Videoconferencing platforms like Zoom have been essential to U.S. colleges and universities in migrating from in-person and hybrid classrooms to fully online learning in response to the COVID-19 pandemic. The synchronous connection of cloud-based streaming allows some daily activities of higher-ed to continue; yet, Zoom has faced criticism for surveillance and data extraction, privacy and security issues, platform control of content, and as contributing to infrastructural divides. Drawing from critical media studies and surveillance studies approaches, I examine the issues of videoconferencing platforms like Zoom as compositions of platform, infrastructural, and capitalist surveillance. Despite the oft-promoted benefits of these platforms, critical attention must be paid to the highly problematic inherent surveillant dimensions of partnerships between higher-ed and big tech to ensure the protection of students, employees, and faculty. Specifically, the rapid adoption of Zoom exemplifies the dangers of surveillant platform infrastructure, as well as how technological “solutions” gain traction in moments of crisis.

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Introduction

Between March and April 2020, U.S. colleges and universities migrated from in-person and hybrid...
classrooms to fully online learning in response to the outbreak of COVID-19. Assisting this transition is the already significant higher education investment in digital platforms, learning management systems, distance learning, and videoconferencing. Specifically, the synchronous face-to-face communication of cloud-based audio-visual streaming platforms such as Zoom, Cisco Web-Ex, Microsoft Teams, and Google Meet are increasingly crucial in facilitating the continuation of quotidian activities of university life via “virtual” classrooms, conferences, faculty meetings, and thesis and dissertation defenses. As of late 2021, many aspects of in-person campus life and operations have returned, in large part due to vaccination and safety protocols; at the same time, it is clear that videoconferencing has made an indelible mark on higher education through synchronous online course offerings as well as Web-mediated meetings and advising. As with any major societal moment of crisis there is no “going back to normal” — only the process of becoming what’s next.

The plethora of options notwithstanding, Zoom has quickly become synonymous with videoconferencing in the Western world. Zoom experienced meteoric growth between December 2019 and April 2020 in going from 10 million to 300 million daily meeting participants (Warren, 2020). The platform also self-reports use by 90 percent of U.S. universities (Warren, 2020). Zoom has also been subject of negative press coverage—primarily over issues of “Zoom bombing” harassment (Redden, 2020; Wood, 2021). Other concerns include “Zoom fatigue”, which occurs due to “excessive amounts of close-up eye gaze, cognitive load, increased self-evaluation from staring at video of oneself, and constraints on physical mobility.” (Bailenson, 2021)

While these apprehensions are worthy of attention and consideration, there are a multitude of pressing concerns about Zoom use by institutions of higher education that have received far less attention during this crisis: the platform’s misleading claims of end-to-end encryption (Marczak and Scott-Railton, 2020; Lee and Grauer, 2020); sharing and selling user data (Lyons, 2020; Brooks, 2020); recording and leaking video calls (Hodge, 2020); and routing video calls globally (Whittaker, 2020). These technical aspects of Zoom might not be as viscerally shocking as Zoom Bombing nor as affectively relatable as Zoom fatigue; nevertheless, these issues represent immense challenges for a post-pandemic higher education system increasingly reliant on big tech platforms.

In outlining the importance of critical perspectives in studying COVID-19 surveillance, French and Monahan (2020) explain that forms of disease surveillance entail a host of strategies that permeate institutional, organizational, governmental, and personal life, including lateral, self, participatory, and social surveillance, as well as self-tracking. While massively increased usage rates of videoconferencing platforms like Zoom in higher education institutions during the pandemic are not specific to tracking disease, the issue is relevant nonetheless to the growing reach of big tech platforms in relation to crisis. When it comes to the ways in which digital platforms become embedded and essential infrastructures of everyday life, it is critical to reject simplistic narratives: COVID-19 did not “cause” higher ed to rely on videoconferencing platforms like Zoom. Instead, global pandemic functioned as crisis that served to accelerate already existing trends of platform, infrastructural, and capitalist surveillance (Zuboff, 2015; Hall, 2016; Smieck, 2017; Murakami Wood and Monahan, 2019). Stated differently, the advancing scope of third-party big tech platforms is certainly not entirely new for university life (Slade and Prinsloo, 2013; Selwyn, 2019; Williamson, 2021a; Castañeda and Williamson, 2021); however, the accelerated logics of the platformization, data extraction, and surveillance of the university due to the crisis landscape of COVID-19 requires critical examination. As explained by van Dijck, et al. (2019), investigating the growing power of platforms and how best to address associated issues first requires “a more precise analysis and nuanced assessment of how the integrated ecosystem of platforms functions.” [1] To this end, it is important to consider not only the oft-promoted benefits of these platforms, but also the highly problematic surveillant dimensions of partnerships between higher ed and big tech in order to ensure the protection of students, employees, and faculty.

In the following paper, I briefly contextualize the rise of videoconferencing as part of lineage of crisis-driven capitalism before examining the interrelated aspects of surveillance and data extraction, as well as how scholars have addressed the growing issues of the datafied university. I then examine Zoom in relation to privacy and security issues, platform control of content, and platform-infrastructural divides related to Zoom use in higher education before ending with a with a discussion of the challenges of and questions for
"From the classroom to the cloud": Zoom and the platformization of higher education

The term “neoliberal capitalism” is often reduced to a catch-all for the myriad of socio-political-economic-technological transformations occurring since the late 1970s. To avoid this platitude, some key attributes of the trajectory of contemporary capitalism include deregulation, privatization and private enterprise, embrace of the myth of trickle-down economics, expropriation of the commons, precarity of labor, diversification of the workforce, global migration of labor, weakening of labor unions and collective bargaining, automation of labor, environmental degradation, and the rise of monopoly power (especially regarding big tech) (Harvey, 2005; Huws, 2014; Dyer-Witheford, 2015; Hardt and Negri, 2009). Critical to this landscape is the promotion of “unconscious” over “conscious” processes via the elevation of cybernetic, non-human systems over forms of discursive political engagement and judgement (Davies, 2017). Although many of these capitalist transformations are imbricated in the greater reliance on third-party big tech platforms by higher education generally and the rise of Zoom as go-to videoconferencing platform specifically, the intertwining of crisis, capitalism, and platformization serve to historicize, in part, how Zoom has been able to rapidly gain an integral place in university life.

The experience of crisis is central to the contemporary computational era. Berlant (2011) tracks the experience of “ordinary” as a zone of historical convergence, in which people must manage their lives in the face of threats. Crisis, then, is a state of ordinary that is experienced affectively: “Crisis is not exceptional to history or consciousness but a process embedded in the ordinary that unfolds in stories about navigating what’s overwhelming.” For Chun (2016), new media is different from other media precisely because of crisis as its norm and exception — crises cut through constant streams of information, temporality, and mundanity to offer users a feel of responsibility and empowerment. Crises not only drives the endless optimization of capture systems, but also undo habituation and undermine authority, turning habits into addictions (Chun, 2016). We are increasingly told to trust coded systems and prepare for events of crisis that are beyond these systems — something immanently relatable to higher ed instructors who have experienced Internet disruption and/or platform service disruption before or during a virtual class. Similarly, crisis is key to what Suarez-Villa (2009) terms technocapitalism, a new form of capitalism “heavily grounded on corporate power and its exploitation of technological creativity.” By capturing creativity and knowledge as commodity, technocapitalist corporations, in turn, blur the boundary between internal and external production, which sets the stage for frequent crises (Suarez-Villa, 2009). Taken together, crisis represents opportunity within contemporary digital capitalism by fostering a persistent and disempowering affective relation for the individual that is then exploited by corporate-captured sociotechnical interactions.

Crisis is also critical to contemporary capitalist accumulation. Explained by Huws (2014), the global financial crisis of 2008 — though financially devastating for many workers and families — coincided with a crisis of profitability of international capital that occurred via greater capital concentration, an increase in the number of mergers and acquisitions, a major reorganization of value chains facilitated by trade policies, and the introduction of information and communications technologies that allowed for relocated and remote economic activities (Huws, 2014). However, market saturation and need for expansion reinforced tendencies of the recommodification of the public sector by private businesses via the direct sale of public assets and greater reliance on government contract work. Distilled down, financial crisis presented opportunity for consolidation of power and for the expansion of private industry into formerly public sectors, but also continued the need for new sources of profitability. Explained by Srnicek (2017), in response to a “long decline in manufacturing profitability, capitalism has turned to data as one way to maintain economic growth and vitality in the face of a sluggish production sector.” Here, the platform emerged as model for data extraction in a variety of everyday practices. Platforms, in their most basic sense, are digital infrastructure that enables two or more groups to interact (Srnicek, 2017). Explicated by...
van Dijck, *et al.* (2018), “a platform is fueled by data, automated and organized through algorithms and interfaces, formalized through ownership relations driven by business models, and governed through user agreements.”[6] There exist conventional narratives that platforms have potential to promote fairer markets and economic growth, reduce discrimination and bias, and promote better conditions for workers; nevertheless, the reality is more often a consolidation of power and undermining of growth, retrenchment of bias and possibilities of increased discrimination, and low-pay, reduction of benefits, and the greater precarity for workers (Pasquale, 2016). Although platforms take a number of different forms — extracting data to enact targeted advertising, providing cloud infrastructure, enabling industrial tracking, and facilitating product asset rentals, or working as an intermediary for services — the goal of the platform economy is to extract the raw material of data to gain money, competitive advantage, coordination, optimization, and flexibility (Srnicek, 2017). Platforms, accordingly, represent a capitalist evolution borne, in large part, from financial crisis.

Zoom and other cloud-based streaming providers are commonly characterized as platforms, but there is, simultaneously, an infrastructural dimension to streaming video conferencing that has been further magnified by the high-bandwidth demands of COVID-19 lockdowns. Parks and Starosielski (2015) define media infrastructures as “situated sociotechnical systems that are designed and configured to support the distribution of audiovisual signal traffic.”[7] Yet, scholars note that the distinction between platforms and infrastructures has increasingly blurred, as large-scale platforms such as Amazon, Facebook, Google, Netflix, etc. create “media environments increasingly essential to our daily lives (infrastructures) [that] are dominated by corporate entities (platforms).”[8] Infrastructural platforms form the heart of ecosystems that often allow other platforms or apps to be built, serving “as online gatekeepers through which data flows are managed, processed, stored, and channeled.”[9] In addition to enabling groups to interact, platforms function to segment the Web — at times behind pay-for-service barriers. In other instances, the “free” nature of platforms is paid for by pervasive data collection (which occurs during most pay-for-service models as well). Accordingly, platforms attempt to funnel open Web traffic into increasingly segmented silos so that these services can use rhizomatic connection to fight for key positions in an ecosystem (Srnicek, 2017; Langley and Leyshon, 2017). The data-driven, monopolistic, and predictive and behavior modifying goals of platforms, then, represents a new phase in the lineage of the power consolidation via the surveillant corporation (Palmās, 2011). Stated differently, the platform model of capitalism is, at once, novel and deeply historical, representing a consolidation of power derived from providing increasingly essential digital infrastructure that mediates relations between groups, most often to the ends of data extraction and monetization.

The dramatic rise of Zoom is underscored by these historical trajectories. An economic landscape in which capitalist accumulation and industry expansion is driven by the pursuit of data extraction has become hallmark of the computational age. Crisis, as ordinary state of affective relation, also contributes to the rise of the platform. Specific to the landscape of late 2019 and beyond, the totalizing crisis of COVID-19 as global pandemic created a need for increased modes of synchronous virtual communication, a need quickly serviced by videoconferencing platforms like Zoom.

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**Critical approaches to the surveillant university**

It’s not a novel claim to situate the school and classroom as site of power, control, and subjectivation. More recent critical accounts of educational technology have, justifiably, turned a gaze toward learning analytics. To this end, scholars have noted the complexities of edtech as intermediary, embedded, algorithmic, infrastructural, market-driven, automated, multi-sectoral, and inter-organizational (Williamson, 2021b). The rise of edtech platforms is driven by the aforementioned logics of platform and surveillance capitalism, as universities succumb to sociopolitical pressure in becoming more competitive, market-focused, and data-driven (Williamson, 2021a, 2019). Most often, reliance on platform infrastructures by higher education is framed via utopian ideas of building a “smarter university”, when in reality this trajectory opens the door to
greater influence of market reform and private corporations on higher ed (Williamson, 2018). Strands of neoliberalism, platform and surveillant capitalism, and crisis are all apparent in the greater dependance and trust of edtech.

There are obvious benefits to a data-driven analysis of student learning and progression; however, there have been calls for some time to assess the ethical challenges of informed consent, privacy, and data uses by learning analytics platforms (Slade and Prinsloo, 2013). Data-driven engagement with students offers the potential to assess new patterns and cater to learning styles, but risks losing granularity in data representations of what are complex individual students (Selwyn and Gašević, 2020). Education is often promoted as a public good and not a commercial enterprise — this narrative is challenged when the university becomes yet another site of data extraction (Williamson, et al., 2020). Further, many of the ethical issues of big data broadly reemerge and are transformed by the use of learning analytics in higher ed, including: a shifting understanding of education; greater surveillance; an obsession with performance and outcomes over process; a blind faith in data; limits of free choice and agency; and, the embrace of techno-idealism (Selwyn, 2019). In particular, there are concerns about the student subject produced through surveillant data collection. A juxtaposition exists between new forms of data-driven knowing versus the limited ways that data is used, predominately to position students via performance and attendance metrics (Selwyn, et al., 2021). Perhaps just as concerningly, research shows that students are generally unaware that their data is collected and processed by learning institutions (Korir, et al., 2022). Taken as a totality, it is clear that there is significant need to apply critical data lens to the growing and insidious uses of edtech.

It must be noted that embedded learning analytics, often in the form of learning management systems, are not exactly the same as greater reliance on Zoom by universities. While it is clear that Zoom tracks data, said data is not normally captured nor accessible to colleges and universities. Nevertheless, Zoom’s prominent place in university life mirrors many of the aforementioned platformed, surveillant, and ethical issues of edtech more broadly. Just as importantly, scholars have highlighted the crisis moment of global pandemic as an important inflection point where corporate interests have seized an opening into the realm of educational technology (Williamson, 2021b). Reflections on the pivot to online learning are relatively recent (Bellugi, et al., 2020), but emphasize the need for critical approaches that highlight the new actors, scale, reach, technical capacities of the continued digital transformation of college life (Castañeda and Williamson, 2021; Prinsloo, et al., 2021). These excellent scholarly accounts provide a basis for the critical examination of the market forces, third party, corporate, and data-driven aspects of contemporary higher ed. Due to its massive reach and importance, it is crucial to add to these accounts an assessment of Zoom’s integration into university life.

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**Zoom and higher education**

Zoom was and is not without videoconferencing competitors. Skype, just years ago a leader in video calls, was acquired by Microsoft in 2011, but suffered over time from what users described as feature creep — the excessive expansion and mutation of functionality that users don’t actually want (Stokel-Walker, 2020). To the credit of Zoom, the platform, by contrast, offered users a simpler and more reliable video call experience. Yet, the element of crisis was critical in Zoom going from a videoconferencing platform to the videoconferencing platform. Amidst the pandemic outbreak in March 2020, “Zoom started removing the 40-minute call limit for free accounts at tens of thousands of schools in the U.S. and other countries.” (Novet, 2020) In a short time, Zoom took the dominant market share of over 40 percent of all video calls in the U.S. as the company’s stock doubled in price (Ilic, 2020). As Zoom has settled into leading position in videoconferencing generally, the platform has quickly become essential and embedded infrastructure of university communication.

It’s important to question the grandiose proclamations about the future of the technological classroom by
big tech companies. Certainly, technology itself is neither “good” nor “evil”, but is instead bound up in larger compositions of human and non-human bodies that produce certain territories and logics (Deleuze and Guattari, 1983). While a dense read, Deleuze and Guattari’s insights offer strategy for thinking about the machinic relations of the world to reject simple narratives of determinism. Technology, by extension, does not “cause” inevitable outcomes; but conversely, technology isn’t value neutral either. Applied to Zoom specifically, it’s entirely possible that videoconferencing platforms can produce positive learning outcomes and facilitate communication during a pandemic, while also working toward goals of surveillance, data collection, monetization of university relations, etc. Explained by Sancho-Gil, et al., (2020), many education-technology initiatives are driven by “techno-scientific-economic conception ... and the belief that scientific and technical knowledge can directly determine the social development of modern societies.” [10] This mindset — rooted in neoliberal ideologies — has allowed increasing influence of multinational corporations on education systems around the world, leading to ed-tech initiatives based more on a reductionist and one-size-fits-all view of technological acquisition, generation, and distribution with little regard to issues of inequality, disadvantage, and disempowerment (Sancho-Gil, et al., 2020).

Consequently, attention must be paid not merely to the accumulation of technology by institutions of higher ed, but instead to questions of how and to what ends technology is being utilized. The rapid imbrication of higher ed and big tech platforms — further magnified by the need for distance-based learning in response to COVID-19 crisis — necessitates the insights of critical scholarship in the emergent direction of the post-pandemic university. With Zoom specifically, the interrelated issues of surveillance and data extraction, privacy and security issues, platform control of content, and platform/infrastructural divides warrant attention.

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**Surveillance and data extraction**

Evidenced by the aforementioned exponential increase in Zoom users, higher education is not alone in the growing reliance on videoconferencing platforms, with one U.S. K-12 school district characterizing the situation as a “move from four walls of the classroom into the cloud.” (Morton, 2020) There is, now more than ever, a certain appeal in escaping the perilous spaces of the world by fleeing into the nebulousness and ephemerality of the cloud; yet, these discursive dichotomies between the “real” and digital world obfuscate the materiality of the Web. The philosophical lineage of binaries between the “virtual” and “real” been taken up in greater detail in other articles (de Souza e Silva and Sutko, 2011; Grandinetti and Ecenbarger, 2018), and without wishing to dive into the proverbial rabbit hole, my concise point is that discursive positionings of the web as somehow untethered from the physical world create opportunity for tech companies. For example, “the cloud” is merely the outsourcing of data storage and processing from a localized hard drive to corporate server farms, in turn obscuring the messy reality of infrastructure, resource use, data collection, and ownership. But as noted by Andrejevic (2007), the cloud is more accurately a “digital enclosure” where users increasingly rely on privatized communication networks in which data is not free, but instead controlled, analyzed, and monetized by private corporations.

Zoom’s privacy policy — like most others in the era of massive terms of service agreements — allows for ambiguous data collection and use practices. Despite no explicit warning to users, Zoom shared analytical data with Facebook, including data about Zoom users with no registered Facebook account (Cox, 2020). Though Zoom has since updated the platform’s privacy policy, the company retains the right to use and share data for marketing, training, and analytical purposes. The common aphorism “there is no such thing as a free lunch” certainly applies to the monetization strategies of platforms offering so-called free services like Zoom. Although it must be acknowledged that Zoom reports earning the majority of the company’s revenue from paid subscriptions, Zoom’s privacy policy allows the platform to share personal data with companies, organizations, and individuals outside of Zoom with consent (loosely defined), as well as with Zoom’s third-party partners. Collected data includes account user data, pair account holder data, operation data, support and feedback data, geolocative information, persistent identifiers on marketing pages, marketing, and attended event data (Zoom, 2021). Further, Zoom retains the right to:
“share personal data with actual or prospective acquirers, their representatives and other relevant participants in, or during negotiations of, any sale, merger, acquisition, restructuring, or change in control involving all or a portion of Zoom’s business or assets, including in connection with bankruptcy or similar proceedings.” (Zoom, 2021)

Put more succinctly, “Zoom shares data with enough advertisers and data crunchers, in enough states, that it would broadly qualify as selling your data.” (Hodge, 2020) Taken together, despite Zoom’s repeated attempts to downplay data collection, the platform collects significant user data points and retains broad ability to use and monetize said data.

All too often, the ephemeral nature of digital and cloud-based platforms obfuscates the material reality of data collection. Matter matters within the enclosed space of the platform; information is not free, but instead is collected and counted as privacy is repurposed in commercial form (Andrejevic, 2007). Explained by Murakami Wood and Monahan (2019), there are “manifold and often insidious ways that digital platforms fundamentally transform social practices and relations, recasting them as surveillant exchanges whose coordination must be technologically mediated and therefore made exploitable as data.” [11] The altered relationship between populations and corporations within surveillance capitalism is one of formal indifference — the user is no longer an employee or customer, but instead reduced to a point of data extraction (Zuboff, 2015). One commonly proffered solution to issues of privacy and data collection is to demand greater transparency from platforms. But this rhetoric of consumer empowerment assumes that users are, in fact, the consumers and not points of data extraction and that consumers and platforms are relative equals in terms of power (Crain, 2016). Echoed by Srnicek (2017), “Calls for privacy miss how the suppression of privacy is at the heart of this business model.” [12] Specific to platforms like Zoom, data collection, storage, and processing enables a structurally asymmetrical power relation between users and platform providers (Andrejevic and Gates, 2014). Consequently, notions of greater transparency from platforms are no sure panacea, as higher ed users are not customers but instead function as site of data extraction.

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**Privacy and security**

Whether Zoom is most accurately characterized as a platform, infrastructure, or digital enclosure, some of the most concerning aspects of higher ed’s use of Zoom involve issues of privacy and security. The possibility of outside access to private conversations is a concern shared as much by higher education as it is by government agencies, the healthcare industry, corporate world, and private individual interactions. Not every interaction we have with faculty, administrators, and students is highly sensitive, but that fact does not negate the fact that privacy and security should be an expectation users have for the platforms they use — especially when there is little to no ability to opt out.

Amidst rapid appropriation of the platform following the outbreak of COVID-19, Zoom has come under criticism for misleading and ambiguous policies. For instance, despite Zoom’s marketing and promotion of end-to-end encryption (E2E) for audio, investigations found that Zoom did not actually provide this feature in the commonly-understood sense (Marczak and Scott-Railton, 2020). True end-to-end encryption allows access to audio and video content only to call participants; instead, Zoom’s encryption allows the platform itself access to decrypting calls (Lee and Grauer, 2020). When pressed, Zoom initially claimed that true end-to-end encryption was not possible, as the function would permit unlawful activity and make it difficult for law enforcement to access calls. In a rapid about-face (and amidst growing backlash) Zoom has begun to rollout true E2E encryption for all calls by users (Statt, 2020). Related to Zoom’s platform vulnerabilities...
is that expert evaluations found easy-to-exploit vulnerabilities in gaining access to recorded Zoom calls (Hodge, 2020). Certainly, security vulnerabilities are not unique to Zoom, nor videoconferencing generally. In a related sense, misleading features by big tech companies about various features is nothing new, with end-to-end encryption joining artificial intelligence and blockchain as often exaggerated aspects of apps, products, and platforms. What is noteworthy here, however, is that the need for platforms can obstruct users from both a willingness and ability to question various promises. The end result is that so-called virtual interactions are often held to a lesser standard of privacy, security, and confidentiality than would normally be expected in higher ed.

Platform control of content

Related to issues of security and data extraction are concerns of control. An asymmetrical power relation often exists between users and platform providers, but it would be simplistic to assume that tech company providers are therefore immune to pressures from governments and outside groups. Platforms like Zoom are embedded in larger compositions of relations that are often fraught with geopolitical tensions, which, in turn, can lead to curious, inconsistent, and problematic decision-making. For example, in July 2020, Zoom suspended the accounts of multiple activists and online commemorations of the Tiananmen Square massacre at the request of the Chinese government (Slotkin, 2020). While these user accounts were located in mainland China, U.S. lawmakers took the opportunity to press Zoom over clarity on policies of censorship (Slotkin, 2020). Zoom is headquartered in the United States, but runs app development in China, and these issues of Zoom call censorship joined early instances of concern over North American Zoom calls mistakenly routed through China, which, when coupled with misleading claims of encryption, opens the possibility of access to sensitive calls from individuals, organizations, government agencies, healthcare workers, among others (Whittaker, 2020; Marczak and Scott-Railton, 2020). Of note — it is absolutely critical to attempt to demarcate between legitimate concerns about Zoom versus politicization, xenophobic panic, and racist scaremongering. Certainly, there are of instances where platform association to China has become target of politicization by U.S. political parties, with the former Trump administration’s highly-publicized TikTok ban serving as exemplar of an “us vs. them” approach to platform geopolitical origin. The irony of the proposed TikTok ban, of course being that while the platform’s data collection policies became target of concern, domestic social media platforms like Facebook pursues nearly identical forms of dataveillance (Fowler, 2020). In the case of Zoom, moreover, issues of censorship raise questions that should not be ignored.

In yet another recent highly publicized and politically charged instance of Zoom censorship, the platform cut an in-progress feed of a virtual roundtable organized by professors of Arab and Muslim ethnicities and diasporas studies and women’s and gender studies at San Francisco State University because the talk included invited speaker Leila Khaled (Flaherty, 2020). Zoom claimed that due to Khaled’s membership with the Popular Front for the Liberation of Palestine, the platform could not host the event at risk of being “implicated in criminal activities of material support for terrorism and that might include imprisonment and a fine.” (Allyn, 2020) Similar to tensions between the U.S. and Chinese governments, it is crucial to acknowledge the complex history of Israel-Palestinian conflicts as part of Zoom’s actions. Issues of campus conflicts over Israel and free speech are just one of many challenges facing higher ed — whether taking place via videoconferencing platform or on physical campuses (Leland, 2021). It is often difficult to completely disentangle geopolitical tensions and histories, issues of free speech, and the debates of “deplatforming” from these events of Zoom censorship. But, in viewing the issue of platform power vis-à-vis Zoom’s growing importance to higher education, it is essential to question how embedded infrastructures can quickly become arbiter of knowledge and a gatekeeper to the types of conversations permitted via a virtual platform — especially during a pandemic crisis in which physically hosting events is unsafe and viable videoconferencing alternatives are limited.

Platforms have always engaged in moderation, and some moderation is certainly warranted and desirable.
This topic defies a one-size-fits-all solution and requires nuance as to what content should be moderated as well as who (or what in the case of machine learning moderation) should do the moderation. All platforms moderate, but they do so while disavowing moderation (Gillespie, 2018). Issues of content moderation are further complicated, when, similar to examples of Zoom complying with censorship requests of the Chinese government, differing global laws and content regulations come into conflict. Termed the global ‘splinternet’, visions of a globally unified Internet are often disrupted by the fact that “users have profoundly different experiences of Internet use based on the territory in which they are accessing platforms and content.” [13] As such, platform moderation is a complex sociotechnical issue, and solving issues of moderation requires transparency, accountability, and greater diversity behind platform creation (Gillespie, 2018). These critical questions of platform censorship take on even greater significance in a landscape of crisis, in which platforms like Zoom are able to both consolidate industry dominance and become increasingly essential infrastructure. Or, when higher education is reliant on third-party platforms to operate, infrastructural moderation becomes a critical gatekeeper in terms of what kinds of knowledge is permitted to circulate in courses and invited talks.

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Digital and infrastructural divides

Finally, the infrastructural dimension of videoconferencing platforms during crisis can quickly exacerbate infrastructural inequity and resource divides. The ultimate development of any technology or institution is its invisibility, and infrastructures strive toward the invisible — to this end, technologies and infrastructures are often unnoticed until they stop working or face disruption (Parks, 2012; Peters, 2015). Yet, for some, infrastructural disruption and unreliability is the norm. Though there exists perception of the United States as highly Web-connected country, 30 percent of lower income Americans do not own a smartphone, 44 percent lack home broadband connections, and 46 percent do not own a traditional computer (Vogels, 2021). Further, studies of U.S. colleges and universities found roughly 20 percent of students reported issues achieving access, sustaining access, and coping with disruptions in access, with a disproportionate effect on students of color and students of lower socioeconomic status (Gonzales, et al., 2020). It should be noted that younger U.S. adults do have extremely high rates of Internet use and phone ownership. Mobile access can close usage gaps, but device divides both matter and persist in terms of the type of activities users are able to engage in (Pearce and Rice, 2013). Additionally, mode of access — whether device, location, or provider — is connected to breadth of access, differing forms of social capital, and variety of online activities that one is or is not able to partake in (Reisdorf, et al., 2020). Put another way, smartphones are excellent for checking e-mail, news, and social media, but activities like writing a paper or joining a Zoom call can quickly demonstrate device and bandwidth limitations respectively.

Some colleges and universities have made efforts to help students rent laptops, whereas some Internet service providers offered limited-time free broadband access for low-income students. Higher ed digital divides will, of course, vary by location, institution, and student population as well. Solving access divides will take a radical shift in priorities, infrastructural investment, social programs, etc. that both include and go beyond the efforts of colleges and universities. Such questions intertwine with the importance of assessing how sociotechnical pandemic responses, in turn, configure bodily vulnerability, marginalization, and structural inequalities (French and Monahan, 2020). It is up to higher ed to question whether the growing reliance on reliance on bandwidth intensive options like Zoom are the best choice for students not only in terms of issues of security, surveillance, data collection, and censorship, but also in terms of material access divides. Stated differently, though videoconferencing allows a sense of normalcy in terms of synchronous course activities, it is crucial to consider how significant proportions of already vulnerable students are placed at further disadvantage via the expectation of device and infrastructural access.
Higher education has been irrevocably altered by the complexities of COVID-19 affected world. In a landscape in which many colleges and universities were already struggling financially, COVID-19 may be harbinger of massive change. For decades, the neoliberal ideology of market rationality has guided decision-making for governments around the world, and higher education has certainly not been immune to logics of market privatization, defunding, and corporate influence (Hall, 2016). When facing a host of logistical, financial, and infrastructural crises, the slick veneer of technological rationality posited by big tech companies can be a seductive lure for institutions on precarious and uncertain ground. If the early issues of Zoom are any indication, there are ample reasons to be concerned about the platformization of university life.

Critical assessment of corporate-university partnerships is not synonymous with a categorical rejection the technologically mediated classroom. There are plenty of reasons to be thankful that videoconferencing platforms like Zoom exist and have enabled life to continue — even if the mediated communication is neither preferable nor perfect. Certainly, I do not wish to advocate against videoconferencing technology generally and I certainly wish to avoid simplistic and deterministic arguments that Zoom and other platforms are causing the aforementioned issues or that the COVID-19 pandemic caused the platformized university. Instead, this moment of crisis allowed for an acceleration of logics and developments decades in the making, manifesting in the integration of third-party videoconferencing platforms as essential infrastructure.

It is now more than ever critical to consider the implications of assimilating third-party platforms into university life, particularly when these platforms become essential infrastructures of data extraction. This issue is made even more salient in an era where platforms compete for monopoly position through an “expansion of extraction, positioning as a gatekeeper, convergence of markets, and enclosure of ecosystems.” [14] Pervasive data collection is often accepted as part of contemporary interaction, and regulating exactly what platform providers can collect and what they can do with this information is a massive task and uphill climb. Alternatives to Zoom exist in Google Meet, Skype, Microsoft Teams, Cisco Webex, BlueJeans, and Jitsi — but many of these choices are merely trading one big tech provider from another. In the case of smaller alternatives, there remains the question of adding to a bloat of technological accounts, platforms, logins, and features for students. Moving forward, it is essential for colleges and universities to examine the massive challenges of security, surveillance, censorship, equity, and access in a landscape of big tech consolidation.

There is likely no easy solution to the multifaceted challenges of platform integration into higher ed, but the issues of Zoom serve as caution for notions of technology as remedy for a post-pandemic higher education system. For administration, educators, and students, a critical perspective into the complexities of university-tech partnerships is more important than ever before. Scholars have already begun the push for increased student literacy via critical data education, in which students begin to understand how their data is collected, the implications of data processing, and strategies to protect their personal data (Pangrazio and Selwyn, 2020). Not all issues can be solved by individual action, however, as the growing necessity of bandwidth capable of consistent streaming threatens to exacerbate existing digital divides and inequitable access to higher education for many groups that are already at higher risk of not finishing a college degree. Higher education, we have long been told, should function as the great equalizer in terms of offering students skills and opportunity. The kind of opportunity we hope to provide for students is quickly threatened by inequitable access and uncritical platformization of university life.

Crisis might often serve as an opportunity for the growing reach of and reliance on big tech, but moments of flux also provide occasion for positive change. Such a charge has been taken up by scholars considering how learning analytics can be reimagined (Selwyn, 2020) as well as how a post-pandemic university can counter risks to equity with ethics of care (Czerniewicz, et al., 2021). What these accounts make clear is that the stakes of our collective choices are high. Moving forward, the insights of surveillance studies should help shape higher education decision-making ranging from administrative decision-making in regard
to platform adoption and corporate partnership to pedagogical choices that ensure students’ privacy rights, security, access, and critical media literacy.

About the author

Justin Grandinetti is an assistant professor in the Department of Communication Studies and affiliate faculty in the School of Data Science at the University of North Carolina Charlotte. E-mail: jgrandin [at] uncc [dot] edu

Notes

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