

Technology in the Pandemic: Rupturing the Aura of Higher Education

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Abstract: Framed by Benjamin's (2008) concepts of aura, technological reproduction, and miniaturization, this paper argues that technology provides students with greater opportunities to take control of their learning in ways that were not possible when education took place largely on-campus, in the higher education classroom. Post pandemic, digital technology has influenced, and will further impact, the way in which we teach and communicate with our students. Educators emerging from pandemic pedagogies need a deeper understanding, and more judicious and effective use of technologies for learning. By understanding and using technology in these ways, educators can help students become more empowered, collaborative, and critically reflective. A lack of readiness for emergency online learning has been replaced with a sense of acceptance that educators must incorporate digital tools into their practice for both educational and communicative purposes. This means that our intellectual and social attachment to the physical classroom as a place for learning and communicating is not as strong as before. Far from being a eulogy for the physical classroom, this paper aims to interrogate the proliferation of technology, and the broad implications for higher education. It argues that the use of technology may help diminish the historical power and aura of higher education and intellectual pursuits, thus undermining the traditional overt and covert control of the institution as an ideological state apparatus. Nevertheless, this shifting educational landscape brings new challenges and questions about the historical aura of higher education, and the concomitant evolution of teacher student relationships and power structures through technology implementation. While maintaining optimism about educational technology, this paper urges educators to consider the broader context of our educational settings, and argues for prioritising critical engagement with technology that aims to utilise its potential for collaboration, empowerment and critically reflective inquiry.

Keywords: technology, higher education, critical theory, reflective inquiry

1. Introduction

Walter Benjamin's interwoven concepts of aura, technological reproduction, and miniaturization (Benjamin, 2008; Johannßen, 2018) provide a helpful lens through which to view the recent pedagogical adoption of, and adaptation to, digital technology both during the pandemic lockdowns and in their wake. This paper argues that the trauma of the pandemic and the ensuing rush to teach via digital technology has led to a yearning for the physical classroom. This is both a sign of unpreparedness and indicative of the aura institutions of higher education have in the eyes of students and teachers. However, it also signals a critical juncture for education, bringing into question the nature of educational institutions, their hierarchies and the roles individuals play within. Central to these theoretical concerns is the shifting landscape of education from the classroom to digital technology-mediated learning. While this shift has been in progress for a number of decades, the recent COVID pandemic brought digital technology use into sharp focus. The pandemic has thrust digital technology upon many educators, leading to the incorporation of online learning ranging from fully asynchronous online courses to blended, hybrid and hyflex learning. This shift requires different pedagogical approaches as different means of communication and interaction are now more common. Developing online communities through the Community of Inquiry (CoI) (Garrison, 2022) and Fully Online Learning Community (FOLC) (van Oostveen et al, 2016) models can facilitate collaborative learning and student engagement in online spaces, and critical analyses of a given learning context. They also provide relevant frameworks to maximize the utilization of digital technologies, which allow students to miniaturize large quantities of data, thus allowing them to exercise more agency over information critical to their learning.

2. Theoretical framework: Benjamin's notions of aura, technological reproduction and miniaturization

Benjamin's (2008) interconnected concepts of aura, technological reproduction, and miniaturization (Johannßen, 2018) can help shed light on how technology impacts education while allowing educators to interrogate how things beyond education have a lasting impact.

To understand the impact of technology on education, it is helpful to outline Benjamin's (2008) concept of aura. For Benjamin, aura is a "gigantic anthropomorphism" (Johannßen, 2018, p.645), meaning the object containing the aura seems to be returning the viewer's gaze, thus generating a relationship between the viewer and work of art (Snir, 2021). This aura invests in the work of art a certain authenticity, or power. However, while Benjamin's (2008, pp.7) focus was on the mechanical reproduction of art, he saw technology's impact on art as being symptomatic of something much larger. This means the idea of aura can be extended to the physical world, whether natural or human-made wonders, or when one stands in locations previously occupied by key historical figures (Snir, 2021). What is key to this notion of aura is that objects, institutions, social roles, and positions of authority appear untouchable, unapproachable and impossible to appropriate when encapsulated by aura. Therefore, it is not difficult to imagine this being extended to educational institutions, authoritative figureheads, or even the pursuit of knowledge.

Benjamin (2008) posited that the reproduction of art through technology had an irreversible effect on the perception of art. He explained that the authenticity of an original work of art would always be lost through reproduction. Although reproduction of art by hand was commonplace, technological reproduction had the new ability to undermine the authority of a work of art through its independence from the original, and by the way technology can reproduce art widely, in different settings (Benjamin, 2008, p.21). Of particular relevance to education and its institutions, Benjamin wrote, "The cathedral leaves its site to be received in the studio of an art lover; the choral work performed in an auditorium or in the open air is enjoyed in a private room" (Benjamin, 2008, p.22). To bring this even closer to online, distance or even hybrid education, Benjamin (2008) emphasized the role of technology in severing objects' connections to tradition and exclusivity.

In order to connect Benjamin's (2008) notion of aura and technological reproduction to digitization and digital technology in education, it is important to consider the concept of miniaturization. Johannßen (2018) makes explicit the link between Benjamin's work and modern digital technology. Identifying cellphones in particular, he highlighted the ability we have to collect, store and assess information on modern devices, which he argued miniaturizes the world. Benjamin's work identifies technological reproducibility as having emancipatory potential, (Johannßen, 2018, p. 639), and he identified the expansion of the press as an illustrative example (Benjamin, 2008, p.33). Benjamin pointed out that, for ages, literature was controlled by a select few. However, with the growth of the press, particularly journals, readers could become writers and contribute to various publications. The technological advancements behind this shift in power allowed readers to interrogate and miniaturize ideas. What is evident here is the essential "twofold nature of miniaturization as an unconscious perceptual response and a decentering technique of reading and writing" (Johannßen, 2018, p.643). That is, the new technology of the printing press led to an irreversible change in perception of the "axiomatic character" of the distinction or relationship between writer and public (Benjamin, 2008, p. 34-35). Leading on from this, as Johannßen (2018) has argued, newer digital technologies offer more approaches to miniaturization, and this is a necessity considering the rapid expanse of populations and increasing urbanization. Ultimately, miniaturization through digital technology can aid learning by condensing down or organizing vast collections of information (e.g. datasets), thus enabling learners to take greater control over what may be mentally or emotionally strenuous amounts of information (Johannßen, 2018).

Considering digital technology's potential to miniaturize the world, educators have the potential to develop curricula, course outlines and lessons that help learners overcome a reliance on educators and institutions as leaders, thus empowering them to be self-reliant, autonomous learners.

3. Context of issues: The trauma of the pandemic and yearning for physical classrooms

The return to on-campus learning should be considered as part of the process of pandemic pedagogy. The effects of various pedagogical approaches during these unprecedented times are still at the forefront of teachers' and students' minds. The haphazard rush to implement online learning has left students feeling dissatisfied and alienated, with many believing that in-class learning is more effective than online learning (Post-Pandemic Pedagogies, 2020). Many problems with online learning have become apparent over the last two years. There are concerns about building online communities, interaction between students and teachers, and a work/life balance (Schwartzman, 2020). Harouni (2021) has raised the issue of communication, particularly in synchronous online settings. He highlighted learning new communicative norms, sensory differences, and the absolute/hybrid space as specific challenges of online learning. He has also described the vanishability of online spaces, arguing that the temporal continuity of classrooms and school buildings is lost in online learning. He contended that

physical classrooms have the benefit of allowing students to mill about, ponder or exchange conversation that has a chance to taper rather than end abruptly. These points raise concerns about the potential of online learning to facilitate interaction and socialization between students and are borne out of the dramatic switch to online learning.

Even before the pandemic disrupted education, the physical setting of the school had been championed as a great leveller and place for positive interactions. The notion that in-class learning allows for more organic interactions and flow between the classroom and outside spaces betrays the freer and more fluid movement physical spaces offer, and this is the most distinct aspect of in-class learning. It is a point where social presence may be felt more strongly, where ideas can be exchanged outside of a specific lesson plan, and where spontaneity can happen. To elaborate, a lesson's before and after stages may provide students with even more of what Masschelein and Simons (2013) label as 'free time'. This offers a unique opportunity for students to be (ontologically) in the school, which can "give everyone, regardless of background, natural talent or aptitude, the time and space to leave their known environment, rise above themselves and renew (and thus change in unpredictable ways) the world" (p.10).

The scramble to adopt and adapt to new digital technologies after the initial lockdown put extreme pressure on educators and students and has understandably led to a yearning for the physical classroom (Post-Pandemic Pedagogies, 2020). This is reflective of the "quasi-religious adoration of the singularity of the object" (Johannßen, 2018, p.646) that comes as a result of its aura. However, as outlined by Johannßen (2018, p.645), Benjamin's initial interest in miniaturization identified it as a natural reaction to potentially traumatic experiences. Yet, in later works, Benjamin emphasized the importance of developing a more intentional miniaturization that aims to undercut the less rational tendency to reduce the stature of overpowering sensations (p.645). Therefore, educators should interrogate their adoption of and adaptation to various forms of digital technology in the wake of the pandemic. It is through this miniaturization that educators and students can address the aura of education, its institutions, and hierarchies.

4. Pedagogical approaches using technology

Definitions of online learning vary from asynchronous, synchronous, hybrid, blended, distance, multi-modal, remote and hybrid. While these terms may describe fundamentally different pedagogical models, they also do not take into account critical factors in online learning success; factors such as student engagement, attrition, pedagogical approach and sense of community. The remote nature of online learning has resulted in isolation and discouragement, (Dabbagh & Kitsantas, 2004; Kizilcec & Halawa, 2015; Lehman & Conceicao, 2014) and often higher levels of attrition for online learners, and greater discouragement for online educators. There is also evidence that students learning online often feel isolated, leading to attrition rates up to 20% higher than face-to-face learning (Angelino & Natvig, 2009).

The more recent rapid shifts to online learning environments created a perfect storm of conditions, where teachers had to evolve, learning new technologies as needed, with little support from institutions and, in many cases, a sense of isolation from colleagues and resources. In some instances, this resulted in both resistance to the change to online learning modalities, as well as anxiety, discomfort and fearfulness of the transition. The learning and living conditions exacerbated by the pandemic crisis created a complex series of situations, revealing gaps in the traditional infrastructure of learning in higher education. Paradoxically, this also created opportunities, within which some individuals and organizations adapted well, while others struggled to meet the learning needs of adult students, often who had multiple responsibilities as parents, caregivers and employees. To successfully merge to an interdependent and integrated use of technology for learning, several essential factors intertwine and exist symbiotically. Cochrane (2012) identifies this unique sharing of the digital learning environment as one of the critical success factors in digital learning. He states that features of a successful virtual learning environment include

Pedagogical integration of technology into the course and assessment, lecturer modelling of the pedagogical use of the tools, creating a supportive learning community, and creating sustained interaction that explicitly scaffolds the development of ontological shifts that is the reconceptualization of what it means to teach and learn within social constructivist paradigms, both for the lecturers and the students (Cochrane, 2012, p. 125).

Further, Flavin (2012) refers to "disruptive technologies" (p. 103). He states that "when digital technologies are brought into the classroom setting, the lecturer may have to relinquish some of their authority, thus impacting

on the 'rules' and 'division of labour' nodes in order to enable enhanced learning" (Flavin, 2012, p. 104). This revisits Benjamin's notions of aura, deconstructing historical notions of learning in higher education institutions, and creating learning environments that become more democratic, with shared roles and responsibilities, and a more balanced sense of empowerment for the learner. In this way, the historical notions of colleges and universities were dismantled, as technology made learning accessible anywhere, anytime, to anyone. Learners became more self-directed, and a chasm developed between what past models of higher education were, to what the pandemic had crafted.

4.1 Online learning communities

Wenger and Synder (2000) state that "online communities facilitate virtual collaboration among community members with the potential of transforming the activities of off-line into an online context" (in Lin & Lee, 2000, p. 480). Lin and Lee (2006) attest that "the online community can be defined as a social relationship aggregation, facilitated by internet-based technology, in which users communicate and build personal relationships" (p. 480). Kearney et al (2012) concur that learning "is a situated social endeavor" (p. 1). LittleJohn, Beetham and McGill (2012) agree that the social elements of learning are being embraced by students, and that "learners are responding to the new technical and social opportunities with little help from the formal education system" (p. 551).

In sum, the development of communities of learning has evolved. The Community of Inquiry (CoI) framework (Garrison, Anderson, & Archer, 2010) in particular, recognizes three presences essential to supporting distance education: Social Presence, Teaching Presence, and Cognitive Presence.

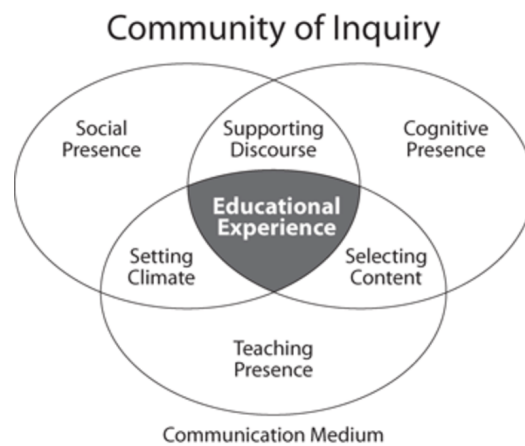


Figure 1: Community of inquiry (Garrison, Anderson, Archer, 2000)

Beyond this, the Fully Online Learning Community (FOLC) model contains social presence, cognitive presence and collaborative learning in a digital space. Significant to this model, there is no overarching teacher presence, but discernibly, the teacher presence is shared in an interdependent way where all members of the learning community are accountable to, and responsible for, the learning of the community members. Decisions are made collaboratively, assessment and evaluation are negotiated, and community members are encouraged to engage in critical discourse that challenges thinking, and involves both conjectures and refutations of ideas. It is this shared power in the community that deconstructs the old aura of higher education, and places learning squarely in the capable hands of adult learners; learners who arrive to the digital environment with lived experiences, skills, and competencies, and a context or experience that frames their learning. In essence, we are miniaturizing the learning experience to the learners' lived contexts, while simultaneously expanding their learning by shared collaborative experiences with others.

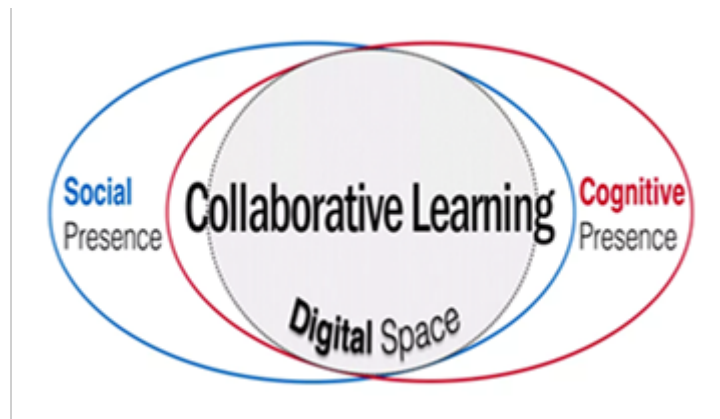


Figure 2: Fully online learning community (FOLC) model (vanOostveen et al, 2016)

4.2 Metacognition in online learning communities

In a broad sense, metacognition involves learners reflecting on their knowledge and becoming critically aware of how they learn (Flavell, 1979; Zimmerman, 2002), but Negretti (2012) and Ramadhanti et al. (2020) emphasize declarative, procedural, and conditional knowledge as distinct aspects of metacognitive awareness. Student awareness of these aspects points toward the development of metacognition (Ramadhanti et al., 2020), and supports its potential to improve self-regulated learning and self-efficacy, thus helping students miniaturize their learning experience.

Metacognitive tasks have demonstrated efficacy, particularly in writing and language courses (Negretti, 2012; Ramadhanti et al., 2020; Redwine et al., 2017). However, metacognition has historically focused on self-regulation and neglected collaboration, discourse and community learning (Garrison, 2022, p.7), each of which is integral to a CoI or FOLC framework. For Garrison (2022), metacognition should be viewed as a product of discourse within a shared learning environment, and co-regulation is as vital as self-regulation. Metacognitive activities have demonstrated efficacy in higher education when used in on-campus learning, and evidence points towards the value of a collaborative, shared approach to metacognition (van Oostveen et al, 2016). Groups who relied on metacognitive collaboration have often outperformed their non-collaborative and non-metacognitive counterparts in writing (Teng, 2021), and there is evidence that a causal relationship exists between collaborative metacognition and emancipatory, transformative learning (Boyer et al., 2006), whose potential also resides in the utilization of digital technology (Johannßen, 2018).

For Garrison (2022), teaching presence can boost metacognition (Garrison, 2022), but to facilitate greater agency, incorporating metacognitive prompts into activity design or the architecture of an LMS platform may be more effective (Scardamalia and Bereiter, 2008). For Knowledge Forum, a CSCL system, Scardamalia and Bereiter (2008) implemented scaffolds for metacognitive processes that help students self-identify reflections. This, combined with a more intuitive design that appears more like a mind map than a traditional discussion forum, supports collaborative knowledge building (Hong & Scardamalia, 2014). Further to this, the CoI framework has demonstrated use in helping educators assess the types, levels and depth of metacognition taking place in online settings (Akyol & Garrison, 2011).

4.3 Collaborative metacognition and reflective journaling

Reflective journaling is a powerful tool for critical self-reflection, particularly when anticipating, experiencing, and recollecting events (Boud, 2001). Reflections from these different perspectives support deeper awareness, reflection-in-action, recall of experiences, focus on feelings and re-evaluation of our experience of a given situation (Boud, 2001). Boud (2001) focuses on reflection-in-action's potential to expose decision-making to scrutiny, expose assumptions, and form new perspectives from which to act. This involves the examination of one's role in a situation, setting and even institution, which requires a detachment from the situation. The journaling Boud argued for could be seen as a Benjaminian reproduction of an intimidating, unapproachable or emotionally overwhelming event. This is something that is clear when Boud (2001) wrote about "attending to feelings" (p.14). Writing about experiences allows students and teachers to keep hold of and examine chance occurrences of teaching and learning that provide new perspectives and meanings that may ultimately lead to

transformation (Tsuji, 2010). Not only does this transformative potential echoes the theories of Benjamin (Lewis, 2019; Tsuji, 2010), but the link between reflective writing and metacognition is also valid (O'Loughlin and Griffith, 2020; Ramadhanti et al, 2020). Reflective writing and collaborative metacognition can also take place through tools such as Knowledge Forum (Hong & Scardamalia, 2014; Scardamalia & Bereiter, 2008), demonstrating the potential for technology to be used to miniaturize learning experiences.

5. Discussion

Historically, education has aimed to reproduce society with an aura but still allows for opportunities to disrupt this reproduction (Snir, 2021). Nevertheless, as Snir (2021) also noted, "aura exists at school" (p.215). This can be extended to institutions of higher education such as colleges and universities. Therefore, it is crucial to examine the impact technological reproduction is having on the aura of higher education, its institutions and roles within. The ability to use digital technology to miniaturize vast quantities of information helps students and teachers alike examine more easily their learning, teaching, and the physical and digital settings in which they learn. This is evident in the development of the Col (Garrison, 2022) and FOLC (van Oostveen et al, 2016) frameworks, both of which aim to increase student collaboration, critical reflection and self-efficacy, partly through collaborative metacognition. The FOLC's focus on moving away from teacher/teaching presence is a key distinction versus the Col and is perhaps more indicative of digital technology's impact on the aura of education, particularly the tacit acceptance of its hierarchies.

Still, as Benjamin (2008) noted, aura is not something that will ever completely disappear. New objects, systems, technologies, methods can all develop auras as it "is the collective of perceivers that creates the aura of the aesthetic object by desiring to experience its uniqueness and singularity" (Johanssen, 2018, p.646). This may also mean that digital technology will not completely usurp the old forms of educational technology such as the school but rather they may coexist (Snir, 2021). This could become evident in the wake of pandemic pedagogies, with technology adoption becoming more common despite a yearning for in-class learning.

The idea that aura cannot completely disappear is a crucial guiding point for educators, particularly those immersed in online pedagogies. Frameworks such as the Col and FOLC may point toward a dismantling of what Freire (2018) labelled the "banking system" of education, and the FOLC model aims to take Freire's logic further by reducing the role of the teacher. The impact of what digital technologies can facilitate in terms of emancipation from outdated, teacher-centred forms of education is promising. An important question to ask at this juncture is, what are the ideological implications of this? The physical classroom or lecture hall promote a focus on the teacher. In these environments, the teacher is often a conduit through which a society's ideology, its structures, and therefore aura can be reproduced. This provides critical theorists and pedagogues with a focal point, and the movement towards student-centred learning is a result of this. This means a critical focus must shift towards the new ideological terrain of self-reliance, self-efficacy, and student-centred pedagogy.

6. Conclusion

The act of "performing pandemic pedagogy" (Schwartzman, 2020) has left an indelible mark on feelings about education and approaches to teaching. Surveyed students overwhelmingly prefer in-class learning (Post-Pandemic Pedagogies, 2020), and levels of student attrition in online courses are a key concern (Lehman & Conceicao, 2014). However, this may originate from a lack of preparedness of teachers, faculties, and institutions to implement relevant and suitable pedagogies for online learning (Harouni, 2021; Post-Pandemic Pedagogies, 2020). McNeill, Gosper and Xu (2012) state, "universities increasingly acknowledge the value of skills such as problem solving, critical thinking and creativity, yet the curriculum needs to be designed to support and scaffold development of these skills." (2012, p. 283). This lagging behind of curriculum design is something that may also undermine the ability of educators to best utilize online spaces. Frameworks such as the Col (Garrison, 2022) and FOLC (van Oostveen, 2016) models have provided practical approaches to online pedagogies. When utilized within these frameworks, digital technologies can facilitate a critical interrogation of learning through collaborative metacognition and reflective writing, which allow learners and teachers to miniaturize their learning and its context within broader structures. This critical interrogation is vital for educators and learners to evaluate and understand their roles within an environment, social structure or system. It is imperative that we analyze the impact of online learning on current best practices to understand how various incorporations of online learning and digital technology can be utilized. It is also important to analyze this unique moment's impact on teachers and learners and how we are all learning to collaborate and coexist in asynchronous, synchronous, hybrid, blended, distance, multi-modal, remote and hybrid settings.

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