

From OER to MOOCs: Critical perspectives on the historical mediation trajectories of open education

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Pre-publication proof

Suggested Citation

Alevizou, G. (2015), 'From OER to MOOCs: Critical perspectives on the historical mediation trajectories of open education', *International Journal of Media and Cultural Politics*, 11: 2, pp. 203–224, doi: 10.1386/macp.11.2.203_1

Abstract

This article considers the intersections between digital and open education to explore how openness, as a value and currency, has conditioned the mediation trajectories of pedagogical knowledge domains and communicative learning spaces. Drawing on critical political economy and deploying a discourse analytic approach, it traces the dimensions of openness as *a techno-cultural frame and socio-economic structure* conditioning policies and genres stemming from the Open Education Resource (OER) movement in the early 2000s and through the influx of Massive Open Online Course (MOOCs). When a practice such as Open Education simultaneously challenges and enhances educational institutions' concentration of symbolic resources, analysing the wider consequences for society may be difficult. Yet several dimensions and paradoxes can be addressed through correlating a number of contingent factors: the development of settings for the increasing mediatization of pedagogical knowledge other than those traditionally anchored to distance and open education; the many interlocking technological, social and political processes that have created new contexts for cultural production; new circuits for facilitating

alternative and cultural pedagogies; and the institutional instrumentalization of openness in neo-liberal restructuring of higher education.

Keywords

open education

MOOCs

commons

mediation

commodification

marketization

digital media

digital culture

Introduction

In 2011 a free, open online course entitled ‘Introduction to Artificial Intelligence’ offered by two Stanford University assistant professors within a third-party online course platform, UDACITY, attracted more than 160,000 students, of whom 23,000 completed the course with an informal accreditation. This was followed by a rash of similar quasi-corporate ventures with global university ‘brands’, such as Coursera, FutureLearn, EDx, offering Massive Open Online Courses (MOOCs) to global audiences. Frenzied media coverage and a vigorous academic debate has accompanied the subsequent development of MOOCs, questioning or elevating notions of digital ‘change’ and ‘transformation’ and ‘disruption’. To an extent, these discourses are part of a long-standing history of debates about the destiny of higher education (see Feenberg 2005; Hamilton and Feenberg 2005; Selwyn 2013) as

technological and new-media forces pull it towards opposing and conflictual interests, polarizing around a critique of neo-liberal technocratic rationality on the one hand, and on the other, an uncritical view of technological development, which positions the ‘virtual’ university as truly progressive.

What these novel developments *may* reveal, however, are wider tendencies towards the mediatization of education (cf. Couldry 2012; Jensen 2013), beyond a particular technological momentum, precisely as universities use the media to promote public-private-enterprising models as a public relations means, and as a mode to influence government education policy. Yet while the ‘open’ aspect of MOOCs signifies a free-at-the-point-of-contact basis, there is a longer history that illustrates how digital media and open education have converged to define the cultural politics of openness.

Some have stressed (e.g. Bulfin et al. 2014) that incessant press coverage of MOOCs have overshadowed numerous other initiatives that emerged in the 2000s, ranging from open access pedagogical materials offered by educational institutions (e.g. Open Education Resources [OER] and learning media infrastructures) to more radical, grassroots experiments that used the Internet to subvert traditional, top-down higher education provision. ‘Open’, a term that has strong socio-technical, ideological and ethical connotations, has acquired, I would argue, a naturalized common sense. It has been used as: an instrument for the ‘informationalization’ of pedagogy in the form of public educational assets; and a communicative space for negotiating alternative business models and structures of community education and cultural pedagogy, while; ‘openness’ has been used as a socio-economic *currency*, pointing to opportunities and tensions where value and symbolic capital can be valorized at the junction of digital

media and education, particularly within competing frames of commons production and of commodification, community and communication.

This article traces these perspectives by looking at the trajectory of open digital education, paying particular attention to origins and institutional settings of the OER movement, and at specific moments and genres of open education as media content and communicative spaces. In exploring this trajectory, I draw on perspectives of value proposed by critical theories of technology and new media (e.g. Feenberg 2005; Fuchs 2009; Dyer-Witherford 2005, 2007; Fuchs and Dyer-Witherford 2013; van Dijck 2013), open education and educational technology (Weinbren 2012; Winn and Neary 2012; see also Winn 2012; Selwyn 2011).

In considering these notions of value that frame the policies, content and spaces surrounding Open Education(al) Resources, we must relate them to the interests of their specific communities/users. One central objective of this article is to offer a more nuanced, historical understanding of these diverse interests, experiences and possibly contradictory terrains, and to unravel recurring themes of which the political, economic and strategic mediation trajectories of Open Education have come to form part. These questions direct this objective: what meanings of open education have been conveyed at different times and through different digital genres or processes of mediation? How are the statements around digital OE situated within dominant structures of production and power? What entitlements and business models are associated with such statements?

Deploying a Foucauldian approach to discourse as a historical and cultural production of systems of knowledge and beliefs (Foucault 1981, 1982), I draw on archival research and analysis of seminal documents and mission statements that define the OER movement, as well as on seven interviews with stakeholders (from four International NGOs, and two funding organizations from the United States and United Kingdom, respectively), and nineteen interviews with strategists and faculty from OER UK-based and international OER projects conducted between 2009 and 2013.

In the next section I consider the historical and conceptual background of ‘openness’ in Open Education. I seek to situate the context in which digital media/cultures have been aligned with notions of open learning and re-appropriated by various actors to add potent frames that condition value and other recurring themes in terms of: content delivery policies and platforms; and teaching and learning practices. I review discourse production through case studies, falling within two principal ‘phases’ conditioning genres conceived as ‘media assets’ / pedagogy commons and ‘public learning environments’, to yield some understanding of the multiple meanings embedded in different political/policy, professional, academic and commercial arenas and larger sociocultural frameworks of legitimation and power.

Developing a fuller sense of how openness is deployed in digital education, through the different genres, subject positions and histories this article contributes to the theoretical foundations of open education within wider processes of mediation and frames of the information society. It situates this within a conception of openness as a value and currency that is characterized by an antagonism between economic freedom (markets/diversification/competition) and social equity and participation. This

recognition of the broader motivations and issues of governance, power and resistance, can point to *both* possibilities for more cooperative and sustainable education *and* instrumental purposes responding to the neo-liberal restructuring and marketization of higher education.

Digital media and open education: Conceptual approaches

Open education: A background

Approaches to open education emerged in the 1960s and sought to combine principles of justice, founded on the right of access to education, with alternative curricula (Freire 1970). Predating this, the French approach to ‘popular universities’ has been a paradigmatic example of the labour movement and ‘the sociocultural animation’ concept (Dintzer and Grelaud 1961; Durkheim 1976; Poujol 2005). With pioneering institutions such as the Open University (OU) in the United Kingdom and the University of Althabasca in Canada, open education has often been closely connected to adult and distance learning, promoting a pedagogical philosophy that stresses models of participation rather than acquisition (Paavola et al. 2004), with courses – rather than degrees – featuring as a unit of accreditation.

Historically, the association of distance education with media organizations and technologies (notably exemplified through the OU–BBC partnership) has addressed *both* pragmatic dimensions (modes of instruction and delivery at a distance, affordable and convenient access) *and* a social, egalitarian ethos associated with cultural pedagogies, community education, peer review and independent learning. During the 1980s and 1990s, approaches to distance learning began to be

accompanied by a techno-economic rationality promoting industrialized production of pedagogical outputs and internationalization in order to provide additional revenue streams for, often, publically funded education systems, as demonstrated by the standardization of practices and the sourcing of additional channels for educational programming and media (see Weinbren 2012; Archer et al. 1999; Davies et al. 2006). Since the 1990s the view of ICTs as crucial levers of innovation in pedagogy, often along with broader discourses defining whole societies as information-, knowledge- or network-based (Castells 2010; Jessop 2000), would further enhance the technology–media complex in lifelong and e-learning, with an increasing emphasis on ‘resources’, ‘networks’ and ‘spaces’. A view of online open education, specifically, sheds some light on these perspectives.

Open education within online education and digital culture

For some time online education was a major focus of debate about the future of higher education, which was in turn polarized in two major ways. For some enthusiasts, the virtualization of the university meant replacing ‘physical processes with new processes that can be accomplished over networks’ (Katz and Oblinger 2000: 2).

Technology heralded the ‘unbundling of higher education services’, with ‘different providers carrying out different functions: curricular development, delivery of instructional modules, provision of student services, student evaluation, and awarding credentials’ (Wallhaus 2000: 22). Others saw the emphasis on technological ‘resources’ as tied to instrumental visions of ethics, global competitiveness and the marketization of higher education (Noble 2002). Some critical theorists of technology have questioned the polarization of debates addressing different aspects of technical inevitability (or determinism), arguing that such polarization neither leaves space for

other developments and alternative socio-technical movements in open and online education nor enables empowerment in political contexts that may have been created through the commons communicative paradigms and connections (Hamilton and Feenberg 2005; Feenberg 2005; Benkler 2005). They have thus considered the development of the OER movement within a ‘third space’.

As it emerged during the 2000s, the term ‘OER’ points to concerted efforts by individuals and organizations across the world towards the use of popular online networks and the web to promote an alternative to existing modes of access to, and structures required for, learning. This involves sharing ideas and openly publishing teaching materials, as well as creating infrastructures and spaces for learning *within* and *outside* formal educational settings and institutions. Adopting notions from the Free (Libre) and Open Source Software and Open Content movements to address ideological aspects and legal standards, several programmes emerged and an international strategic alliance was formed with numerous stakeholders from educational, cultural, technology and media organizations as well as public and philanthropic bodies (OECD 2007; Anon. 2007).¹ OER ‘genres’ have ranged from *institutional projects* of open access courseware (OCW) content and lecture podcasts on popular platforms such as iTunesU and YouTubeEdu to, more recently, educational start-ups promoting Massive Online Courses (MOOCs) under the brand names of ‘Ivy League’ universities. They have also included *alternative, grass-roots or radical pedagogy experiments* using the social web to offer alternative routes to learning through (and about) the digital culture commons as well as radical experiments in critical pedagogy (see Coté et al. 2007; Alevizou 2010; Winn 2012).

With the relationship between education and ‘online technologies’ or ‘digital media’ being approached as a site of opportunity and ambiguity, pushing the boundaries of institutions, professional communities and the students that inhabit these, new issues have emerged and addressed new communication order(s), new forms of content and new forms of practice and relations (Kellner 2004; Goodfellow and Lea 2012: 3; Selwyn 2013). A number of trends exemplify these complex relationships: a pressure to mix and remix multimodal materials and create visual representations and interactive interfaces from pedagogical content (and context); strategies for integrating digital cultures, Web 2.0 tools and social media into the forms and practices of education both at institutional level and at the micro-levels of individual learning or even of theories of learning (e.g., Selwyn 2007: 91; Sefton-Green 2011); tendencies to address students as publics and audiences, co-producers of (their own) learning and yet consumers of accreditation (Giroux 2007, 2008; Levidow 2002).

This increasing fusion of digital media technologies within education creates a domain of intense struggle, tensions and contradictions on many fronts and across many subject positions, ‘from the allocation of resources and maximization of profit, to concerns with epistemology or equality of educational opportunities’ (Selwyn 2013: 2). In this sense, openness, I would argue, is at the centre of a repertoire of symbolic and material factors conditioning social (and public) relations in digital/online education.

A critical political economic perspective then provides a useful framework for situating the material conditions of the open education/media complex as a terrain of tensions and oppositions. As Fuchs argues, ‘value production... can manifest (itself)

increasingly in symbolic, “immaterial”, “informational commodities” and cognitive, communicative and cooperative labour’ (2009: 393).

I look next at different policy phases and genres through which potent frames of openness within different policy, professional, alternative and commercial agendas have been addressed from these perspectives in terms of how they condition value in terms of media assets and mediated environments for public learning.

While this approach informs the conceptual background to how OE trajectories are presented, here I aim to contribute to an empirical broadening by looking at ways in which notions of *value* are embedded in the opposing *value-systems framing openness* as these release new forms and orders of communication – particularly as practices of peer production, knowledge/education commons and networked learning intersect. I focus on notions of value associated with the conditions of mediating and ‘instrumentalizing’ openness in *policy, content outputs* and the *environments* of ‘public learning’.

Open education as mediated ‘assets’: Policies, contents and practices

Duality of purpose in the mediation of open education: Wider policies

Global advocacy efforts culminated in 2007 when the Open Society Institute and the Shuttleworth Foundation, together with leading proponents of OER, issued a declaration at a conference in Cape Town describing it as a movement ‘combin[ing] the established tradition of sharing good ideas with fellow educators and the

collaborative interactive culture of the Internet' (Anon. 2007). Like previous declarations, such as that of UNESCO's Directorate for Education in 2002, the Cape Town Open Education Declaration focused on concerns about presumed restricted access (or lack of access) to formal educational institutions (e.g. in low-income countries) and on providing a (digital) means of emancipation from the hierarchies of control implicit in the systems conditioning access to knowledge.

The value proposition of this declaration lay in its focus on the need for the *relational* and *communicative* capacities of online environments to appropriate more social and egalitarian pedagogical frameworks (beyond the mere delivery of informational goods), as if counter-cultural and commercial agendas concerning Internet sociality could coalesce with little sense of incompatibility or tension. But the larger institutional OER programmes had required precisely the *representational* capabilities of computing for the production and delivery of informational public goods and in order to direct strategic policy in open access publishing.

A report commissioned by the UK government in 2009 locates the pilot phase of OER projects, for example, both as a response to changes in the global media/technology landscape and a way of further liberalizing the higher education sector and as 'rationalized' by a rhetoric of *access, democratization, choice* and *global competition* (cf. Winn and Neary 2012: 137):

... technology is changing universities as they become just one source among many for ideas, knowledge and innovation. But online tools and open access also offer the means for their survival... Through their institutional capital,

universities can use technology to offer more flexible provision and open more equal routes to higher education and learning. (DEMOS 2009: n.p.)

A similar report produced by Universities UK, IPPR and Pearson Education in 2013 perpetuates the same rhetoric (Rizvi et al. 2013). Open access and MOOCs are described in revolutionary terms as promoting social objectives of widening participation by the ‘disadvantaged’, with the ‘unbundling’ of activities advocated as a strategy for efficient marketization, quality assurance and the generation of revenue from publicly provided services.

While the first report presents openness as embedded in a technological momentum (and the communicative embeddedness of Web 2.0), the second presents technology as an antidote to ‘global crisis’ and MOOCs as a ‘disruptive innovation’ set to challenge the monopoly of universities. Both reports echo the rationales that have historically been used to instrumentalize the integration of technology in education in the United Kingdom and globally: *expansionism*, *efficiency*, *economic accountability* (*cost effectiveness*) and *political accountability* (widening participation) (see Finlayson 2012; De Angelis and Harvie 2009). These norms have defined debates, advocacy and intervention, policy and programmes of state and private philanthropic funding in many national and international initiatives aligned with the development of open educational resources (e.g. Hylén 2006; Hylén et al. 2012; OECD 2011)² and have helped, I would argue, to perpetuate the dual (or antagonistic) purpose in OER: economic freedom and political accountability.

As these agendas coalesced, however, they produced a less apparent contradiction: the simultaneous ‘bypassing’ and endorsement of institutional authority as a source of educational provision, which can be correlated with wider discourses of digital disruption (see Pearce 2013; Hall 2015). Two outcomes of this contradiction have underpinned the values framing wider agendas for expansion and visibility: first, the positioning of the Global South as recipient of open education assets; and second the use of openness as a flexible currency for effective marketization of life-long education.

Accountability, expansionism and ‘flexible delivery’

Despite the ideological impulse behind OER as a means of addressing political issues of injustice and resource scarcity in low-income countries (see Altbach et al. 2009; Caswell et al. 2008; Atkins et al. 2007), a more instrumental agenda has led to a language of endorsement motivated also by a novel articulation of technological, legal and strategic expansionism (see also Kelty 2004). This has often positioned developing countries as active recipients of western pedagogical goods. Cross-cultural and institutional collaboration has often been framed as a solution to ‘asymmetries’ and ‘differences’ (Hatakka 2009). Little attention has been paid to the demand for consideration of the tensions between the universality of pedagogical knowledge and the particular conditions of its production and enunciation (Canclini 2009). Issues such as this have generally been dealt with in reductionist ways. The terms ‘translation’, ‘versions’ ‘localization’ and ‘adaptation’ punctuate the treatment of cultural aspects of materials produced predominantly in the Global North, and which seem to condition ‘reuse’ without any specificity (see also Ferreira 2012).

Similarly, stakeholders from some third-sector organizations and institutional projects in South Africa, Australia and New Zealand have argued that, by promoting a fundamentally western conception of intellectual property, the OER movement may have also promoted an approach, which overshadows cultural differences around the practices of creating and sharing learning materials. One stakeholder, responsible for managing a string of projects in Kenya and Uganda, pointed to the fact that an OCW (OpenCourseWare, again open-at-the-point-of-access materials) approach may have overshadowed regional and cultural differences:

it's not about accessing contents, or promoting our best pedagogical idiosyncrasies; it's about changing mindsets and grassroots reforms that go beyond this 'Education4Development' notion; we need to address structural inequities and a top down education system that seek to maintain existing hierarchies of prestige and power. (KE, interview, 2010)

Other interviewees have also raised concerns about such issues, pointing in particular to the perspective, relevance and value of local knowledge and local educational contexts (see also D'Antoni and Savage 2009). Some programmes in the Global South, such as the 'Open Knowledge Network and AgShare', frame disadvantaged users as 'active producers and innovators' (Heeks 2008), collecting, sharing and disseminating local knowledge and focusing on issues of livelihood, such as health, education, agriculture and rights. These emphasize the human element, which can be supported (rather than conditioned) by flexible technical solutions. While there are

some positive examples of technologically and culturally shaped approaches to pursuing principles of social justice and equality, there may also be a number of limitations. Some stakeholders in the Global South have pointed out that many such interventions are seen to be endorsing the ‘official solutions’ of international organizations or development bodies that have the power to develop expensive schemes and can also determine or influence the nature and uses of technology and technologically facilitated knowledge-production. Much of the ‘participation’ and ‘inclusion’ discourse embedded in many such social policy interventions can be seen as driven by official supply-side needs and assumptions (cf. Masschelein and Quaghebeur 2005).

These factors have occasionally been addressed by the education technology strategists behind OER projects in the Global North in order to frame questions concerning expertise and authority or the possibilities for opening up debates about the nature of teaching and learning in particular subjects. As the director of a seminal initiative from the United States has put it:

Opening up education means limiting the scale of the professorial expertise; it means providing a single view into courseware and packaged learning: it’s the exposure to alternative and additional sources of a course that enables more opportunities for intellectual engagement. It can challenge the educational institution as a single source of authority... it’s also about the exposure of the institution’s ethical mission as a whole... (SC, interview, 2009)

This coupling of widening participation with institutional branding and wider marketization strategies (e.g. for enhancing alumni relations, student recruitment or furthering knowledge-exchange among institutions) is well documented across seminal documents of institutional OER projects (cf. Santos 2008). OER repositories and other public learning locations are frequently described as ‘robust local ecosystems of resources supporting innovation and productiveness’ (Brown and Adler 2008: 16). Within this context, the deployment of Online and Distance Learning and of cross-institutional collaboration as strategies for fostering the development of Open Education through resources, media tools and practices is a response to the demands of a higher education *market* (Guntram 2007: 111).

Using OER as ‘tasters’ to stimulate ‘student recruitment’ has been a persistent quote by educational technology strategists within universities in the United States and Europe; their concerns include techno-economic efficiency and the search for alternative models for diversifying the products of teaching labour and for instructional delivery that are more akin to a technocratic rationality than a communitarian ideology for reorganizing education provision and practice. Seminal documents also place a lot of emphasis on the standardization of licenses and formats for the reuse, adaptation and sustainability of resources, since both learners and faculty and the (assumedly diverse) audiences for educational media could benefit from the same resources.

Open education(al) media: Duality of symbolic and material value(s)

So far I have pointed to a series of apparent dichotomies as the discourse of digital open education coalesces between the ethics of educational entitlement and neo-liberal appropriations of pedagogical contexts in the form of open access media objects. John Thompson (2005) was among the first media sociologists to recognize the centrality of pedagogical media (in the form of syllabi, textbooks or courseware), alongside other forms of scholarly knowledge and scientific research, to higher education institutions' symbolic capital – the 'accumulated prestige, recognition and reward'. The 'remediation' of pedagogical knowledge (context, labour and outputs) may not only revolve around the embeddedness of media technologies in education; it also relates to how the communicative embeddedness of global media cultures affect the field of education. In fact the socio-technical praxis of openness maybe more multifaceted and ambivalent, conditioning the ways in which symbolic capital and social relations in education can be processed. The following conceptual aspects are worth exploring further in relation to emerging currencies and the ambivalent nature of openness in the digital (re)mediation of Open Education: *communication*, *community* and *commonism*.

Networked communities: Mediating improvement?

Communicative aspects, such as *networked sociality* and *transparency*, inscribed in public peer production (Benkler 2006) have been associated with a continuous improvement going beyond just increasing *open access* and towards the facilitation of more *participatory* infrastructures for knowledge sharing *around* teaching and learning (Iiyosh and Kumar 2008). Several stakeholders from philanthropic funding organizations have articulated a vision whereby educators and learners, use freely available media, to co-produce an evolving knowledge base founded on shared and

mediated reflective practices. *Community*, for example, has been a central discursive trope in alternative mediation modes for pedagogical knowledge, including information-sharing and ‘learning about learning’ in public spaces (Atkins et al. 2007; Brown and Adler 2008): ‘[a] key tenet of open education is that education can be improved by making educational assets visible and accessible and by harnessing the collective wisdom of a community of practice and reflection’ (Iiyosh and Kumar 2008: 10). Again, varied agendas can be identified, ranging from a notion of openness as a boundary state, a flexible provision, for ‘constantly improving institutional practices’ to more communitarian philosophies that have sought to connect sociocultural theories of learning with ideological ethics in a more cooperative model of ownership in open digital education.

On one hand these are conceptions of openness as an outcome of fluid networks implying the increased expansion of education into other domains of society and social life, either by promoting a ‘an always on’ state of potential engagement and/or by seeking to frame education processes and practices in something that could have calculable, quantifiable and exchangeable value. As an executive from a Learning Technology Research and Think Tank, based in the United States put it:

we are learning multiple ways for OER to be created; so there’s the institutional model; publishing open access materials, which is fairly costly; but there are also other models that I think we are just beginning to experiment with; how do you capture the ‘leisure power’, the wisdom of crowds? How do you capture the passion of people who are interested in certain content domains or subjects,

which is essentially what Wikipedia did, and then shift that to textbooks and courses? There's a pedagogical strength there (CCKF, interview, 2010)

The assumption here is that embedding the discursive forms of expression surrounding engagement with pedagogical resources also produces a *communicative resource* in the Open Education package, a kind of 'metadata', which can be used to uncover the context of learning around co-creation or public reflection. This, in turn, could be *interpreted creatively in order to improve* the pedagogical mediation of subjects for other contexts (a value that could be extracted from teacherly expertise and learning environments).

Several projects were initiated around the idea of developing dialogical, reflective platforms and social environments beyond just delivering content repositories: 'open education practices, expressed through publication and public reflection can act as a powerful means for the reorganization of learning and professional development' (SD, interview, 2011).

Although research insights about the degree to which such platforms have served to facilitate public 'reflection' or 'sharing processes', remain elusive, this vision of openness as flexibly constant training (whether for teachers or students), which can become corrosive and coercive, especially when situated practices of flexible temporal or spatial participation, discernment and recommendation become part of institutionalized forms of courseware delivery.

So far, I have offered insights about the integration of open education with wider processes surrounding the mediation of digital education policy, pointing to some of the material and symbolic aspects of value attached to the concept of ‘open’. While the Open Education movement has proposed a more open use of technologies in order to transform some of the social relations of education, its institutionalized form, in terms of ‘resources’, has reinforced some of the attributes of digital technology in order to redefine ‘mass production’ and efficient promotion, a process involving the reification of such pedagogical resources as *media assets*, *technical codes* or ‘public access’ commodities, which can be freely circulated and regenerated through liberal property laws (Creative Commons); these guarantee a level of autonomy to digital objects over and above the rights (and labour) of teachers and learners.

Several critical education scholars have questioned the extent to which the OE movement has opposed, or can oppose, the ‘corporate personification’ of institutions through the objectification of their staff and students. Some situate the ways in which symbolic capital and *value* are appropriated by existing frames of social wealth within post-Fordist capitalist endeavours:

... the public profile provided by open online courses and open educational resources provides a further level of academic distinction to higher education institutions, and it is at once both a contribution to the ‘public good’ and a method of extracting further value of academic labour process. (Winn 2012: 409, 2015; Hall 2015)

This instrumentalization of openness reinforces the role of digital technology and media in educational provision, while limiting the possibilities of technology and the cultural mediation of pedagogy as a ‘third space’ or a variable space for cultural engagement and a critique of education systems – a way into truly participative community learning (Giroux 2008).

Alternative commons?

Concepts like ‘commons of the mind’ or ‘informational commons’ – potent metaphors in the Free, Libre segment of the Open Source software and the digital counter-culture movements – have been used to promote *non-proprietary* Commons production that focus on freedom of people/systems, rather than ‘objects’. Inherent in these approaches are stronger ‘communitarian’ and cooperative models (Dyer-Witford 2007; Verdegem and Fuchs 2013), underpinning the endorsement of digital technology as an antidote (and framework for resistance) to centralized planning. Whether framing networked technology as a means of undermining neo-liberal technocracy or for proposing ideas and forms of self-organization that chime with cultural pedagogy, public scholarship (Wood 2003; Peters 2003; Mitchell 2008) and ‘democratic’ learning, these perspectives aimed at proposing alternative conceptions of openness, based on the dialectic of human-centred technology, economic equity, political freedom and cultural wisdom.

A series of radical experiments emerged during the mid-to-late 2000s within cultural pedagogy, some within and others outside the ‘official’ realm of the open education movement. These sought to promote convivial or alternative curricula, forms of radical pedagogy and resistance and research projects that have sought to enrich the critical

political economy with feminist knowledge, transformative critical education and, more recently the Free University Movement in the United Kingdom (Social Science Centre 2013; see also Dyer-Witheford 2005: 90–91; Coté et al. 2007; Leinonen et al. 2009; Hall and Winn 2011; Bauwens and Kostakis 2014). Like some of the projects mentioned in the next section, these experiments have made an attempt to disrupt (or resist) problematic elements of institutionalized private higher education, such as assessment, fees and mass instruction.

Such approaches may relate to the wider ethical economy and the economics of contribution, whereby *value* is located in the social relations of creative co-production of media, communicative labour and participatory learning. This certainly fosters an understanding of the Web as a space for cultural citizenship, public scholarship, cross-cultural recognition, creativity and alternative pedagogy. Yet, even as the Internet has a potential for constructing alternatives aimed at progressive change, developing the circumstances for these alternatives to become more visible, sustainable or mainstream is difficult. I discuss these aspects in the next section.

Mediated public learning environments: Free Culture experiments and MOOCs

I now turn to another phase in the development of open education, and the values embedded in the fusion of digital technology and culture with the development of alternative and mainstream environments for ‘public learning’.

As I noted earlier, some defining aspects of grass-roots or quasi-institutional experiments in open education emerged from the ‘digital culture’, while some initiatives have come to challenge the institutional logics of formal education and the

ways in which learning is delivered and accredited. Two distinct genres have emerged between 2008 and 2011.

Connectivist MOOCs (cMOOCs)

A popular perspective combines notions of open education and distance learning with network theories to propose a new approach to learning: connectivism (Siemens 2004, 2006). Connectivism's proposition is that the affordances of social media can enable the educational process to transcend social constructivist approaches by promoting interactive exchanges among collaborative learners. The emphasis is on connections made possible by digital networks and the cycle of information flowing from across these networks. A course designed with this theory in mind, encourages learners to participate through the mediated personal learning environments formed by blogs, wikis and other loosely coupled services, including social media profiles, groups and content aggregated through the Internet. Inscribed assumptions here are that the outputs of, and environment for, such 'public learning' may promote a collective sense of responsibility and pride and can contribute to a more self-reflective culture and provide an impetus for critical thinking and creativity.

A range of online 'open study communities' utilizing the notions of connectivism were formed in the late 2000s, some around the idea of 'teaching open education', including the first self-proclaimed MOOC.³ Some initiatives have used co-production principles, through the collaborative authoring of platforms to design and deliver pedagogical content as well as the space for conducting teaching and learning, while others have taken a more centralized approach, where small groups of field experts or self-proclaimed 'openEd geeks' aggregated to design short courses or form study groups

around university or college subjects.

An example of these is the *peer-2-peer university* (P2PU), which refers to itself as a ‘grassroots open education project, a not-for-profit social enterprise that organizes learning outside institutional walls...’.⁴ P2PU was launched in late 2009 as a way of ‘translating’ the ‘mentorship’ concepts developed by open source/content communities into a wider approach to higher education. It had some affiliation with the University of California Irvine (and has received funding from philanthropic or technology organizations such as the Hewlett and Shuttleworth Foundations and Mozilla) and makes use of OER from multiple sources to support ‘boutique courses’ and ‘classes’ taught by volunteer teachers. Courses were initially centred around digital storytelling and citizen journalism, as well as technical and webcraft topics, but the model was extended to education, languages, and arts and sciences, both independently and through more semi-formal partnerships with mainstream universities, including MIT and NYU.

Several courses from the initiatives mentioned above, as well as others, have attempted to integrate the processes of digital media production into education and, to an extent, to ‘curricularize’ activities of digital culture⁵ through the formation of learning hubs, self-study communities and peer evaluation. Although an exploration of the empirical diversity of such environments is beyond the scope of this article, two issues are important here with reference to notions of ‘participation’ and ‘value’ proposed by some of the peer-mentoring, study communities and connectivist learning networks. In this model, knowledge is built upon cultural mediation and through a constructivist pedagogy based on learning-by-doing and peer evaluation.

Deploying such a metaphor, a founding member of P2PU, reflected upon the end of the pilot phase in 2009:

We didn't want to go... [like other experiments] 'happy go lucky, everyone can try their own thing'... we start up with something very centralized and with having a very strong vision and then we slowly open that up to the community... the learner has the agency to co-create learning spaces, outputs and outcomes. We wanted to create a sense of value that matters to those who participate... we wanted to 'catalyze culture by offering spaces for cultural and pedagogical reinvention'. (SH/SN, interviews, 2010)

Unlike the notions of openness inscribed in the legal standards for sharing content, as in the OER/OCW institutional models, the learning spaces proposed in these cMOOCs seem to promote a new logic of value embedded in network forms of organization that blur the boundaries between educational provision and digital culture. Some open study communities or cMOOCs have developed a social enterprise model, seeking to act as hubs where participants can create value by amplifying their role within a network of Open-Content Ecosystems coming together with a pedagogical intent. This notion of value emerges from new connections between people, interests and ideas that the hub facilitates and curates. This logic of open/immaterial value is defined by the variety of resource constellations (open resources, open media content, open online tools) and increases through practices of sharing and gift-giving (time, knowledge, peer mentoring); it also depends upon the density of interaction among networks of learning and productivity (Arvidsson and Peitersen 2013). Social capital and networks, prestige, credit and reputation

management are significant factors in this valuing process. Some initiatives have maintained a mix of charity and social-enterprise structures, looking to ‘legitimize’ the learning they support through ‘alternative’ modes of accreditation. Both P2PU and the Khan Academy (a non-profit video lecture start-up with social mentoring and commentary)⁶ have used elements of gamification as incentives for progression, specifically the use of ‘badges’ to reward completion or other specific achievements.

The limits of such approaches may in fact lie in their very focus on exchange relations. There has often been an assumed normativity of heterarchy and inclusivity associated with these forms of organization, which does not always, address structural inequalities in formal education systems, the idea of openness a flexible, liquid pedagogies (see previous section, also Knox 2013) or indeed forces of cooptation. The degree to which the labour of the autonomous learner becomes a mode for user-led service innovation and value accumulation in a technologically driven global economy requires further scrutiny. While some of these experiments attempted to break from institutionalized education norms and boundaries, connectivism did not escape neo-liberal rehabilitation. In fact, a New Wave of techno-enthusiasm has emerged looking at how ‘edu-punks’ could turn into edu-entrepreneurs (Kamenetz 2010) – echoing the earlier rhetoric of digital disruption and the unbundling of educational functions.

Instructionist MOOCs (xMOOCs)

Between 2011 and 2013, a New Wave of initiatives, platforms and formats promoting partnerships between educational institutions and high technology start-ups emerged. Examples such as EDx – a collaboration between MIT and Harvard⁷ blended the

existing personal learning at-the-point-of access (OER) with a community-supported experience leading to an (optional, low cost) MIT certificate of completion. Similar are Coursera⁸ and Udacity⁹, which sprung from initial pilots at Stanford. In the United Kingdom, FutureLearn emerged as a private company owned by the OU and offering free short courses from ‘leading universities and cultural institutions’ from around the world.¹⁰ This model has largely ignored the more radical aspects of the early MOOCs, with course delivery closer to more traditional models of e-learning and assessment.

There are two important points to be made about the ways in which openness has been used as a novel currency in the media-digital education blend. The first concerns mainstream press coverage. The language of revolution and the idea of the MOOC as ‘a game-changing innovation for Higher Education’ (Lewin, *NYT*, 2012) has positioned these start-ups almost as an answer to some of the questions posed by those linking edu-hacking with edu-entrepreneurism. Although such accounts are widely criticized (e.g. Bulfin et al. 2014), they have given rise to a New Wave of neo-liberal ‘educational thinking’ and applications by higher education incumbents. As with the mainstream press coverage, the frames of seminal MOOC documents address certain themes surrounding: the augmentation of current modes of instructional delivery; and self-directed learning juxtaposed with institutional endorsement and accreditation as well as quality assurance. In a sense this brings to the fore Couldry’s argument that the media’s relationship with education can be understood as a cross-field effect and in particular one that could be illuminated by the concept of media meta-capital (2012: 149–50). Particularly important here is the interface between media and education because governments use *media coverage* to develop, promote and monitor education policy. But the issue goes beyond this. This multi-directional

media transformation of the public face (or *façade*) of the education complex – as a system, an institution and a space – is certainly indicative of transnational tendencies (and pressures) towards branding within the higher education sector; these are manifested, I would argue, both through curricular mediatization and through cross-media cultural organizations and technology partnerships.

The second point concerns the potential of technological mediation for supporting better pedagogy and offering users (both teachers and students) a range of institutional and informal networks, content and tools to extend their autonomy, reflexivity and identity. For some strategists these platforms use social media and networks to promote an improvement in learning and teaching processes: ‘we have created a global system for academic volunteers, a space where students, subject experts, apprentices and self-directed learners can take control of a process of self-validation’ (FL, interview, 2013). Certainly frames like this seek to privilege a wider conceptual shift ‘surrounding the learnification of education’ (Knox 2013) through learning analytics stemming from Big Data tracing the interactions of the thousands who start taking (rather than completing) these courses. Strategies to codify social relationships and lived experiences by extracting ‘value from social analytics and sentiment analysis’ (Gartner 2010), are often combined with automated systems of assessment (Balfour 2013).

Attaching pedagogical proficiency to the prestige and measures of institutional accreditation, such initiatives have downplayed teaching methods and teachers’ expertise, reducing the teacher’s responsibilities to environmental facilitation (cf. Knox 2013: 825–26) and measured public outreach. And while some research has

emerged reporting that participation in OER or MOOCx initiatives improves educators' pedagogical approaches (Alevizou 2012), professional practices – 'teaching teachers' as Pope (2014) notes – or dips into ideas akin to public scholarship, insights on the systemic and ethical considerations that MOOCs may have in reexamining more traditional campus-based learning, or indeed the MOOC epistemology, pedagogy and cultural hegemony, is still slowly emerging (Marshall 2014; Rhoads et al. 2013; Ebben and Murphy 2014). In fact, reviewing insights on educators' views about the role of MOOCs Baggaley (2014) raises the concerns that many educators and education researchers share, drawing a powerful analogy between the supersizing of food courses (McDonald's) and educational courses (MOOCs). Likewise, there is an inscribed assumption that this *autonomous learning* (and *autonomous learners*) have the freedom to manage their own educational development through mediated activities without facing any difficulties, with some educators beginning to question whether 'massiveness' helping or hindering student learning (Knox 2014).

More so than in the previous phase, where engagement with OER was used was framed as 'flexible' education provision in terms of contents, these novel initiatives seek to put an exchange value to knowledge-economy resources through the provision of learning spaces and educational assets used by both students and junior faculty to respond to demands of twenty-first-century capitalism: information work, distributed work, self-managed teams and learning. Despite the 'open' nomenclature, materials are not openly licensed, and some instructional xMOOC-style providers have been experimenting with charging for certification (EdX, Udacity). Again these genres suggest that major stakeholders have a tendency to revert to the authority of

organizations, systems and structures in the production of reliable academic ‘content’ and in their novel tendencies to commodify the ‘experience’ of learning in public mediated spaces.

Conclusion

Since the early 2000s the term OER, as used to designate media technologies and content, has gained increased attention for the potential it signifies for obviating demographic, economic and cultural, and educational boundaries through free access and the redistribution of power in education systems; this power may be located beyond the potential of technology and processes of cultural mediation to condition exchange relations and to challenge the wider social relations within education. Open source educational technologies and media may lend themselves to socially designed and situated curricula, public-learning spaces of shared production and cooperative governance; these could potentially reassert the idea of (public) universities as sites for critical action in society (cf. Hall and Winn 2011), and of public scholarship not merely as means for making research accessible through media contacts, public outreach, and unproblematized iterations of ‘digital scholarship’ (Weller 2011), but also, through a critical connection between research and pedagogy, and through participatory action which attempts to address problems that communities face (see Bridger and Alter 2006); problems that often expert knowledge, advocacy models of service delivery and politics associated with technocratic elitism has helped create (Yapa 2006). These notions of public scholarship and open education embrace ‘a democratic politics that is highly interactive, reciprocal, and developmental’ (Peters 2003; Peters et al. 2005; Mitchell 2008). Likewise, community-based sustainable development projects, grassroots and critical MOOC projects, as well as other types

of radical pedagogy have offered cooperative styles of critical education as well as alternative and equitable routes to higher education, rooted in the fundamental historical principles of open education and popular universities.

Yet, Open Education has also aligned itself with technocratic versions of neo-liberalism, driving higher education 'markets' to 'mask' alliances with welfare economics through notions of 'learning innovation' founded on self-direction, the depersonification of academic value and the unbundling of educational 'products' and services. During recent occupations in the United Kingdom, Canada and elsewhere in Europe, students resisting the neo-liberal restructuring of universities have been viscerally outspoken about the need for fundamental changes in university governance and called for universally accessible, non-hierarchical systems.

A vision of open education as a *tool* evacuates its properly symbolic meaning of learning and pedagogy, and replaces these with a merely practical content, thus sacrificing an understanding of how subjectivities are remade or renegotiated when and if norms and practices change. The vision of an instrumental educational property system grounded in a very familiar, if often criticized, discourse of equality, freedom and progress (see Coombe and Herman 2004; Kelty 2004; Hall 2015) may well be seen as a veiled attempt to impose a particular practice on as much of the world as possible. Rather than opening up any true space for alternative cultural practices, 'official' practices may also re-inscribe the very responsibility and accountability that educational authorities and corporate structures have traditionally assumed.

Beyond the promotion of 'elite brands' and the preoccupation with standardized measures of external evaluation of institutions and programmes, social accountability

in academic or pedagogical improvement may invite more perspectives for critical analysis of how ongoing political and educational tensions are being negotiated, given the imperatives of contextual environments and cultural relevance, community resilience, sociocultural pedagogy or indeed public scholarship (see also Singh 2010). Yet, if improvement lies in the adoption of reflective practices, massive courses and analytics that are bound to a teleological view of technology and innovation, these too may lose whatever potential they might have for linking education to critical thinking, and learning to democratic social change.

I have attempted to open up the space for a critical, historically informed debate as well as research agendas that account for ongoing tensions and contradictions between openness, value and media technology, particularly as located in: advocacy and promotion within a new-media-saturated cultural politics of education; and a broader spectrum of learning varieties within spheres of alternative pedagogy and resistance.

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Acknowledgments

Part of the research conducted in this study was funded by the William and Flora Hewlett Foundation within the project 'Open Learning Networks' (Open University & Carnegie Mellon University, 2009-2012). I am grateful to my respondents for sharing insights and ideas. I am also grateful to David Kernohan, Giselle Ferreira and Robin Goodfellow for their useful feedback in the various drafts of this paper.

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Notes

¹ OER momentum has been sparked and led by free culture and technology stakeholders, educational technology and educator enthusiasts, universities and colleges and other agencies. These have ranged

from implementation bodies like Creative Commons to international NGOs like UNESCO and the Commonwealth of Learning (COL), as well as state and national government bodies and philanthropic organizations.

² Funding for OER projects is sourced from a mix of state and national government bodies, with private philanthropic organizations the most prominent funders in the field. The William and Flora Hewlett Foundation – possibly the largest in the field – has spent over \$100 million and funded over 150 projects across the world in the last fifteen years, including the seminal MIT OCW and OpenLearn (personal communication 2010; Hewlett 2009). The Bill and Melinda Gates Foundation funds projects for international development and education. The Open Society Institute and the Shuttleworth Foundation fund research and specific technology-based initiatives and promote the advocacy of copyright reform. In the United Kingdom, ongoing programmes of state funding, mainly led by the Joint Information Systems Committee (JISC) and the Higher Education Academy (HEA) have led to the development of several projects available through JORUM, the national repository for open learning and teaching materials, founded in 2002. Between 2008 and 2010, £9.4 million was allocated by the UK Higher Education Funding Council (HEFCE) to JISC and HEA for building and expanding work around the release of OER materials (HEFCE 2006; JISC 2009; McGill et al. 2011). In 2011 the US Department of Labor announced a \$2 billion funding programme over four years ‘for making innovative use of a variety of evidence-based learning materials, including cutting edge shared courses and open educational resources’ (US Department of Labor 2011). Similar programmes have been developed by the European Commission’s DG Education and Culture and the OECD (e.g. Hylén et al. 2012).

³ George Siemens and Stephen Downes, another key stakeholder academic from the OER movement – both faculty at a Canadian Distance Learning University, created an ambitious course and delivered it for the first time in 2009. The twelve-week course was called ‘Connectivism and Connective Knowledge Online Course’. They described the course as a MOOC. The content, delivery and support for the course was totally free, anyone could join and 2400 individuals registered, although the actual number of very active participants was much smaller (ca. 200). Similar experiments were undertaken in the late 2000s within the Wikiversity and Wikieducator platforms for courses around the development of free and open online educational

materials, community media and sustainable development, although with much smaller numbers.

⁴ See: www.p2p.org/about.

⁵ Perhaps the most visible example of this style of course (in terms of coverage and of the number of repetitions) has been DS106, a course on digital storytelling (<http://ds106.us/>) initially run out of the University of Mary Washington, now also running on the City University of New York and Temple University Japan sites, which clearly illustrates the connectivist conception of the MOOC principle in terms of aggregation and curricular design, where the work and reflection of student and educator are brought together and co-produced at a single location.

⁶ See: <http://www.khanacademy.org/>.

⁷ See: <http://web.mit.edu/newsoffice/2011/mitx-education-initiative-1219.html> (press release).

⁸ See: <http://www.coursera.com>.

⁹ See: <http://www.udacity.com>.

¹⁰ See: <https://www.futurelearn.com/about>.