

When Faces Disappear – A Call for Combining Autoethnography and Complexity Thinking in Future Research on the Intersection of Physical Spaces, Technology and Healthcare Communication Education during COVID

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Abstract

Autoethnography and complexity thinking should be carefully combined when studying the intersection of physical spaces, technology and healthcare communication education as it took place during COVID. This is the call that stems from a sequential examination of existing literature. Initially, this process identified that existing research tendencies emphasize the need to understand the role physical spaces have in educational processes and highlight the demand to inquire about the opinions of educators regarding these spaces. Subsequently, analysing the manner in which these tendencies are reflected in the literature connected to teaching during COVID, showed that published research demonstrates the evocative potential of educator autoethnographies. Concomitantly, three themes stood out in the examined works: 1. physical spaces form the taken-for-granted skeleton of human existence which can be further explored, 2. matters of communication dominate the literature and set-out many yet to be probed questions and 3. physical spaces, technology and education are undeniably and complexly connected. Altogether, these findings help make the argument that future studies should investigate different instances of the following overarching question: what can be learned about teaching healthcare communication during COVID by using a complexity sensitized autoethnographic investigation focused on the physical spaces-technology-education intersection?

Keywords: educational spaces; physical spaces; complexity thinking; COVID education; spaces-education-technology intersection;

DOI: 10.24818/DLG/2023/40/06

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Introduction

The following pages represent a call for the careful combination of autoethnography and complexity thinking in studying the intersection of physical spaces, technology and healthcare communication education as it took place during COVID. The next sections highlight existing research tendencies, examine how these tendencies are reflected in current literature and then argue that future inquiries should be positioned within the middle of the Venn diagram portrayed in Figure 1. Overall, this positioning will allow for the use of personal accounts to understand and better navigate future communal experiences (Bochner, 2000; C. Ellis et al., 2011; C. S. Ellis, 2006) situated at the intricate intersection of physical spaces, technology and education.

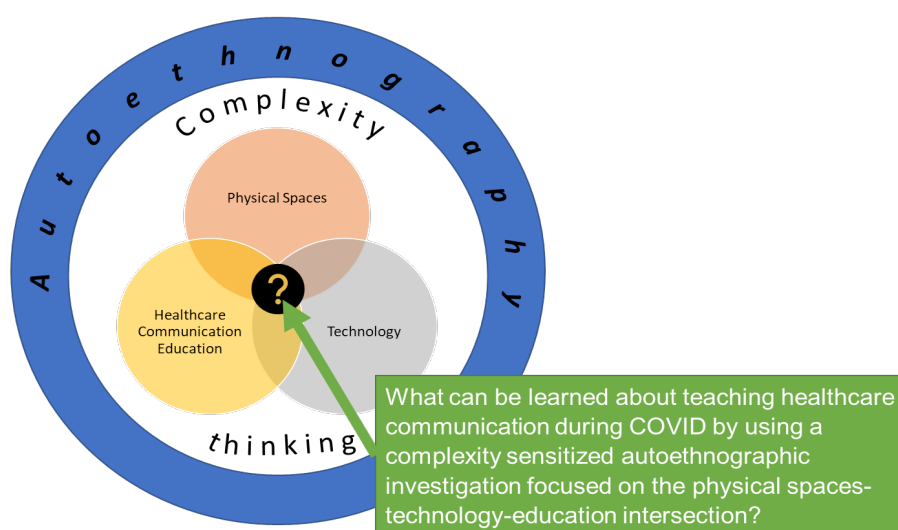


Figure 1

Physical spaces, technology and education are recognized as interconnected entities, yet studies specifically focused on understanding this interconnection are rare. The last years have seen an increased interest in the study of educational spaces. This is especially important as technological developments make the connection between physical spaces, technology and education a tightly knit system of interconnecting human and non-human elements that interact with each other in the process of teaching and learning. Especially worrisome is then the fact that, within

this intersection, the voices of educators, as they connect to the physical spaces they inhabit, are rarely heard. When COVID locked educators – and students – inside their own habitats, technology mediated pedagogical interactions in never imagined ways. Now, that doors have been unlocked and education has moved back into the classrooms, lessons from the pandemic need to be used to move teaching and learning forward. This ethos, of needing to engage in conscious inquiry about the intersection of physical spaces, technology and healthcare communication education during COVID, justifies an engagement with autoethnography and complexity thinking.

It now must be recognized that healthcare communication education is a subspecialty of education. Education in general and healthcare communication education in special are intrinsically connected and, when it comes to the intersection of physical spaces, technology and education, they share many common characteristics. In this context, the next paragraphs discuss general education related research trends. Their applicability to healthcare communication education drives later sections.

1. Current discourses emphasize listening to educator experiences regarding the intersection of physical space, technology and education

Current discourses call for research aimed at explaining the role educational spaces and their interconnection with technology have on pedagogical activities (Bligh, 2014, 2019; Bligh & Crook, 2016, 2017; Bligh & Flood, 2014; Kitto et al., 2013; Nordquist, 2016, 2019, 2020; Nordquist et al., 2016; Nordquist, Kitto, et al., 2013; Nordquist & Fisher, 2018; Nordquist & Laing, 2014, 2015). “[S]pace ... remains a fundamentally important mediator of human learning” yet “learning spaces is an underdeveloped research field” (Bligh, 2019). Even though, throughout the last decade and a half, this challenge has been widely recognized and carefully highlighted by well-respected authors (Bligh, 2019; Nordquist, Sundberg, et al., 2013; Nordquist & Laing, 2014; Temple, 2008) space dedicated research remains minimal at best (Chiriac, 2022).

Current discourses also call for space related research to focus on the opinions of “denizens” (Bligh, 2014). Important for this paper, these are “those academics [...who] *inhabit* the spaces that are the object of inquiry, yet do not possess any particular expertise in spatial design” (Bligh & Flood, 2014). This lack of biasing expertise, combined with the first-hand know-

how about the intersection of physical spaces, technology and education make educators a much-needed research population when trying to understand the intersection of physical spaces, technology and education.

2. Autoethnography and complexity thinking can unearth hidden facets of COVID-affected education

Autoethnography and complexity thinking should sensitize explorations of pandemic affected teaching at the intersection of physical spaces, technology and education. COVID forced a unique shift in educational practices: at a moment's notice faces disappeared behind computer screens. Once lockdowns started, educators – and students alike – moved into their own homes, where teaching, learning and living became concomitantly intertwined. This unique situation led to much improvisation as no instructional manuals of teaching during a pandemic have been written before. The educational community can then research and learn from these unique improvisational experiences. Autoethnography and complexity thinking could provide the much-needed tools to do so.

Autoethnography could decode COVID teaching phenomena by building upon personal educator narratives. COVID generated an international, abnormal, educational experience; to understand it, the research community must learn from educators' personal challenges. "Autoethnography is an approach to research and writing that seeks to describe and systematically analyze personal experience in order to understand cultural experience" (C. Ellis et al., 2011). "When researchers do autoethnography, they retrospectively and selectively write about epiphanies that stem from, or are made possible by, being part of a culture and/or by possessing a particular cultural identity. However, in addition to telling about experiences, autoethnographers often are required by social science publishing conventions to analyze these experiences" (C. Ellis et al., 2011). "Autoethnographers must not only use their methodological tools and research literature to analyze experience, but also must consider ways others may experience similar epiphanies; they must use personal experience to illustrate facets of cultural experience, and, in so doing, make characteristics of a culture familiar for insiders and outsiders" (C. Ellis et al., 2011). Autoethnography can enhance our understanding of the COVID teaching experience, by showing "abundant, concrete detail; concern not only for the commonplace, even trivial routines of everyday life, but also

for the flesh and blood emotions of people coping with life's contingencies; not only facts but also feelings" (Bochner, 2000). It can thus present "structurally complex narratives [...] displaying the self on the page, taking a measure of life's limitations, of the cultural scripts that resist transformation, [...] narratives that express a tale of two selves [...] a demanding standard of ethical self-consciousness [...] a story that moves" (Bochner, 2000).

Complexity thinking can provide anchor points when looking to decipher the intersection of physical spaces, technology and education during COVID. The tripartite intersection of spaces, technology and learning forms a standalone entity, where humans and non-humans interact with each other, forming and reforming ever adapting phenomena (Chiriac, 2022). In this sense, this tripartite intersection, exists, should be envisioned and analysed not as standalone matters of spaces, technology and learning but as "heterogenous assemblages" (Fenwick, 2014) that need to be analysed as such. To detail then, the intersection of physical spaces, technology and education forms a true complex system (Chiriac, 2022) where "new properties and behaviours emerge not only from the elements that constitute a system, but from the myriad connections among them" (Mason, 2008). In this sense then, we ought to allow complexity thinking to help us in researching this tripartite intersection. In doing so we need to look for emerging phenomena that appear within the spaces-technology-education intersectional entity. Within this intersection, we can uncover and understand how new phenomena emerge by looking for proscriptive rules, interactions between system components, bottom-up decision-making processes, variety of functions within the system and the capacity of some elements within the system to compensate for others. In other words, and in alignment with complexity thinking principles and nomenclature, this means that research starts by looking for enabling constraints, neighbour interactions, matters of decentralized control, diversity and redundancy within a system. The idea of emergence is then used to uncover overarching themes that stem from these previously dissected experiences. Sociomaterialism and complexity thinking could thus be used to guide future research (Chiriac, 2022; Davis & Simmt, 2003; Davis & Sumara, 2006, 2008; Fenwick, 2012, 2014; Fenwick et al., 2011; Fenwick & Dahlgren, 2015; Goldstein, 1999; Johnson, 2012; Mason, 2008).

3. Existing autoethnographies offer a glimpse of future research potentiality

Published research shows the evocative potential of educator autoethnographies and highlights the complex interconnections of the COVID influenced intersection of physical spaces, technology and education. Driven by existing discourses and the power of autoethnography and complexity thinking, a search for existing knowledge was started. This literature review initially focused on educator autoethnographies regarding the intersection of physical spaces, technology and healthcare communication education during COVID. This led to minimal results. To broaden its capture, the review was then extended to include general matters of education instead of solely focusing on matters of healthcare communication education.

This scoping literature review used a sequential process to uncover and review articles of interest. The review focused on two databases: EBSCOhost which covers CINAHL and ERIC (EBSCO, 2022; EBSCO Industries, 2022; ERIC - Education Resources Information Center, n.d.) and PubMed (PubMed, 2022). The review initially used Boolean connected keywords focused on COVID, autoethnography, education, space and technology. At the end of this process 160 articles were identified. Abstracts of these initial articles were then individually scrutinized for their connection to healthcare education, their representation of physical spaces – as these are areas of terminological confusion in literature – and communication. At the end of this selection process two articles of interest were identified and formed the basis of this analysis (Dove, 2021; Whelan, 2021).

Table 1

Database used during the scoping review process	EBSCO host covers CINAHL and ERIC (EBSCO, 2022; EBSCO Industries, 2022; ERIC - Education Resources Information Center, n.d.)	PubMed (PubMed, 2022)
Number of articles identified as being of interest after using keywords	30	130
Number of articles identified as being of interest after screening for context based on abstract	0	13

Database used during the scoping review process	EBSCO host covers CINAHL and ERIC (EBSCO, 2022; EBSCO Industries, 2022; ERIC - Education Resources Information Center, n.d.)	PubMed (PubMed, 2022)
Number of articles identified as being of interest after reading entire article	0	2

The small number of articles that were uncovered is not unexpected. This reflects the general lack of available space related research previously identified (Bligh, 2019; Nordquist, Sundberg, et al., 2013; Nordquist & Laing, 2014; Temple, 2008). This, considering existing discourses calling for researching the intersection of physical spaces, technology and education, points to the need for additional studies to take place.

Within the identified articles, three themes connected to the area of interest stand out: 1. physical spaces form the taken-for-granted skeleton of human existence which can be further explored, 2. matters of communication dominate the literature and set-out many yet to be probed questions and 3. physical spaces, technology and education are undeniably and complexly connected. Each of these is analysed below and the influence on future research is presented.

Physical spaces form the taken-for-granted skeleton of human existence which can be further explored. In both autoethnographies that form the basis of this section, it is evident that physical spaces are the much-needed support for life, work and the overall daily existence during lockdowns. Dove in *A sanctuary: Mourning the loss of the classroom during COVID* vividly points to the ever so important home spaces: "I never imagined that I would share such intimate aspects of my life with students [...] We all adjusted to how our home and work/school life collided while quarantined" (Dove, 2021). As if to enhance this account, Whelan in *Tales of precarity: A reflexive essay on experiencing the COVID pandemic as a social work educator on a precarious contract* explains how, as the lockdowns began, "[t]he very next day, I was prepping online materials at home for the following week" while also highlighting that "[t]here is a materiality to teaching in a classroom, a presence that cannot be replaced in an online forum" (Whelan, 2021). Physical spaces then form the skeleton of human existence. The unimaginable before COVID, yet real during lockdown, role

of spaces that is now uncovered supports future space related research and aligns with trends presented in the previous paragraphs.

Matters of communication dominate the literature and set-out many yet to be probed questions. None of the articles that were encountered during the scoping review were focused on healthcare communication education; this was not the direct purpose of the scoping review. Nonetheless, the undertone of the uncovered articles is one in which matters of communication abound and, with them, future questions connected to communication education are unearthed. To clarify, Dove talks about “a brave space for students to share their experiences, ideas, and opinions” and being able “to operate video and audio features” (2021) and Whelan explains “encouraging students to actively engage through things like class discussion and small group work” and “generating discussion in an online forum” (2021). Questions for future studies reside within these statements and research should build upon these ideas.

Physical spaces, technology and education are undeniably and complexly connected. When lamenting that we “had taken the classroom for granted” (Dove, 2021), admitting that “no one could have ever imagined a massive pivot to remote learning with minimal instruction and limited time, while grieving the loss of a sanctuary” (Dove, 2021) or recognizing that “[t]here is a materiality to teaching in a classroom, a presence that cannot be replaced in an online forum” (Whelan, 2021), both Dove and Whelan beautifully use autoethnography to present “a life course reimaged or transformed by crisis” (Bochner, 2000). In the mash-up of forced from-the-home teaching and learning that these two studies present (Dove, 2021; Whelan, 2021), it is hard to separate physical spaces, technology and education. Whelan’s examples eloquently portray this reality:

“I decided to focus on generating discussion in an online forum. I supplied students with readings and lecture notes and opened corresponding discussion boards with prompts, inviting students to interact with their peers while clarifying that those who could not do so, would not be penalised in any way ... Immediately, I saw that many students were struggling with this. For some, it was limited access to broadband, for others it was just not feasible to spend time engaging in reading and discussion in the face of increased caring responsibilities; schools had closed, many of our students are parents” (Whelan, 2021)

“[T]he shift to online teaching is something that will affect education into the future. At the time of writing, the prospect of a ‘blended’ learning environment seems very real and likely to be with us for the foreseeable future” (Whelan, 2021). The idea that physical spaces, technology and education are acutely intertwined is thus evident; as COVID forced us into the limited physical spaces of our habitats, it is hard to myopically imagine that they are not. We thus need to analyse the physical space-technology-education intersection as a standalone entity, a gestalt, where interactions between elements neither are, nor can be understood as cause-effect relationships between one element and the rest. This gestalt then is what points us to the complexity of this situation and imposes future directions of inquiry (Chiriac, 2022; Cilliers, 1998; Davis & Sumara, 2006; Fenwick et al., 2011; Moura & Bispo, 2020).

4. Building upon existing research, we should continue to focus on autoethnography while using complexity thinking to guide future works

Autoethnography provides the means and complexity thinking focuses the “directions along which to look” (Albert J. Mills et al., 2012) in future research.

Both Dove and Whelan (Dove, 2021; Whelan, 2021) beautifully use autoethnography to present “a life course reimaged or transformed by crisis” (Bochner, 2000). We thus listen to denizens (Bligh, 2014; Bligh & Flood, 2014) whose know-how would prove essential for future practices to evolve. Autoethnography demonstrated powerfully personal accounts of what individuals experienced and thus opened the reader’s eyes to challenges likely encountered by a whole segment of population (Bochner, 2000; C. Ellis et al., 2011) – the teachers. This we need to emulate in future research. Further, multiple means of gathering autoethnographic data should be used during the research process. For example, journaling and artefacts could be used to capture and triangulate information with the specific purpose of revealing matters of education in general, and healthcare communication education in particular, during COVID.

Complexity thinking can provide directions for future inquiry. From existing accounts (Dove, 2021; Whelan, 2021), it is visible that physical space, technology and education – healthcare communication education included – form “heterogenous assemblages” (Fenwick, 2014). These we

need to study as such. Complexity can then provide the areas of inquiry and guide these future explorations. COVID forced a new layer of intricacy upon the poorly understood tripartite connection of physical spaces, technology and education. Never envisioned phenomena might have appeared as the pedagogical community was rapidly forced behind computer screens housed inside their own habitats. Now, as we have moved back into the classroom, these phenomena possibly – and likely probably – carry on into our present teaching and learning. As, during lockdowns, much of the pandemic related decisions were re-active, one can use five elements of complexity thinking to research these decisions and proactively influence future choices. In this context, future research could thus focus on proscriptive rules (i.e., enabling constraints), variety (i.e., diversity), the capacity of some elements to compensate for others (i.e., redundancy), the capacity of elements to interact (i.e., neighbour interactions) and the possibility of a bottom-up approach to decision making (i.e., decentralized control) in connection to the physical spaces, technology and healthcare communication education intersection (Chiriack, 2022; Davis & Simmt, 2003; Davis & Sumara, 2006, 2008; Fenwick, 2012, 2014; Fenwick et al., 2011; Fenwick & Dahlgren, 2015; Goldstein, 1999; Johnson, 2012; Mason, 2008). Much like others pointed before, most of these elements of complexity thinking “are probably more open to manipulation by educators and researchers” (Mason, 2008) and need to be considered in future endeavours.

Upcoming research should ask questions that would allow us to learn about elements of pedagogy – e.g., teaching healthcare communication during COVID – by using a complexity sensitized autoethnographic investigation focused on the education-technology-spaces intersection. We would thus achieve the theoretical sensitization needed to investigate, in a somewhat structured fashion the making and remaking of new phenomena that arise from the constantly evolving interaction between physical spaces, technology and education in daily practice.

Future research should then aim at situating itself in the middle of the Venn diagram presented in Figure 1. From the centre outwards, future works should focus on matters of the intersection of physical spaces, technology and healthcare communication education training, would be sensitized by complexity thinking principles and have an autoethnographic character. The middle of the physical spaces-technology-education

intersection should form the focal point of future research. Complexity thinking should sensitize data gathering and analysis and autoethnography should allow us to target the unheard denizens (Bligh, 2014; Bligh & Flood, 2014). By focusing on matters of diversity, redundancy, decentralized control, neighbour interactions and enabling constraints we would be able to dissect lived experiences. We would then use emergence to uncover overarching themes that stem from these previously dissected experiences. Autoethnography, should give us the practical means and the processes by which data would be gathered and processed (C. Ellis, 2004; C. Ellis et al., 2011; C. S. Ellis, 2006; Wall, 2006). Journaling and artefacts could be used to gather and triangulate data about lived experiences. In aligning with complexity thinking, data gathering could focus on and/or be mined for matters of enabling constraints, neighbour interactions, decentralized control, diversity and redundancy (Chiriac, 2022; Davis et al., 2010; Davis & Simmt, 2003; Davis & Sumara, 2006, 2008; Fenwick, 2012, 2014; Fenwick et al., 2011; Fenwick & Dahlgren, 2015; Goldstein, 1999; Johnson, 2012; Mason, 2008). In the end, the idea of emergence could be used to uncover overarching themes that stem from these previously dissected experiences (Chiriac, 2022; Goldstein, 1999; Johnson, 2012).

5. Conclusion

Future studies should thus investigate different instances of the following overarching question: what can be learned about teaching healthcare communication during COVID by using a complexity sensitized autoethnographic investigation focused on the physical spaces-technology-education intersection? Practically, gathering data about researchers' own experiences could triangulate written journals and drawn artefacts specifically curated to uncover how matters of communication were taught during COVID. To clarify, researchers could ask themselves the above question and with pen and paper in hand, answer it both in writing and by drawing images of their own practice (e.g., by drawing how a laptop was positioned in their house to exemplify the space they engaged with in their teaching). Data can then be mined looking for matters of enabling constraints, neighbour interactions, decentralized control, diversity and redundancy (Chiriac, 2022; Davis et al., 2010; Davis & Simmt, 2003; Davis & Sumara, 2006, 2008; Fenwick, 2012, 2014; Fenwick et al., 2011; Fenwick & Dahlgren, 2015; Goldstein, 1999; Johnson, 2012; Mason, 2008). In the end,

the idea of emergence can be used to uncover overarching themes that stem from educators' dissected experiences (Goldstein, 1999; Johnson, 2012). Future research can thus lean on both complexity thinking and autoethnography (C. Ellis, 2004; C. Ellis et al., 2011; C. S. Ellis, 2006; Wall, 2006) to provide the means and the processes needed for forthcoming works.

Educational research, as the broader field, within which healthcare communication education is situated, can benefit from the same approaches to research advocated for above. This will build a robust body of knowledge, where personal accounts can be used to understand and navigate, in a focused manner, future communal experiences (Bochner, 2000; C. Ellis et al., 2011; C. S. Ellis, 2006) situated at the intersection of physical spaces, technology and education.

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