

CHAPTER 2

What Sort of Open?

What if in fact there were ever only like two really distinct individual people walking around back there in history's mist? That all difference descends from this difference?

—David Foster Wallace

Introduction

Having outlined the broad argument of the book in the previous chapter, this chapter will add some depth to the concept of 'open' as it relates to education, setting out motivations for the open approach, and some of the relevant history in the development of open education. This will help inform the next five chapters, each of which takes a particular example of open education.

In the previous chapter the acceptance of the open approach in education was set forward. One needs only consider the variety of ways in which the term 'open' has been used as a prefix to note this: open courses, open pedagogy, open educational resources, open access, open data, open scholarship – it seems every aspect of educational practice is subject to being 'open' now. I work at the Open University in the UK and often comment that if you were establishing a university now, then 'Open University' would be

a good choice of name. It has certainly aged better than some of the alternatives that were suggested at its inception, including ‘the University of the Air’.

The examples of openness mentioned can be seen as the latest interpretations of that approach as applied to education. But these forms of openness did not arise in a vacuum, and their roots have more than just a historical interest for the current debates. In this chapter I will explore some of the history of openness in education in order to establish a basis for the subsequent chapters, which examine a particular aspect in detail.

Avoiding a Definition

Before examining the history, however, it is worth considering what we mean by ‘openness’. It is a term that hides a multitude of interpretations and motives, and this is both its blessing and curse. It is broad enough to be adopted widely, but also loose enough that anyone can claim it, so it becomes meaningless. One solution to this is to adopt a very tight definition. For instance, we might argue that something is only open if it conforms to David Wiley’s 4 Rs of Reuse (2007a):

- Reuse – the right to reuse the content in its unaltered/verbatim form (e.g. make a backup copy of the content)
- Revise – the right to adapt, adjust, modify or alter the content itself (e.g. translate the content into another language)
- Remix – the right to combine the original or revised content with other content to create something new (e.g. incorporate the content into a mashup)
- Redistribute – the right to share copies of the original content, your revisions or your remixes with others (e.g. give a copy of the content to a friend)

Wiley added a fifth R, that of ‘retain’ (the right to make, own and control copies of the content) in 2014 (Wiley 2014). This perspective would posit reuse, and therefore licensing, as the key attribute of openness. The Open Knowledge Foundation proposes a very precise definition of openness, because they are concerned with its misuse. Their definition is: ‘A piece of data or content is open if anyone is free to use, reuse and redistribute it – subject only, at most, to the requirement to attribute and/or share-alike.’ Each of the key terms is also described in detail (OKF n.d.)

While reuse is undoubtedly significant, it would also ignore some of the broader interpretations of the term, for instance while reuse may be an important aspect of open pedagogy, it also relates to a certain openness in approach, an ethos. A focus purely on reuse gives a content-centric view, and openness relates to practice also. The same is true for any tight definition of ‘openness’ we might adopt. We lose as much as we gain from restricting ourselves to such a definition. Therefore in this book I will accept that it is a vague term, with a range of definitions, depending on context. As I argue in Chapter 8, my intention is not to set out a rigorous orthodoxy as to what constitutes being open, or to expose open frauds, but to encourage engagement with open practices by academics and institutions.

So, if we reject a single definition of openness, what is the best way to approach it? It is probably a mistake to talk about openness as if it is one unified approach; rather, it is an umbrella term. There may have been a time when it was more unified, particularly in the early stages of the open education movement. To continue the battle metaphor from Chapter 1, early on it was simply a matter of positioning open vs. closed, but as the arguments advance, they become more nuanced. Not only are there different aspects of openness, but it may be that some are mutually exclusive with

others, or at least that prioritising some means less emphasis on others. One way of approaching openness is to consider the motivations people have for adopting an open approach. The following are some possibilities for such motivations, but by no means an exclusive list.

- Increased audience – The main aim here is to remove barriers to people accessing a resource, be it an article, book, course, service, video or presentation. This means it has to be free, easily shareable, online, and with easy rights. For example, Davis (2011) found that across 36 journals, those that were published under open access received significantly more downloads and reached a broader audience.
- Increased reuse – This is related to the previous motivation but differs slightly in that here the intention is for others to take what you have created and combine it with other elements, adapt it and republish. The same considerations are required as above, but with an extra emphasis on minimal rights and also creating the resource in convenient chunks that can be adapted. Whereas the first motivation might mean releasing an article online, the second motivation might lead someone to share the data that underlies it.
- Increased access – This is different from the first motivation in that the intention is to reach particular groups who may be disadvantaged. This may mean open access such that no formal entry qualifications are required to study. In this case open is not the same as free, since it may be that such learners require extra support, which is paid for in some way. Helping learners who often fail in

formal education has more of a focus on support and less than simply making a resource free. Increased access is not necessarily about price.

- Increased experimentation – One of the reasons many people adopt open approaches is that it allows them to experiment. This can be in the use of different media, creating a different identity or experimenting with an approach that wouldn't fit within the normal constraints of standard practice. For instance, many MOOCs have been using the platform to conduct A/B testing where they tweak one variable across two cohorts, such as the position of a video or the type of feedback given, and investigate its impact (Simonite 2013). The open course creates both the opportunity, with large numbers and frequent presentations, and the ethical framework that permits this. MOOC learners are not paying, so there is a different contract with the institution.
- Increased reputation – Being networked and online can help improve an individual's or an institution's profile. Openness here allows more people to see what they do (the motivation of increased audience) but the main aim is to enhance reputation. As an academic, operating in the open, publishing openly, creating online resources, being active in social media and establishing an online identity can be a good way to achieve peer recognition, which can lead to tangible outputs such as invites to keynotes or research collaborations. Issues of individual reputation and identity are addressed in Chapter 7, on open scholarship.
- Increased revenue – In the previous chapter I raised the issue of openwashing and using openness as a route to

commercial success, but it is also true that an open or part-open model can be an effective business model. The freemium approach works this way, where a service is open to a large extent, but some users pay for additional services, with services such as Flickr being an example. If this is the goal, then openness works by creating a significant demand for the product. For universities, this may equate to increased students on formal courses.

- Increased participation – It may be necessary to gather input from an audience without paying to access them. This could be crowdsourcing in research or getting feedback on a book or research proposal. Being open allows others to access it and then provide the input required.

To demonstrate how these different motivations would influence the nature of openness, let us take an imaginary scenario: a university wants to create a MOOC and approaches their educational technologist to come up with a proposal. The university senior management have heard about MOOCs and think they need to be active in this area. They seek the advice of our educational technologist, who consults with a range of different stakeholders and asks them, ‘What is the aim of the MOOC? What do you want from it?’

The person from marketing says he wants to increase the university’s online profile and reputation. From this perspective the proposed MOOC focuses on a popular subject, featuring a well-known academic. The subject will be ‘Life on Mars’. It will be expensive with high-quality production, acting as a showcase for the university and getting it in the press.

When the Dean of the Science faculty is consulted, she says they are concerned about student recruitment on postgraduate courses. They want the MOOC to bring in high-fee paying students from

overseas. The model that might work here is one that makes the first six weeks of the existing course open and targets a specific audience, who can then sign up after the first six weeks.

The educational technologist then speaks to an academic who is really keen to try a student-led approach. They feel frustrated by the customer-led focus of conventional teaching and see in MOOCs an opportunity to try some more radical pedagogic approaches that they have been blocked from implementing. They don't see it as particularly massive in terms of audience, but it will be a rich learning experience for those who do it, as the students will be creating the curriculum. This proposal is a MOOC based in Wordpress and featuring a range of technologies with learners co-creating the content.

Later the technologist has a conversation with a funding council who want to bring under-represented groups into science. They will need a lot of support, but they are willing to fund the provision of mentors and support groups in the community. Now they suggest a MOOC based on adapting existing materials, with carefully targeted support and minimal technical barriers.

From each of these perspectives, the resultant MOOC would be very different. It would be open in each of these scenarios, but with a different emphasis on the form that openness should take. Similarly, Haklev (2010) proposes four purposes in the development of OERs, which can be applied to open approaches in general:

- Transformative production – Here the process of production has a transformative effect on those involved. It can be through reflection on the teaching process or exposure to the models of open practice, but the main aim here is to transform an individual or, more usually, an institution's practice.

- Direct use – The aim is for a learner to be able to use the resource independently, so it needs to be complete.
- Reuse – In contrast to the previous purpose, here access by the learner is usually mediated by reuse by another party, such as an educator. Creating material for teachers to use places a different emphasis on the characteristics required than one aimed directly at the end learner.
- Transparency/consultation – The purpose here is to inform users about how the subject is taught.

Motivations may intersect and complement each other. For example, the open textbook movement is largely justified in terms of cost, in that it creates free textbooks and leads to significant savings for students, but there is also the motivation for reuse, since educators are free to adapt the book to their particular needs.

Open Education – A Brief History

When did the current open education movement start? This is a difficult question to answer, as the answer will inevitably be, ‘It depends what you mean by the current open education movement.’ This response is telling because it illustrates that the open education movement is not easily defined. In fact, like the definition of openness itself, it is probably best viewed not as a single entity but rather a collection of intersecting principles and ideas. This section will draw out these principles and ideas, by focusing on the roots of open education.

I would suggest that there are three key strands that lead to the current set of open education core concepts: open access education, open source software and web 2.0 culture.

Open Universities

Open access to education goes back beyond the foundation of the Open University (OU), with public lectures, but let us take the establishing of the Open University as the start of open access education as it is commonly interpreted. Originally proposed as a 'wireless university' in 1926, the idea gained ground in the early 1960s, and became Labour Party manifesto commitment in 1966 (<http://www.open.ac.uk/about/main/the-ou-explained/history-the-ou>). It was established in 1969 with the mission statement that it is 'open to people, places, methods and ideas'. The aim of the OU was to open up education to people who were otherwise excluded because they either lacked the qualifications to enter higher education, or their lifestyle and commitments meant they could not commit to full-time education. The university's approach was aimed at removing these barriers. Cormier (2013) suggests the following types of open were important:

Open = accessible, 'supported open learning', interactive, dialogue. Accessibility was key.

Open = equal opportunity, unrestricted by barriers or impediments to education and educational resources.

Open = transparency, sharing educational aims and objectives with students, disclosing marking schemes and offering exam and tutorial advice.

Open = open entry, most important, no requirement for entrance qualifications. All that was needed were ambition and the will/motivation to learn.

In this interpretation, open education was part-time, distance, supported and open access. The OU model was very successful and a number of other open universities were established in

other countries using this as a basis. The need to expand access to higher education to those who could not access the conventional model became something many governments recognised, and the reputation of the OU for high-quality teaching material and good learning experience made the approach respectable. Many of the aims of such open universities, to democratise learning and reach excluded groups, would re-emerge with the arrival of MOOCs (e.g. Koller 2012).

Note that there is no particular stress on free access in this interpretation. Education was to be paid for by the respective government, and open universities were closely allied to whatever form of widening participation they wished to adopt. The emphasis was often on *affordable* education, but before the internet, the other forms of openness were seen as more significant. It was with open source that ‘open’ and ‘free’ began to be linked or used synonymously.

Open Source and Free Software

In the 1970s, Richard Stallman, a computer scientist at MIT, became frustrated with the control over computer systems at his institution, and this frustration would lead to a lifelong campaign about the rights associated with software. In 1983 he started the GNU project to develop a rival operating software system to Unix, which would allow users to adapt it as they saw fit. The code for GNU was released openly, in contrast to the standard practice of releasing compiled code, which users cannot access or modify. He saw early on that licenses were the key to the success of the project and championed the copyleft (in contrast with copyright) approach, that allowed users to make changes as long as they acknowledged the original work (Williams 2002). As we shall see,

this approach and the GNU licence had a direct link to the open education movement.

Stallman advocated that software should be free in this sense of repurposing and set up the Free Software Foundation in 1985. This is an ideological position about freedom. As the GNU organisation puts it, ‘The users (both individually and collectively) control the program and what it does for them. When users don’t control the program, the program controls the users.’ (<http://www.gnu.org/philosophy/free-sw.html>). There are four basic freedoms advocated by the free software movement, which echo the 4 Rs of Reuse and later licences in education:

A program is free software if the program’s users have the four essential freedoms:

- The freedom to run the program, for any purpose (freedom 0).
- The freedom to study how the program works and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this.
- The freedom to redistribute copies so you can help your neighbour (freedom 2).
- The freedom to distribute copies of your modified versions to others (freedom 3). By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.

Note that these freedoms are about control, not about cost. Indeed Stallman is quite clear that it does not preclude commercial use and that it is legitimate to purchase ‘free’ software. The oft quoted phrase is ‘freedom as in speech, not as in beer’, but this confusion

between these two types of ‘free’ is one that arises repeatedly with regards to open education.

Related to the free software movement was the open source software movement. The two are often combined and referred to as FLOSS (Free/Libre Open Source Software). The open source movement is commonly credited to Eric Raymond, whose essay and book, *The Cathedral and The Bazaar* (2001), set out the principles of the approach. The open source movement, although it has strong principles, can perhaps be best described as a pragmatic approach. Raymond appreciated that software development was nonrivalrous (in that you could give it away and still maintain a copy), and that code could be developed by a community of developers, often working out of their own time and not for financial reward. The driving principle behind open source is that it is more efficient to produce software by making it open. The mantra coined by Raymond is that ‘given enough eyeballs, all bugs are shallow’. By making code open then, better software is developed.

The Free Software Foundation make a clear distinction between Free Software and Open Source, stating that:

[T]he two terms describe almost the same category of software, but they stand for views based on fundamentally different values. Open source is a development methodology; free software is a social movement. For the free software movement, free software is an ethical imperative, essential respect for the users’ freedom. By contrast, the philosophy of open source considers issues in terms of how to make software ‘better’ (Stallman 2012).

Raymond himself emphasises the practical nature of open source, stating that ‘To me, Open Source is not particularly a moral or

a legal issue. It's an engineering issue. I advocate Open Source, because very pragmatically, I think it leads to better engineering results and better economic results' (Raymond 2002).

To non-developers this distinction often seems pedantic or obtuse. The two are generally clumped together, and indeed many open source advocates are passionate about freedoms also. It is worth noting the difference, however, as it has resonance with the motivations in open education. Openness in education can be seen as a practical approach; for instance, the learning object movement of the early 2000s often used the argument of efficiency, as we shall see in the next chapter. But the 'social' argument is also at the core of open education, making the outputs of publicly funded research available to all, rather than in proprietary databases.

The free and open source software movements can be seen as creating the context within which open education could flourish, partly by analogy, and partly by establishing a precedent. But there is also a very direct link. David Wiley (2008) reports how in 1998 he became interested in developing an open licence for educational content and contacted both Stallman and Raymond directly. Out of this came the open content licence, which he developed with publishers to establish the Open Publication Licence (OPL). This licence had two forms: form A, which prohibited the distribution of modified versions without the permission of the author; and form B, which prohibited the distribution of the book in paper form for commercial purposes. As Wiley comments, this naming convention wasn't useful, as it didn't tell you what the licence referred to, and similarly, the badges didn't tell you which of the two had been selected. But it was adopted by O'Reilly press, and became the forerunner to a more widely adopted licence.

The OPL proved to be one of the key components, along with the Free Software Foundation's GNU licence, in the development of the Creative Commons licences by Larry Lessig and others in 2002 (Geere 2011). These addressed some of the issues of the open content licence and went on to become essential in the open education. The simple licences in Creative Commons (CC) allow users to easily share resources and isn't restricted to software code. The user can determine the conditions under which it can be used – the default is that it always acknowledges the creator (CC-BY), but further restrictions exist, such as preventing commercial use without the creator's permission (CC-NC). The Creative Commons licences are permissive rather than restrictive. They allow the user to do what the licence permits without seeking permission. They don't forbid other uses, such as commercial use for a CC-NC licence; they simply say you need to contact the creator first. These licences have been a very practical requirement for the OER movement to persuade institutions and individuals to release content openly, with the knowledge that their intellectual property is still maintained.

The direct connection to Tim O'Reilly segues into the next influential development, as it was O'Reilly who coined the term 'web 2.0'.

Web 2.0

Although it is a phrase that has now been through the peak of popularity and passed into history, the web 2.0 phenomenon of the mid '00s had a significant impact on the nature of openness in education. The term was used to recognise a growing development in the way in which people were using the web. It wasn't a deliberate movement, but rather a means of distinguishing the more read/write, user-generated nature of a number of tools and approaches.

In 2005 Tim O'Reilly outlined eight principles of web 2.0, which characterised the way tools were developing and being used. This included sites such as Wikipedia, Flickr and YouTube. Some of the principles turned out to be more significant than others, and some related more to developers than users, but they encapsulated a way of using the internet that shifted from a broadcast to a conversational model. This set of developments would later combine with social media such as Twitter and Facebook.

In terms of open education, the web 2.0 movement was significant for two major reasons. Firstly, it decentralised much of the engagement with the web. Educators didn't need to get approval to create websites; they could set up a blog, establish a Twitter account, create YouTube videos and share their presentations on Slideshare independently. This created a culture of openness amongst those academics who adopted such approaches, and this would often lead to engagement with open education in some form. We shall look at this in more detail in chapter 7 when online identity is considered. Secondly, it created a context where open and free were seen as the default characteristics of online material. Users, be they educators, students, potential students or the general public, had an expectation that content they encountered online was freely accessible.

Coalescing Principles

From these three main strands – open universities, open source and web 2.0 – a number of principles coalesce into the current open education movement. From open universities we have the principles of open access and removal of barriers to education. This was restricted to a particular interpretation of open education, however, and closely allied with particular national

policies. Open source software gives us principles of freedom of use, mutual benefit in sharing resources and the significance of licences. This didn't spread much beyond the specialised community of software developers. Lastly, web 2.0 provides the cultural context within which the openness becomes widely recognised and expected. A list of general principles inherited from these three strands might be:

- Freedom to reuse
- Open access
- Free cost
- Easy use
- Digital, networked content
- Social, community based approaches
- Ethical arguments for openness
- Openness as an efficient model

These are digital, networked transformations; the nonrivalrous nature of digital content and the easy distribution of content and conversations online, underlies all of them. And while it is possible to think of them as a cluster of interconnecting principles, there are camps, or smaller clusters, within this general grouping. For instance, the notion that content should be free in terms of price was not a driving concern of the open universities or the open source software movement, although open source software often is free. It was with the development of web 2.0 that free became an expectation. One can see the various aspects of openness in education as aligning themselves with some of these principles, but not all of them. For instance, the commercial MOOCs are taking the free cost and open access element, but not necessarily the freedom to reuse. It is because of this blend of principles that I have resisted a simple definition of openness in education

and would rather propose it is best viewed as this collection of overlapping principles.

Conclusions

Openness in education has many strands leading to it, and depending on the particular flavour of open education one is considering, some of these will be more prevalent than others. This makes talking about open education as a clearly defined entity or movement problematic, and adopting a single definition is counter-productive. Just as open education has many inter-related aspects, such as open access, OER, MOOCs and open scholarship, so it is defined by overlapping but distinct influences. In this chapter three such influences, namely open universities, open source and web 2.0 have been proposed, but there will be others, for example, from a socio-political perspective. Some have detected elements of neo-liberalism in the popularity of MOOCs (Hall 2013). It is not the intention of this book to explore these aspects, although such an analysis with regards to open education would be fruitful.

Having looked at the possible motivations for the open approach, and the influencing factors that have led to its current configuration, the different aspects of openness in education can now be considered. The first of these is perhaps the most venerable, that of open access publishing, which is the subject of the next chapter.