have access to recordings. Yes, you are being recorded, so try not to do anything embarrassing.[133]

This statement positions Proctorio as a friendly system of computers that keeps an eye on students as opposed to a creepy person staring through a webcam. In this comparison, the watchful eye of a computer is not as frightening as the eyes of a

[133]"Example Proctorio Quiz," City College of San Francisco, accessed July 2, 2020 https://ccsf.instructure.com/courses/16530/quizzes/32302

person. Strikingly, Proctorio claims that “computers are unbiased and don’t mind working long hours” perhaps as opposed to the looming figure of the proctor who may have biases and the need to rest. Proctorio equates technology with neutrality and presents a series of assumed definitions regarding what constitutes “creepy,” “comfortable,” and “embarrassing.”

Having witnessed many professors make the decision to incorporate Proctorio into their course based on fears or experiences of student cheating, the software itself encourages instructors to turn on as many surveillance tools as possible. As an instructor and I would move through the various options, I would see the instructor begin to imagine all the different ways that a student could cheat. In this way, Proctorio creates the object of surveillance because it defines the scope conditions that constitute cheating or suspicious activity.

What instructors see when deciding what security features to enable as of the spring of 2019 when I took this screenshot:

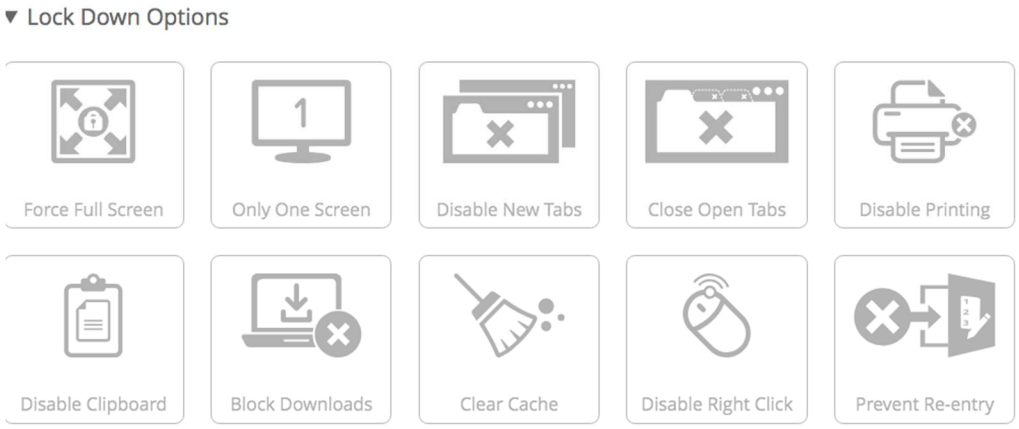

Figure 1: a 4x2 grid labeled “lock down options.” The options are “Force Full Screen,” Only One Screen,” “Disable New Tabs,” “Close Open Tabs,” Disable Printing,” Disable

Clipboard," Block Downloads," "Clear Cache," "Disable Right Click" and "Prevent Re-entry." Each option is accompanied by a simple drawing illustrating what the option entails.

If an instructor doesn't disable right clicking, that might enable a student to cheat on an exam. If they don't lock down a student's screen, that might allow a student to cheat. Often, what instructors didn't realize is as they continue to select options, they are also requiring students to have additional technology: working webcams, working microphones, quiet spaces where they can sit uninterrupted, identification cards, and even a movable laptop computer (so they can show the camera a sweep of their surroundings) to take an exam.

Once an instructor starts to use Proctorio, they are encouraged to keep using it. Proctorio creates a relationship of tracking and surveillance between instructor and student and demands a simple relationship between bodies and identification cards. The students' bodies are brought into the online learning classroom as objects of surveillance and suspicion. Rather than supporting a relationship of mutual trust, Proctorio puts the instructor in the position of policing student activity and identity.

Proctorio engages actively with surveillance and informs students of the modes in which they will be tracked. When using Proctorio, students are aware that their movements are being recorded and possibly flagged as suspicious by the artificial intelligence. Unlike other software, Proctorio is forced to engage actively with student worries about surveillance and market itself in a way to alleviate student and instructor worries about privacy. Other eLearning tools also engage with these themes, but often is less explicit ways. To explore this, this thesis looks at a tool called Panopto.

Panopto

Panopto is a video management tool – users can record videos directly through Panopto and also can upload videos to Panopto. Panopto stores videos and allows users to manage viewing permissions for the videos. As an instructional designer, Panopto was a tool I used frequently. Panopto was rarely used as a stand-alone tool, but often worked in conjunction with a learning management system. Each video uploaded into Panopto would be associated with a specific course within Blackboard, William & Mary's LMS, and video watching and sharing permissions would then be automatically assigned based on the course it was associated with. This system resulted in a fair amount of problems with viewing permissions.

In an article analyzing technological issues faculty encountered when transitioning to a new LMS, Mapopa William Sanga found students had trouble recording videos in Panopto. Sanga writes "the instructor had actually made the settings in such a way that only teachers could create projects. This made sense in the context, considering that the University had purchased licensing for the application primarily for lecture capture and for student view."[134] Panopto videos tend to be more formal and are often uploaded by an instructor or instructional designer for students to view. Looking at the sample lecture videos available on Panopto's website[135] the instructors are dressed in professional clothing; they are well-lit and deliver lectures with few mistakes.

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[134] Mapopa William Sanga, "An Analysis of Technological Issues Emanating from Faculty Transition to a New Learning Management System," *Quarterly Review of Distance Education* 17, no. 1 (2016): 18.
[135]"Sample Video, "Panopto, accessed July 3, 2020 https://www.panopto.com/resources/video-recordings/.

According to Panopto's website, Panopto was founded in 2007 at Carnegie Mellon University by a team of researchers and is "the largest repository of expert learning videos in the world" with almost 11 million videos uploaded.[136] Panopto provides services to companies like Slack and Nike and also to medical centers, banks, and universities.[137] Panopto is a commercial entity. On Panopto's website there is an easily accessible page of "ROI [return on investment] calculators."[138] One calculator is provided to answer the question: "How Much Are You Losing By Failing to Share Knowledge?"[139] The calculator tool estimates the amount of annual money lost to "delays in sharing knowledge"[140] that supposedly could be mitigated by a company's use of Panopto. I point this out to emphasize the commercial motivations of Panopto as context for how the software might construct a pedagogical space. Every person listed on the "Company Leadership"[141] page of the Panopto website is white and there is only one woman out of the eleven people listed. It is important to pay attention to the people in leadership roles not to essentialize their identities, but to provide context for digital tools and re-emphasize Safiya Noble's point that technology is not neutral. She writes that the "systematic and inequitable employment practices" of tech companies cannot be separated from the racism and sexism present in the output of their products[142] and

[136]"Panopto Announces," Panopto, last modified December 4, 2019, https://www.panopto.com/about/news/panopto-announces-12th-consecutive-year-of-record-breaking-growth/.
[137]"Your Peers Use Panopto," Panopto, accessed February 23, 2020, www.panopto.com.
[138]"Calculators," Panopto, accessed July 3, 2020 https://www.panopto.com/resources/calculators/.
[139]Ibid.
[140]Ibid.
[141]"Company Leadership," Panopto, accessed July 3, 2020 https://www.panopto.com/about/leaders/.
[142] Safiya Noble, *Algorithms of Oppression,* 2.

racism and sexism in the tech world extend from "employment practices to product design."[143]

One immediately intriguing part of the tool is its name: Panopto. Bentham's panopticon, as described by Michel Foucault, is a circular prison where the cells are arranged around a cylindrical watchtower. The cells are backlit so a guard standing in the watchtower can easily monitor the prisoners' movements, while the prisoners cannot tell where the guard is standing in the tower, "hence the major effect of the Panopticon: to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power."[144] Rather than shy away from any negative associations with the all-seeing surveillance machine, Panopto embraces them through its marketing. In an anonymously written blog post on their website titled "Hi, my name is Panopto," the unnamed writer explains the company's name: "In video, the panoptic view is the one that allows the viewer to see everything at once. Our mission at Panopto is to democratize knowledge sharing with video." The post also says:

> Students watching a college lecture can see the professor, their slides, and the whiteboard in a single view. Medical professionals watching a recorded surgery can see every step performed from multiple camera angles. Employees watching a town hall event from around the world can see the CEO, their PowerPoint slides, and product demonstrations as though they were sitting in the conference room. With Panopto, any idea – big or small – can be easily recorded, shared, and watched from any device. [145]

The company reframes an all-seeing viewer as part of a democratic engagement with video content. The panoptic view in this instance is framed as one where those with less

[143] Ibid, 66.
[144]Michel Foucault, *Discipline and Punish,* (New York: Vintage Books, 1995), 205.
[145]"Hi My Name is Panopto," Panopto, accessed July 3, 2020 https://www.panopto.com/blog/hi-my-name-is-panopto/.

power – employees, students – watch figures of power, almost like Simone Browne's definition of dark sousveillance. Of course, what the company doesn't mention is that while students are watching videos, the software is watching them back and tracking their engagement. In this way, Panopto engages in a form of surveillance that is similar to what Siva Vaidhyanathan describes as the nonopticon: "the nonopticon describes a state of being watched without knowing it, or at least the extent of it."[146] Rather than overtly stating the nature of its surveillance techniques, Panopto software covertly tracks and times the minutes each student spends watching each video. Panopto provides information to instructors and administrators (without students' knowledge) on time spent on each video and lets instructors choose whether or not to disclose this access, reinforcing an unbalanced dynamic between instructor and student, all while marketing the software as a way for students and employees to watch authority figures.

It is possible that the lecture videos presented through Panopto that students watch each week in an online course were recorded weeks before the start of the class. An instructor recording a video can acknowledge their body and the labor of physically recording the video but depending on when the video is delivered to students, the students will have a different temporal relationship to the content particularly if the same video lectures are used year after year. One year instructors might swap out some videos for newly recorded ones. Students going through the course might note a difference between the lectures: they might see a professor grow older through the videos; they might see a different professor entirely in some of the lectures. And, it is possible that the video lectures a student watches were recorded by a previous

[146]Siva Vaidhyanathan, Naked in the 'Nonopticon,'" *The Chronicle of Higher Education*, February 15, 2008, www.chronicle.com/article/Naked-in-the-Nonopticon/6197.

instructor that is no longer involved in the course at all or even no longer a member of the institution's faculty. If a student isn't made aware that the person guiding them through the online course is different from the person they are watching in lecture videos, the body of the facilitator is made invisible, and the technology makes instruction a replaceable commodity.

Panopto's instruction sheet titled "How to Batch Copy and Move Sessions," explains how to move multiple lecture videos from one course to another. The page reads, "Administrators can always move and copy multiple videos. Creators can move multiple videos but can only batch copy videos if their Administrator allows it."[147] By checking boxes next to lecture videos, administrators can copy or move the videos into different online courses with ease. This is significant because it contains the notion that lecture videos are objects that can be batched and moved between courses, quite possibly removed from their original context and then placed into an entirely new context. When a video is copied, there is no information provided to students about where the video came from and faculty or instructional designers have to provide this separately if desired. Moving videos between courses in and of itself is not necessarily problematic and may be necessary for a number of reasons. However, it demonstrates that videos instructors create can be moved and copied without their permission. In my experience as an instructional designer, instructors have specifically asked to remove dates from the background of their video lectures to make the video a timeless object and to encourage students to think the video was recorded specifically for them, not for students the year before or the year before that. At the same time, other instructors

[147]"How to Batch Copy and Move Sessions," Panopto, accessed July 3, 2020, https://support.panopto.com/s/article/Batch-Copy-and-Move-Videos.

have pushed back against this 'timelessness' of the video lecture and taken care to specifically communicate to students when and where the videos are filmed, with yearly updates on how things have changed since the filming. These types of updates require working around Panopto and writing text notes above the videos (outside of Panopto entirely) to explain the context year after year. In its erasure of context that cannot be mediated using the software, Panopto creates a timeless "lecture-object" ready to be placed in any course at any time.

In Panopto, users are categorized into one of five roles: "Administrator," "Departmental Administrator," "Videographer," "Creator," "Assignment Folder Users," and "Viewers."[148] The first four roles ("Administrator," "Departmental Administrator," "Videographer," "Creator") can access viewing statistics and analytics whereas "Assignment Folder Users," and "Viewers" cannot. Users with less access are not made aware that others can compile detailed statistics on their watching time. Meanwhile, administrators are presented with pre-calculated metrics about which videos are watched the most, which students are watching the videos most consistently, among other data that pre-populates when an administrator navigates to the correct tab.

These aspects of Panopto reinforce hierarchical relationships where students not only do not have access to the same information that instructors do but are also not made aware that information about their viewing is being collected and provided to instructors. Rather than humanizing participants, as Freire's pedagogy seeks to do, Panopto turns users into easily legible statistics that divorces them from their individual contexts. The videos in Panopto are presented without clear reference to the date they

[148] "How to Change Roles," Panopto, accessed February 24, 2020 https://support.panopto.com/s/article/user-permissions-0.

were recorded, requiring instructors to work around the software to provide proper temporal context to the video content. Users have the ability to comment directly on videos, and this could potentially serve as a way to communicate to the speaker directly about the content. The commenting feature can also create space for a peer-to-peer discussion on the video content and therefore creates a space to critique and engage actively with the otherwise static lecture videos. However, participants are limited in their ability to co-construct knowledge when using Panopto because they are not provided with all the information they need to question the structures of the platform.

FlipGrid

The final tool this thesis will examine is called "FlipGrid", another video discussion tool. FlipGrid provides a point of contrast with Panopto because rather than center instructor made content, the software is designed for students to upload short videos of themselves. FlipGrid gives students the ability to record short videos in response to questions their instructor posts. Students can then watch and respond to their classmates' posts. FlipGrid was invented in a university context, like Panopto, by University of Minnesota professor Charles Miller in 2012. Miller was looking for a way to stay in touch with his graduate students while traveling and developed the app. In 2018, Miller sold the company to Microsoft for an undisclosed amount.[149] Although FlipGrid was designed for graduate students, it has since been branded for use in the K-12 classroom and its website has a lot of bright colors, flashy fonts and encouraging GIFs.

[149] Emily Tate, "Microsoft acquires classroom video platform Flipgrid," *Edscoop*, June 18, 2018, https://edscoop.com/microsoft-acquires-classroom-video-platform-flipgrid/.

A University of Minnesota 2015 Ph.D. dissertation by Matti Koivula, whose dissertation advisor was Charles Miller (the founder of FlipGrid) investigated the use of FlipGrid in five separate fully online undergraduate classes[150] to see how the tool affects students' sense of community. Koivala found through student interviews that students appreciated seeing and hearing their classmates' faces and voices. The physical background of the videos also provided contextual information about students in the class that otherwise wouldn't be available to them. Karen Strassler, a professor at Queens College, writes about the additional context that appears on the video conferencing screen:

> I like knowing that this student drinks tea from a big ceramic mug, while that one seems to be good with houseplants. But I'm also aware that these glimpses into my students' homes violate the implicit contract of the classroom, where students have some measure of control over what parts of their lives outside of school come into view.[151]

Strassler writes that the backgrounds of students' videos make visible personal and otherwise private elements of the students' lives and that this is a cause for concern namely because of the lack of student control over what might be in the background of their videos.

In the case of FlipGrid, Koivula found that students felt uncomfortable sharing private or personal information through the software because they didn't know how their data was being stored or shared. Koivula found that some students "wanted to share personal information and examples but did not do so because they were concerned

[150] Matti Koivula, "The Impacts of Asynchronous Video Reflection on Perceived Learner Social Presence," (Ph.D. diss., University of Minnesota, 2015), iv.
[151] Karen Strassler, "What We Lose When We Go From the Classroom to Zoom," *The New York Times,* May 4, 2020, https://www.nytimes.com/2020/05/04/sunday-review/zoom-college-classroom.html.

about the site not having any password authentication."[152] Koivula writes, "The concerns that were expressed were not associated with classmates seeing the videos but with people not in their class seeing them."[153] Students felt wary of being open in discussion videos because they worried their videos might escape the context of the online course. One student told Koivula, "My recordings could technically be seen by anyone on the Internet. So depending on the topic my opinions that would be very relevant to this class I don't know if I would want that out in public…"[154] Koivula writes, "a couple of participants said that they wanted to share examples of their life outside the course but did not do so because technically anyone could see their videos and that would not be something that they were willing to risk."[155] In an online classroom using FlipGrid, the surveillance infrastructure of the internet shapes the way students engage with the online course and FlipGrid. Because the Internet is a space of surveillance both by governmental and commercial entities, experience online is mediated through users' sense of constant surveillance whether or not someone is actually watching. The videos students in Koivula's study produced using FlipGrid were publicly available and students weren't made aware of what would happen to the videos after the course ended. This meant that their privacy concerns came in the way of open and intimate conversations and had tangible effects on the way students participated. The kind of digital interactions possible through FlipGrid were limited by privacy concerns unique to commercially owned online and digital platforms where data can remain for undetermined lengths of time. hooks' model of open discussion, where students and

[152] Ibid, 87.
[153] Ibid, 76.
[154] Ibid, 77.
[155] Ibid.

instructors share intimate and personal experiences, was limited by the lack of certainty around privacy.

FlipGrid and Panopto each have a set of predetermined user types that grant users different levels of awareness of the software's capabilities. Examining these categories provides insight into the expected users built into the software and the kinds of relationships the tools encourage and allow for. Generally speaking, both Panopto and FlipGrid have two main types of expected users: "administrators/teachers" and "students." Each user category is given access to specific elements of the software. In FlipGrid, the three user profiles are "grid owner," "co-pilot" and "student." As a grid owner, a user can grade and comment on videos. A grid owner can also share student videos using a URL that is viewable by anybody with the link, whereas a student user cannot share videos and is not made aware that grid owners can.

In both Flip Grid and Panopto, the perspective of each user is carefully crafted to maintain a separation between students and administrators not only in terms of surveillance but also in terms of knowledge about that surveillance. In both of these examples, there is no clarity for students regarding who is behind the scenes of the online course, who has access to students' grades and records, and who is organizing the way students access the course content.

When using Panopto and FlipGrid, students are placed into a user category that is separate from the user category given to administrators. Once placed into this role, students and instructors have little ability to fluidly move between user positionings and when placed into a user group with less access, the user is not explicitly given information on the additional user types or the information that is accessible to those

users. This positioning of the video creators, administrators, and viewers is at odds with the Freirean model of shifting subject positionings. These user roles create static positionings that cannot be changed without administrator intervention. Freire writes, “In problem-posing education, people […] come to see the world not as a static reality, but as a reality in process, in transformation.”[156] These kinds of user positionings present a world to students that is opaque and difficult to change. Additionally, students are not given the opportunity to consent to the viewing metrics and analytics that are gathered on their viewing habits, further differentiating between the student and administrator user roles. In FlipGrid, students are also placed into pre-determined user categories, with varying access to the software content. Student users’ privacy is severely impinged upon in FlipGrid through the feature that allows “grid-owners” and “co-pilots” to share “student” videos without student’s permission or knowledge.

This analysis of FlipGrid and Panopto reveals how software constructs relationships of power and in doing so limits instructors’ ability to build a liberatory pedagogy with regards to ownership, surveillance, privacy, and contextual positioning. Examining the financial background and ideological positionings of tools incorporated into digital classrooms exposes some of the assumptions that contextualize the tool. Instructors of online courses should investigate the backgrounds of tools they implement into the classroom and the ways those tools might be collecting data on their students and affecting their pedagogical goals.

[156] Freire, 86.

Conclusion

This thesis began with a discussion about expected users, bodies, and normate templates. Just as the built environment contains expectations about the kinds of bodies that use it, the digital environment also demands certain kinds of relationships, conversations, and movements. In this analysis, the hidden presence of administrators, the covert tracking and monitoring of student activity was found across the online learning technology analyzed in three eLearning tools.

I came to this topic as a practitioner, observing the ways that students and faculty interact with online learning technology. In this thesis I hoped to illuminate some of the categories that become static through these learning tools and provide a method for investigating the digital tools that are brought into the classroom. While a hooksian or Freirean pedagogy may not be entirely possible in the digital world, increased attention to the ways in which imbalances are created and maintained across different tools used in the online classroom, the way tools interact with each other, and the way students, administrators and faculty interact are all key to building a critical understanding of the online classroom.

There are many areas for additional research particularly in light of COVID-19 and the widespread shift to online learning across the United States. Areas for additional research include exploring the spaces for students to “talk back” to both the software and their instructors, where and how “normate templates” are challenged and subverted, the kinds of habits daily interaction with online learning tools encourages in students and faculty, how students and teachers are successfully creating engaging online learning environments, what positive collaborations between instructional

designers and faculty look like, and how instructional design theory influences on/line learning tools.

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