

Open Access, Freedom and Exclusion

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Proponents of open education frequently position it as a radical alternative to existing forms of education. Whether discussed in terms of open access to educational materials “enabling universal education” (Caswell, Henson, Jensen, & Wiley, 2008), the possibility that Google searching will end “the monopoly (or at least hegemony)” lecturers and university libraries once embodied (Barber, Donnelly, & Rizvi, 2013, p. 16), or the proposal that MOOCs will replace the need to study for a programme at a ‘brick and mortar’ campus with a pick and mix selection of “the best online courses from the best professors around the world” (Friedman, 2013), the proposal is that new forms of openness are poised to transform education, sweeping away the constraints of physical sites of learning and solving the problems of educational access for good.

This is hardly a new proposal. As Peter and Deimann (2013) chronicled, sociotechnical developments that affect the ‘openness’ of education can be traced back to the 12th century. However, the effects of such developments are complex, not simply accumulative, and certainly not a deterministic outcome of technological development. Instead, openness is “not only a technological, but also a social, cultural and economic phenomenon, not bound by institutional or national boundaries. [This shows] the danger of emphasising one aspect of openness while backgrounding others and how unrestricted practices can quickly, and repeatedly, become institutionalized” (Peter & Deimann, 2013, pp. 11–12).

Yet as Peter and Deimann (2013) noted, contemporary discussions of openness seem strangely detached from the past, seeing it instead as a novelty, a new moment in education. Lacking historical context, the development of new technologies may indeed seem to offer a brighter educational future. However, work within the field of educational technology has long been recognized as being caught in cycles of hope, hype and disappointment because it fails to engage adequately with theoretical or historical critique (Mayes, 1995). There is every risk that recent work on open education could repeat this pattern.

At its best, the current hope for openness addresses itself to some of the most pressing political challenges facing education today. Laurillard (2008), for example, focused on the worldwide demand for an estimated additional 125 million higher education places by 2020. Her proposals seek ways “to extend education well beyond the confines of the physical” (p. 321), and ideally, to do so in ways that scale beyond staff to student ratios of 1:30, which even open education programmes have struggled to do. In the last few years, the newspapers would have us believe that massive open online courses (MOOCs) have done exactly that (Lewin, 2012), opening up higher education to over 100,000 students on some early course offerings. Advocates go so far as to claim that the battle for openness has been won

and that openness has already become fundamental to higher education (Weller, 2014).

The promise in such proposals is one of universal access—but access to what? What kind of education is envisioned in these accounts? Knox's (2013) discussion of the open educational resources movement noted that universities are described as having functions such as content development, research and credentialing, but teaching methods or teacherly expertise appear to have been dismissed. Weller (2014, pp. 9–12) talked about teachers being relevant when knowledge is scarce but proposed pedagogies of abundance (focused on using abundant online content) and of openness (adding learner networking); “campus classroom based didactic learning pedagogies” (p. 10) are dismissed, wholesale. This account has much to say about connections between learners, and about the generation of more material, but nothing about the value of what is produced or how learners make sense of the abundance they encounter; it addresses provision and access but not the responsibilities that go alongside this. In Ross, Sinclair, Knox, Bayne, and Macleod's (2014) analysis of writing about MOOCs, they argued that peculiarly circumscribed accounts of teachers' roles dominate the discussion. Typically, these are characterised purely in terms of the teacher “having expert knowledge, but lacking the means to widely transmit it” (p. 59). Downes (2011), for example, was quite explicit about this—and about its economic foundations.

Technology gives us access to new markets. Before the internet, and I remember these days, my power of communication extended to the room that I was in, maybe a bit further if I shouted, and I did shout from time to time because I wanted to be heard, and that's it. But today, with the various technologies, I have a global reach. I have a global reach not just in terms of distance, I have a global reach in terms of audience. I can reach out beyond my own community, my own group. This is a capacity I never had. (p. 38)

Such writing produces oversimplified views of education—for example, that it is the technologically mediated equivalent of shouting and that Downes's voice can now be heard to the ends of the earth. Consequently, subsequent analysis has resulted in overexaggerated claims for the disruptive potential of MOOCs. This is, arguably, a classic example of Heideggerian enframing: Any aspect of education beyond the need to access information vanishes, leaving only a standing reserve of information resources (which, potentially, includes teachers) waiting to be served up to needy learners.

There are some variations in the scope of such discussions: Writing about cMOOCs, which draw on Connectivist accounts of learning, do draw in slightly different kinds of reserve. In these accounts, cMOOCs are claimed to be “an open and a-hierarchical invitation to participate in and scaffold activities and discussions: a true ‘teacher as learner as teacher’ model” (McAuley, Stewart, Siemens, & Cormier, 2010, p. 11). In contrast to xMOOCs, fellow participants are foregrounded for their potential in supporting learning; however, the distinctive responsibilities of teachers to plan, coordinate, provide feedback and assess are effaced.

In both these kinds of account, the peculiar enframing of 'education' reduces the account to a matter of information flow. Teaching, as an active, purposeful process, vanishes from the picture, which focuses exclusively and unhelpfully on the learner; it is an example of the 'learnification' of education (Biesta, 2012). Downes (2011, p. 36) was explicit about this, proposing that "the old way is centered around the institution—government, corporation, Microsoft, broadcasting agency, AOL–Time Network—the new way is centered around the individual—the personal website, the blog, the email address." In such accounts, the complexities of educational power are positioned as inherently problematic; they are inherently immoral—rather than historical, perhaps inevitable, maybe even beneficial. They are there to be done away with and certainly not to be explored and understood, as has happened in other areas of research (Ross et al., 2014).

This view of learners as nodes in an information network, sending and receiving information, accords closely with the principles and metaphors that have influenced the design of the Internet and the protocols on which it operates (Friesen, 2010). The development of the Internet has been strongly influenced by funding and projects from the U.S. military, who needed to create distributed networks that would support communication after a nuclear strike. Ironically, given the centrality of the Internet in the open education movement, the view on which this network was developed was one in which humans were treated as a 'processing device,' acting between a machine's display and controls. An important design ideal was to create closed systems, with cybernetic loops improving efficiency through individual feedback—an ideal reminiscent of discussions of personalized learning to this day.

Also ironic, given the stand taken against the power of teachers, is that such discourses are commonly associated with strongly politicized views of the purpose of education. Atkins et al. (2007), for example, discussed "free access to high-quality content to be used by colleges and individuals in the United States and throughout the world to increase human capital" (p. 2). The neoliberal rationale and the geographic bias are plain; as with earlier discussions of flexibility (e.g., Edwards, 1997), learners are compelled to participate or else risk becoming obsolete, unemployable—and thus of no value. Such framing of open access is not universal, of course; for example, Mackie (2008, p. 126) cautioned against exactly this, and Downes (2011) took delight in his anarchic position. However, it serves as a reminder that freedom of access can form part of a wider social project, one in which the freedom *not* to access resources slips away.

A particular problem, according to these accounts, is providing access to infrastructure, and particularly to campuses, libraries and so on (e.g., Lane, 2008; Taylor, 2007). Lane (2008, p. 150), for example, associated the campus with 'closure,' describing using terms such as traditional, boundary, limit, selection, schedule and so on, and stated bluntly that "students must come to the campus to participate in the educational experience"—although he did admit that this portrayal is a "stereotype" (p. 151). Opening access, therefore, is something to be achieved by removing all such restrictions. Technology is the means to achieve this,

resulting in a push toward digitization, a focus on access to courseware and above all a denial of the situatedness of studying.

Knox (2013) argued that such positions focus on dismantling hierarchies of control and bypassing the conditions around admittance to knowledge, but they fail to explore what the value of this is to learners. Knox drew on Berlin's differentiation of freedom into positive liberty (where individuals choose the form and quality of freedom they wish to pursue and how to pursue it) and negative liberty (emphasising the removal of barriers to freedom), characterised as freedom *to* and freedom *from*. From this perspective, it becomes clear that these types of accounts focus on forms of negative liberty, shedding 'unfreedoms'; in so doing, they draw attention only to barriers and consequently position institutions as restrictive, exclusionary and self-interested. Moreover, Knox pointed out that an idealistic pursuit of negative liberty would lead to unrestrained action, not to coherent, organised outcomes directly comparable with, or in some enthusiastic accounts even surpassing, those of formal educational systems.

Instead, Knox proposed that adopting a critical theory of the subject would be a more appropriate way to understand open education. This would allow a more nuanced discussion of operations of power, one that acknowledges its inevitable links to claims about knowledge. It would also allow the development of a more coherent account of subjective agency, one able to bring together the purposeful pursuit of individual freedoms with a recognition of how power, through structures, disciplines, organisations and environments, contributes to the formation of subjectivities. This requires moving on from idealised, humanist accounts of rational individual agency and recognition that construction of the self is not a purely discursive process and is certainly more than a by-product of the types of educational resources an individual chooses to consume.

One important marker of this issue is the absence of discussions of embodiment or situation in work advocating online forms of open education. The participation of learners is curiously rarified. As Dall'Alba and Barnacle argued (2005), the conventional design of programmes involves imparting knowledge and skills in a way that is decontextualized from the practices to which they belong, a problem that they trace back to Cartesian dualism. They proposed countering this phenomenologically, drawing on Merleau-Ponty's ideas of embodied knowing and the extension into and unison with other bodies, entities and things that comprise the world.

This move draws attention to what Land (2005) described as the "incorporeal fallacy" of online learning: the apparent dissipation of human bodies from discussion or consideration. Reacting against this, Land observed that "cyberspace could well be a non-space, but the subjects who inhabit it always remain embodied" (p. 154). Granted, sociotechnical developments can imply "a new, different, and complex way of experiencing the relationship between the physical human body and the 'I' that inhabits it" (Stone, 1991, p. 86). But, as Stone (1991) argued, although we may have learnt to delegate agency to body-representatives that exist in an imaginary space, and while there may have been a trend toward

understanding the body as physical and the subject as textual, the body still remains.

Dreyfus (2008) argued that this raises questions for all forms of online education, proposing that “Internet user’s disembodiment has profound and unexpected effects” and may undermine the credibility of the endeavour (p. 3). He is perhaps premature in celebrating the force of his arguments, particularly given subsequent developments with MOOCs:

Most of Chapter Two predicting the failure of disembodied distance learning and ridiculing the enthusiasts who predicted that, thanks to the Internet, an Ivy League education would be available to everyone on the planet and that Universities as we know them would disappear had to be scrapped. It is now clear that distance learning has failed. The major universities have given up on it and consider their investments of hundreds of thousands of dollars sunk costs. (p. xi)

However, it is hard to shake off such concerns, not least because MOOCs have failed to provide the ‘avalanche’ or revolution higher education was promised; the enthusiasts have not been fully vindicated, either.

An important consideration in Dreyfus’s (2008) arguments is what he meant by ‘disembodied.’ Obviously, he is not proposing the literal absence of the material body; he directly challenges the enthusiasts who aspire to “sloughing off our situated bodies” (p. 50). Instead, as he elaborated, his concern is more with whether “the mediated information concerning distant objects and people transmitted to us over the Internet as telepresence would be as present as anything could get” (p. 54). As an example, he pointed to things like the Mars Sojourner, where the perceptual delays that follow from controlling it emphasise our lack of direct presence.

However, whilst delays in response to control signals may make an operator acutely aware of not being present with the Mars Rover, they probably neither expect nor want a faithful experience of being present on the surface of Mars. Instead, what they have is a sense of presence in the control room of a scientific mission, using a distributed network of scientific tools that include the experimental apparatus of the rover; and this experience of doing scientific work is direct, risky and meaningful in its own right. Even where specialist technology mediates our experience of the object of study, we may still have available to us a direct experience of what it means to study such an object.

The reason this matters is because of student expectations. A student studying online and expecting to experience the same kind of conversation he or she would have in a one-to-one tutorial or a group workshop may well find the mediation of discussions inimical to a sense of presence. However, students expecting to study in isolation, primarily reading texts on screen, may find the experience of chatting to fellow students live on an audio conferencing tool such as Skype, or engaging in complex, closely argued exchanges with their peers in an online discussion forum, far more sociable than they were expecting. If the online exchange is understood as a proxy for the classroom, it will fall short of that benchmark. But if a different

benchmark is chosen—specifically, if such online interactions form an expected part of what it means to study, which, for a growing (but not universal) group of people is exactly what they expect (Jones & Healing, 2010)—then this itself is the direct experience that they were looking for.

To elaborate this point, we can draw on Heidegger's distinction between tools that are ready-to-hand and those that are present-at-hand. Tools that are ready-to-hand form part of a network of things and practices, and we use them without having to focus on them to achieve meaningful ends. By contrast, we are aware of those that are present-at-hand—perhaps because they are unfamiliar or broken, or they are hindering the task at hand. Making sense of them involves focusing on them, theorizing them, to mend, master or improve them in some way.

For the operator of the Mars Sojourner, the difficulties of controlling the rover in the face of communication lag, a challenging environment and so on, all suggest that the rover itself might well be present-at-hand, a struggle to control and so a constant reminder of the way presence is mediated. However, in the control room itself, the keyboard and mouse being used to issue commands to the rover might be ready-to-hand; this part of the network is familiar, not an object of focus, and even though the action involves complex, distributed technologies, the controller might experience their presence in the control room as immediate.

To echo this point within an educational context, if an online student tries to use a bulletin board to recreate the experience of chatting about a concept, or an experiment, or a research paper, with one of his or her peers, that student might well find that the use of a virtual learning environment obscures the intended discussion. The student's sense of presence will feel mediated. However, a student caught up in writing an essay, using alt-tab to swap between Microsoft Word and Google Scholar while searching for journal articles to support his or her argument, might well experience a kind of flow state, one in which the student is so focused on the task that he or she is not directly aware of the fluency with which these tools are used. What the student is focused on is writing.

Writing is, and always has been, a technologically mediated activity—a point that can be traced back to Plato's accounts of Socrates's dialogue with Phaedrus. Law (1992) elaborated the networks that writing as communication involves, for example—such as the computer keyboard, the computer, paper, printing presses, the postal system and so on. However, although writing—a central part of almost every educational experience—is always mediated, it seems inappropriate to condemn all writing as 'disembodied' experience.

What this suggests, then, is the important issue is not the pursuit of an unmediated embodiment but a question of using appropriate technologies to engage with the world. Dall'Alba and Barnacle (2005) developed this point in relation to online learning, drawing on Ihde's work to argue that our embodiment is transformed through the extension of the body by sophisticated modern technologies, including the Internet. Adopting such a relational perspective supports a more complex account of the role of technology.

So while the word processor does indeed transform writing practices, the transformation is not simply an imposition. Rather, the transformation occurs through the mediated relation between “user” and machine, where the parameters and potentials of both are transformed (although not necessarily symmetrically) The impact of technologies, therefore, is neither singular nor predictable as their performance also reconstitutes our own desires and actions. (Dall’Alba & Barnacle, 2005, p. 735)

As a consequence, they argued, the use of the Internet to support distance learning does not necessarily result in disembodiment and disengagement. Instead, the opportunities it provides for extending the body through technologies can make different kinds of presence and engagement possible; they become the means of inquiry, from the natural sciences through to philosophy (Ihde, 2005). Perhaps more provocatively, where such forms of engagement are part of the hermeneutic process itself, confronting students with unfamiliar technologies, with things that leave them feeling disembodied, which are experienced as present-at-hand, may be a productive thing to do, precisely because it requires them to theorize the technology and to make sense of it as part of specific kinds of being-in-the-world.

Adopting this stance on the relationships between tools and knowledge draws attention back to the specific situations in which learners find themselves and how these play into the success or failure of their studies, requiring us to explain the materiality of social practices (Latour, 2005). Such sociomaterial analyses reveal the tensions between freedom *from* and freedom *to*, outlined earlier.

The campus—or more generally, the co-location of learners, teachers, labs, classrooms, lecture theatres, libraries and so on—refuses to lie down and die Those seeking to develop distributed education should understand the support a campus setting gives the educational process and should be prepared for the necessity to find new ways of providing that support in a distributed education context. (Cornford & Pollock, 2005, p. 170)

Cornford and Pollock (2005) talked about the campus as a ‘resourceful constraint,’ one that does indeed create problems of geographical access but which is taken up repeatedly and successfully in the academic work of students and staff, day after day, around the world. The material campus provides what Bowker and Star (2000, pp. 34–35) described as an infrastructure: something that is embedded within other social structures; is transparent (in that it supports tasks without being noticed), at least once people become familiar with it; persists across time and/or space; develops in modular increments because it is big, layered and complex, and so on. Attending to the networks of people and things that students rely upon in their studies reveals the consistent presence of infrastructural elements. The sheer volume and persistence of learning practices undertaken in these conventional sites of study is testament to their ongoing value; however, students also study in a range of other settings, including their homes, parks and on public transport (Gourlay &

Oliver, 2013). The campus tells an important part of the story but not the entirety of it.

To understand how students are already moving beyond the constraints of the campus, it is useful to draw on a mobilities perspective. Instead of seeing spaces such as a container or backcloth, or from the perspective of open education as some kind of trap or barrier, a mobilities analysis explores how spaces are enacted and become sedimented across time (Edwards et al., 2011). Rather than assuming the function of, say, a 'lecture theatre,' it involves exploring how specific educational practices enacted in that space come to frame it in a way that is consistently recognizable. Following the flows of studying, as people and things move from place to place, it becomes possible to identify 'open' aspects of practices where mobility becomes possible (across time, space and forms of mediation), as well as aspects where practice has instead become tethered. Such tethering is not inherently bad—having infrastructures ready-to-hand allows freedom *to*, rather than having to rebuild the material conditions for knowledge work at each new instance of the practice. Indeed, tethering is necessary: Stability across time is what gives things coherence, and in the case of open education, would allow us to talk about learning as opposed to just a series of momentary experiences. Such tethering need not be in the order of whole programmes of study, of course, but this does need to be considered.

The imperative then becomes finding ways to mobilize infrastructure and to understand the specific kinds of tethering that diverse learners find problematic. It also requires us to appreciate the specific kinds of mobilities that diverse learners find problematic, since the work required to reconnect material environments to knowledge practices can be considerable. Students persist in the face of remarkable challenges, as demonstrated, for example, by the way in which students in South Africa persisted with online courses using cell phones, to overcome the infrastructural challenges of unreliable power supplies and Internet connections (Czerniewicz, Williams, & Brown, 2009). It is striking that, "in these difficult conditions, so seriously constraining in real ways, some students are able to overcome structural challenges which would seem to determine their actions" (Czerniewicz et al., 2009, p. 81). Part of the explanation of this rests on the way in which these individuals had tethered particular learning practices to their phone, allowing them to substitute this relatively reliable infrastructure as a point of stability and continuity in their ongoing studies, replacing other more erratic and unreliable infrastructures. However, it is important to note that these replacements were things that the students had to assemble themselves: Even where the material infrastructure (the phone, the cell network) was already in place, these had to be enrolled into the service of learning, requiring the development of new connections (from the phone to the virtual learning environment, the phone screen to PDFs, etc.) and new practices (participating via the phone in online discussions, reading academic papers on very small screens). New forms of openness had been achieved, but students paid a price in terms of the effort and cost of making studying possible.

Conclusions

The open education movement strives to achieve important moral ends, envisaging a more participative, inclusive form of education for the future. However, the way in which this is pursued is often simplistic. Considerable attention is given to the removal of barriers, to achieving freedom *from* constraints on learning. The question of what learners might then be free *to* do is less attended to. Removing barriers is an important part of the whole process of opening education, but it is only part of what is needed.

This simplistic view is enabled by conceptions of learning that treat learners as nodes or components in an information system. By disregarding the complexities of embodied, situated experience, learning becomes a more tractable problem. If these complexities are brought back into the discussion, questions arise as to how learners can construct the complex sociomaterial networks they need to learn. It also highlights that learners' experiences will be diverse, being influenced by the wide range of contexts that they create or find themselves in, and also that these will necessarily vary over time.

One way in which the open education can respond to this is by attending to the ways in which specific groups manage to mobilise their learning. To be coherent, learning needs points of stability and continuity—these might be provided by institutions but can also be associated with devices, people or other spaces. Rather than vilifying universities, which have developed to provide incredibly successful and persistent sites of tethering, it might be possible to learn from these successes. Where equally successful points of tethering could be created that were (for example) associated with devices rather than spaces, this might well open education up in important new ways—although it must be recognized that this comes at a price, with geographical freedom traded off against the economic costs of acquiring and maintaining the device. Achieving a greater degree of openness in one arena requires a greater degree of closure in another.

Arguably, then, no form of education can become completely free without losing all coherence and recognisability. However, it is possible and important to create a broader repertoire of *kinds* of freedom. Achieving this may help create forms of open education appropriate for the diverse needs of the wide array of learners that all of us want to help.

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