Networked learning and identity development in open online spaces

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Abstract

Higher education is responding to multiple challenges in the current context of mobile networking, openness, and participatory culture. This paper explores emerging open education practices in higher education. The affordances of open online spaces are compared with those of physical classrooms and bounded online spaces. It is argued that open online spaces can be considered a Third Space in which students can construct and develop their identities and their networks, integrating formal and informal learning, and developing literacies for lifelong learning.

Keywords

Introduction

The concept of the network is often used when theorising learning; used variously as a noun, verb and adjective (Oxford English Dictionary, 2013):

- *network* (noun): (1) an arrangement of intersecting horizontal and vertical lines; (2) a group or system of interconnected people or things;
- *network* (verb): to connect as or operate with a network;
- *networked* (adjective and verb): linked to operate interactively;

In their exploration of flexible learning, Edwards and Clarke (2002) cited Foucault's description of lived experience in which he used the metaphor of a network, as in the first of the definitions above:

> We are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed. We are at a moment, I believe, when our experience of the world is less that of a long life developing through time than of a network that connects points and interacts with its own skein. (Foucault, 1986, p. 22)

Joichi Ito, director of the MIT Media Lab, speaks often of networks. In a 2011 essay on creativity and learning, Ito used both definitions of the noun network: firstly with reference to the Internet, a network in which the ethos of freedom and innovation has been integral since its inception; and secondly with reference to the people who use and are connected by the Internet. As Ito (2011) noted, no one needs to "ask permission" to create, to program, to innovate, to share on the Internet:

> This network was intended to be decentralized, its assets widely distributed. Today most innovation springs from small groups at its "edges"... The students at MIT's Media Lab experiment create and iterate; they produce demos and prototypes, and share and collaborate with the rest of the world through the Internet and a distributed network of connections and relationships. I don't think education is about centralized instruction anymore; rather, it is the process [of] establishing oneself as a node in a broad network of distributed creativity.

As these examples illustrate, the concept of the network – as model and metaphor – is both potent and flexible in describing changes in society, learning and education; used variously to refer to the computer networks that connect us, connections between people and things, and relational and virtual connections between people.

This paper will explore networked learning in higher education in the context of wider social trends of mobile networking, openness and participatory culture. The affordances of different types of learning spaces within higher education will be analysed. The Third Space concept, first developed by Gutiérrez (2008), provides a useful tool for analysis. Gutiérrez (2008) resists the binary categories of formal and informal learning – observing classrooms as having "multiple, layered and conflicting activity systems" and "multiple social spaces with distinctive participation structures and power relations". It is argued that open online spaces, integrating formal and informal learning, can be considered a Third Space in which students can develop networks, construct identities, and develop literacies for lifelong learning.

Learning spaces in higher education

Higher education is a complex system embedded in human society – a society that has undergone many changes due to recent technological and social innovations. In 2006 David Wiley identified six shifts in society, suggesting that each of these posed challenges for higher education. These were/are the moves from analogue to digital, from isolated to connected, from generic to personal, from tethered to mobile, from consumers to creators, and from closed to open (Wiley, 2006; Wiley & Hilton, 2009). More recently, Stewart (2013) notes that while the traditional higher education model is focused on centralized expertise, competition, and a focus on the individual learner, higher education is currently engaged in the process, albeit unevenly, of moving towards more distributed expertise, collaboration, facilitation of networked learners, and openness.

Educators and students in higher education encounter one another in different learning spaces, both physical and virtual. I will consider and compare the affordances of the three predominant learning spaces in higher education: *physical classrooms* (e.g. lecture halls, classrooms, labs), *bounded online spaces* (e.g. members-only Learning Management Systems or online communities), and *open online spaces* (e.g. the web, open platforms, social media, etc.), and explore networking and networked identities in each. These categories are not mutually exclusive, of course. Most higher education courses make use of the first two spaces, the classroom and the LMS. The balance of activities may lie in one of these spaces more than the other. For example, courses which combine the classroom and LMS may be traditional lecture-format courses or discussion-based seminar courses in which course materials are shared in the LMS and discussions take place in class, online or both; they may be "flipped learning" courses in which students study materials posted in the LMS and then engage in active learning activities in the classroom; or they may be "hybrid learning" courses in which students study online for a number of weeks and meet at set intervals for concentrated face-to-face learning activities. In addition, courses which take place in physical classrooms and LMSs may also participate in activities in the third learning space identified, i.e. open online spaces (e.g. Twitter chats, blogging). The point of identifying and considering different types of learning spaces is not to encourage a choice between them, but to explore the affordances of each and to inform pedagogical choices.

Classrooms

The most longstanding model of higher education is one of educators and students engaging with one another in physical classrooms, typically with one primary focal point. Together the weight of history and the tyranny of the architecture in educational institutions (e.g. fixed-seating lecture halls) foster a tendency towards the lecture format in classrooms, rather than group discussion or collaboration. Many educators, however, make pedagogical choices to mitigate this and work to create collaborative environments and peer learning communities, a trend that is predicted to rise (Anderson, Boyles, & Rainie, 2012).

Such connections are the focus of networked learning. As originally defined, networked learning is "learning in which information and communications technology (ICT) is used to promote connections: between one learner and other learners, between learners and tutors, between a learning community and its learning resources" (Goodyear et al., 2004, p. 2). Learning is recognised as social and relational, not confined to the individual learner; knowledge is constructed through dialogue and collaboration (Hodgson et al., 2012; Ryberg et al., 2012). The definition of "networked" in networked learning theory does not *necessarily* include internet connections or wifi networks. The focus is on person-to-person and person-to-resource connections, which may or may not include online resources and online networks.

Without online connections, however, interactions between educators and students are limited both temporally and spatially. Online learning spaces offer additional opportunities for connecting and for learning.

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Bounded online spaces

In bounded online spaces in higher education, the most prevalent example of which is the Learning Management System (LMS), flexibility is offered in multiple ways. Learning resources move from analogue to digital and, increasingly, tethered to mobile. Access to learning resources, and interactions between educators and students, are not limited by time and space; communication can happen throughout the week, throughout the term, and perhaps beyond.

There is a tendency for communication to be predominantly one-way in LMSs – lecturer to student – with students accessing the LMS to read and review course materials (created, selected and structured by the lecturer), to upload assignments, and to retrieve their grades. However, this is not always the case. In online and hybrid courses, for example, the discussion forum within the LMS often can be the focal point of a course, and the heart of the learning community. Even in classroom-based courses, the LMS can be used more dynamically than as a simple content repository. However, this is the exception rather than the rule (Chung, Pasquini, & Koh, 2013)

Open online spaces are the third type of learning space in HE. Increasing numbers of educators are choosing to engage with students outside of the formal spaces of classroom or members-only LMSs, using open tools and social media. Engagement in open online spaces addresses two of the most limiting factors of classrooms and members-only LMSs: access to wider networks and fixed role identities.

Open online spaces

In any discussion of open online spaces, the concept of networked publics is foundational. Networked publics are defined as public spaces that are restructured by networked technologies: "simultaneously the space constructed through networked technologies and the imagined collective that emerges as a result of the intersection of people, technology, and practice" (boyd, 2010). In boyd's analysis, the way networked publics are structured "introduces distinct affordances that shape how people engage with these environments… Networked publics' affordances do not dictate participants' behavior, but they do configure the environment in a way that shapes participants' engagement". In other words: different behaviours are possible and new participation practices emerge. How then do open online spaces, or networked publics, shape the engagement of educators and students in higher education?

Classrooms and bounded online spaces are, by definition, private spaces. Students occasionally may interact with invited guests or another classroom/community of students. But in classrooms and members-only LMSs students do not have real-time access to wider network connections, be it the open web or their own personal networks. Wiley and Hilton (2009) call this disconnect the *daily divide*: "Individuals with abundant access to information and communication technologies who have habits of effective use of these technologies in information-seeking and problem-solving activities are unable to make effective use of these technologies in higher education settings." Students can learn with/from one another and their lecturer or tutor, within their defined learning community, but they cannot simultaneously learn with/from wider networks, nor can they simultaneously share what they are learning in physical classrooms or bounded online communities with wider networks.

Networked individuals, networked learners

Students and educators come to higher education learning spaces as networked individuals. Rainie and Wellman (2012) have described the growth of networked individualism as an outcome of a broader shift in information and communication ecologies that has occurred over the past several years. The confluence of mobile connectivity and social networking has created new possibilities for social interaction that do not require physical presence. Networked individualism has been defined as "the synthesis between the affirmation of an individual-centred culture, and the need and desire for sharing and co-experiencing" (Castells, 2004, p 223). As well as being the dominant form of sociability, Ryberg and others have concluded that networked individualism is a valuable perspective in understanding networked learning (Ryberg & Larsen, 2008; Ryberg et al., 2012). In education – as in relationships, work, and leisure activities – networked individuals have the potential to connect, learn, create and share, anywhere and anytime. "We are witnessing an intensified personalization and individualization, while simultaneously being increasingly dependent on, connected to and mutually reliant on each other" (Ryberg & Larsen, 2008, p. 104). This tension between individualization and reliance on others can

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be seen as the "very social fabric" of social networking: identities exist and become real through our networks (Ryberg & Larsen, 2008, p. 112).

Educators are networked. Students are networked. They already use their networks of both strong and weak ties to seek information, solve problems, and learn informally (Thompson, 2013). If learning in higher education is designed to take place only in classrooms or bounded online spaces, students are cut off from their wider networks. We create a dichotomy between formal and informal learning. As a networked educator teaching networked students, Alec Couros concluded: "It must be a priority to understand [our students'] connections, apply our pedagogical understandings and leverage these relationships" (Couros, 2006, p. 182). Figure 1, *Networked educators and networked students*, builds on Couros's original concept of the Networked Teacher (2006 and 2006a). Figure 1 illustrates that in classrooms and bounded online spaces, educators and students cannot simultaneously interact with their class peers and their wider networks. In open online spaces, however, educators and students can interact and learn with one another as well as with other contacts and learning resources. Students may network and collaborate with peers in their own courses as well as with students in other courses, disciplines, universities and countries (Cochrane et al., 2013). Students may engage with other educators, besides their lecturers or tutors, as well as with experts, writers and people outside formal education entirely. Students and educators can make visible and share their own Personal Learning Networks (PLNs).
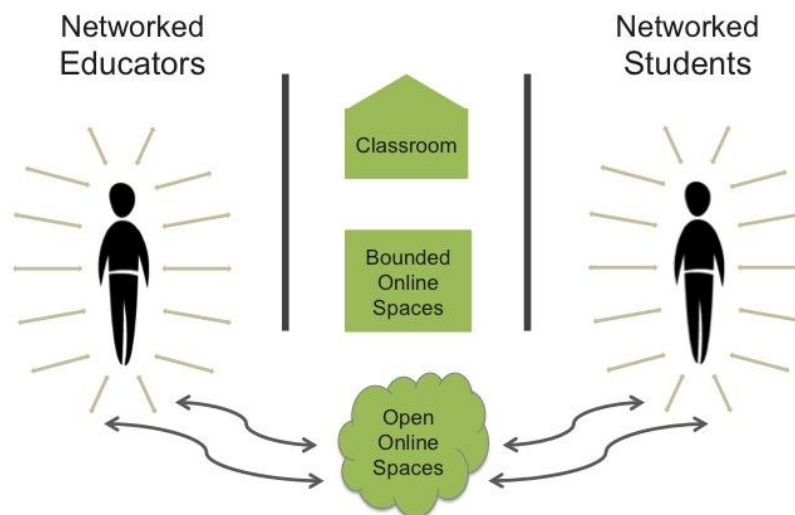
Figure 1: Networked educators and networked students

These connectivist learning practices, as defined by Siemens (2004), Downs (2007), and others, acknowledge that "knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks". The act of opening the classroom can both support and challenge students. Traditionally in higher education, assessment is a private transaction between the student and the lecturer. Networked learning and other collaborative learning approaches advocate opening assessment so that learners can review and provide feedback on one another's work. Open online learning adds another layer to this practice. The audience is not just fellow students or the instructor, but anyone with access to the student's work via the open web. An authentic audience is possible, with students creating work that can be read, viewed, used, shared, critiqued and built upon by others. Thus, open online spaces enable what Stewart (2013, p. 7) calls "immersive networked practice".

Identities: who we share *as*

Learning involves identity transformation. Students in higher education develop new identities: personal, social, academic, professional (Lairio et al., 2013). As Ryberg and others have noted, identity is constructed through

interactions and relations (Ryberg et al., 2012; Ryberg & Larsen, 2008). Students not only construct identities, but also learn "*to be* differentiated subjects" in higher education (Edwards & Clarke, 2002). In research on social networking in higher education, Facer and Selwyn (2010) found that students saw a clear divide between "social interaction" and "educational interaction" on social networking sites, based on existing educational assumptions that "learning is organised around the individual and… oriented around content rather than process". However, by 2010 this was already seen to be changing. In their review of the research, Facer and Selwyn concluded that educators might need to "pay attention to social networking sites as important for the social construction of identity, including personal, social and learner identity".

In classrooms and members-only LMSs, role identities are fixed. Role identities of 'student' and 'lecturer' are reinforced by history and the physical layout of many classrooms: teacher as expert, student as learner. In LMSs, members have clear role identities: student, lecturer, observer, guest, etc. Lecturers and tutors have design, creation and editing privileges within LMSs; students have lesser privileges. These are strong signals about power and about ownership of the learning process.

In open online spaces – such as blogs, wikis and social media – students and educators are not limited by rigid identities and role definitions; the teacher-student relationship is changed (Stewart, 2013; Cochrane et al., 2013). Students, particularly, may experiment with new identities – not just social identities, with which they may have some confidence, but civic identities and learner identities (Facer, 2011). Instructors can be social peers in open online spaces, not just the lecturer at the head of the classroom or with privileges within a LMS. In open online spaces, instructors can be learners as well as teachers, as modelled by Howard Rheingold (2012) in his open social media course in which he addresses students as "esteemed co-learners". Recent research suggests that social media use in higher education is "enabling the creation of Personal Learning Environments (PLEs) that empower students with a sense of personal agency in the learning process" (Dabbagh & Kitsantas, 2012)

As noted by Brown (2010), Ivan Illich raised this possibility over 40 years ago. In 1971, Illich wrote: "what are needed are new networks, readily available to the public and designed to spread equal opportunity for learning and teaching". Illich characterised this concept, "learning webs", as supporting not only access to educational objects to support learning, but access to people – both peers and experts, as well as skill exchanges. Of particular interest in Illich's vision: he foresaw that the "roles of learners and teacher would not be fixed and learning would be far more collaborative, distributed and personalised than either then or now" (Brown, 2010).

In open online spaces, it is easier to begin with, or at least invite, students' interests (Ito, 2013; Ryberg & Larsen, 2008). In open online spaces, students and lecturers can have more equal roles in creating content, sharing resources, participating in conversations and starting conversations. Although the technologies themselves do not create democratic environments, educators who choose to engage with students in open online spaces, who use open tools, and who engage in and model democratic practices, can create spaces for powerful, student-driven learning (Facer, 2011).

In the context of learning in higher education, open online spaces allow access to content, access to people, access to networks, and learner autonomy and agency. As such, open online spaces can be considered what Gutiérrez et al. (1999) call a "Third Space" of learning; not formal learning space, not informal learning space, but a combined space. As Gutiérrez (2008, p. 150) notes:

> People live their lives and learn across multiple settings, and this holds true not only across the span of our lives but also across and within the institutions and communities they inhabit – even classrooms, for example. I take an approach that urges me to consider the significant overlap across these boundaries as people, tools, and practices travel through different and even contradictory contexts and activities.

Learners may come to higher education with online identities in other networks (Ito, 2013). Open practices allow learners the potential to link their formal education with their informal interests, knowledge and expertise, and to build Personal Learning Networks which reflect all of these – to the extent that they wish. In these Third Spaces of learning, learners cannot just develop new identities, but strengthen existing identities, and integrate identities across multiple settings and contexts. As Foucault wrote of this "epoch of simultaneity", we can embrace the juxtapositions (Foucault, 1986, p. 22).

Conclusions

Open online spaces offer multiple opportunities for networked learning. Learners can establish new connections, within and beyond the classroom, based on their interests as well as the curriculum, and connect, share and work with others across the boundaries of institution, education sector, geography, time zone, culture and power level. Learners also can build Personal Learning Networks that will serve them after individual modules, courses and programmes are finished. Educators in open learning spaces can nurture and model digital literacy practices that can help students to become critical readers and active agents in participatory culture (Facer, 2011; Jenkins et al., 2009).

Through engaging in open learning practices, even partly, individual courses can become open learning communities that are not confined to one classroom or one online space. The classroom walls may be "thinned" progressively, so that students and educators operate as part of a defined learning community but also as nodes in broad networks of distributed creativity (Ito, 2011) – sharing work openly, engaging in discussion, inviting and giving feedback. Our role, as educators and researchers, is to develop an understanding of emerging open education practices; the picture is still incomplete (Veletsianos, 2013). As Facer and Selwyn (2010) conclude: "…learners need to practice and experiment with different ways of enacting their identities, and adopt subject positions through different social technologies and media. These opportunities can only be supported by academic staff who are themselves engaged in digital practices and questioning their own relationships with knowledge."

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