Abstract:

This chapter summarizes the growth and promise of the open educational resources (OER) movement. At the same time, it emphasizes that in order for OER to achieve its potential in widening equitable access to education, practitioners must be mindful of several pitfalls. These problems and pitfalls include the assumption that all students have access to digital technologies. Another issue relates to the overreliance on under-compensated or voluntary academic labour to create OER. A third pitfall is the ignorance of critical accessibility requirements while developing OER. The fourth issue relates to the disregard for data privacy when utilizing educational technologies. Finally, there is the mounting problem of the undermining of the spirit and practice of "open" education with the entry of commercial publishers into the OER space. Each of these challenges and issues is addressed in this chapter.

5

DELIVERING ON THE PROMISE OF OPEN EDUCATIONAL RESOURCES

Pitfalls and Strategies

Rajiv S. Jhangiani

"Higher education shall be equally accessible to all on the basis of merit," or at least so proclaims Article 26 of the United Nations' Universal Declaration of Human Rights (1948). However, whether due to a shortage of seats, deficient infrastructure, or geographic or economic barriers, access to higher education remains an elusive dream for millions. This access dilemma is true in the Global South as well as the Global North, where education continues to shift in many countries from being considered a public good worthy of societal investment to an individual choice available only to those who enjoy significant privilege. For example, according to a study commissioned by the U.S. Department of Education, in just the first decade of this century, an estimated 2.4 million students in that country could not attend or complete college because of the cost barrier (Advisory Committee on Student Financial Assistance, 2006). Indeed, higher education is structured to reinforce and replicate existing power structures in ways that are sometimes blatant (e.g., legacy admissions) and sometimes subtle (e.g., exorbitant textbook costs).

While there are numerous institutional innovations and international initiatives that are being developed and deployed to address this problem (e.g., MOOCs, OERu, Commonwealth of Learning, etc.), in this chapter I will discuss the potential of open educational resources (OER) to help widen equitable access to higher education, including within traditional post-secondary institutions. In addition, given increasing government and institutional support of the creation, adaptation, and adoption of OER through both funding and policy, I will briefly outline a few pitfalls that OER advocates and practitioners and policy makers must attend to if they wish to deliver on the great promise of OER.

The Problem of Unaffordable Textbooks

The cost of commercial textbooks in North America rose by over 1,000% between 1977 and 2016, and by 204% between 1997 and 2018 (Perry, 2018). For context, this was between three and four times the rate of inflation and, incredibly, at a higher rate than any other consumer good. These data often surprise faculty who select and assign these expensive textbooks to their students. But faculty ignorance of the price of commercial textbooks is facilitated by what is a good example principal-agent problem, wherein one person (an agent) makes decisions that impacts another (the principal; Eisenhardt, 1989). What these faculty members might want to remind themselves when selecting textbooks is that the true cost of expensive textbooks is measured in terms of educational outcomes. For example, a survey of over 22,000 students in Florida showed that two-thirds of undergraduate students in that state do not purchase at least some of their required textbooks because of their high cost, while nearly half tend to choose or drop courses on the basis of textbook costs (Florida Virtual Campus, 2016). These findings have been echoed by recent research in British Columbia, where students who make these same choices were found to be more likely to hold a student loan, work more hours during the week, or identify as members of a visible minority group (Jhangiani & Jhangiani, 2017).

The problem of unaffordable textbooks, while certainly not the most significant contributing factor to inequitable access to higher education, is a tangible issue that the open education movement has great potential to tackle. Indeed, the creation, adaptation, and adoption of open textbooks and other OER is rapidly becoming normative practice in North America. For example, OpenStax, an open textbook project based at Rice University, reports that its 29 textbooks have been adopted by 48% of all U.S. post-secondary institutions (Ruth, 2018). In British Columbia, open textbooks from the curated BCcampus repository have been adopted by more than 450 faculty at 40 institutions (BCcampus, 2018). The UK Open Textbook project was launched in 2017 (UKOpenTextbooks, n.d.). And the University of Minnesota–based Open Textbook Network continues to grow rapidly, exceeding 600 campus members at the time of writing, including expansion into Australia.

Although the use of open textbooks is a burgeoning phenomenon in the Global North, despite significant challenges (cf. Hodgkinson-Williams, 2014, 2015), it is also beginning to gain traction in pockets across the Global South for reasons that range from a preference for localized content to reducing textbook costs. For example, approximately 10 million Siyavula open textbooks were printed and distributed to government schools across South Africa between 2012 and 2014 (Pitt & Beckett, 2014). In addition, OER have been integrated into the teacher education program at the Open University of Sri Lanka (Karunanayaka & Naidu, 2017). These are not singular initiatives. In fact, projects to support OER creation and use by teachers have been launched in India (Kasinathan & Ranganathan, 2017), Afghanistan (Oates, Goger, Hashimi, & Farahmand, 2017), Colombia (Sáenz, Hernandez, & Hernández, 2017), and Mauritius, Tanzania, Uganda (Wolfenden, Auckloo, Buckler, & Cullen, 2017). In a survey of 295 randomly selected instructors from 29 higher education institutions in Brazil, Chile, Colombia, Ghana, Kenya, South Africa, India, Indonesia, and Malaysia, 51% reported having used OER (de Oliveira Neto, Pete, Daryono, & Cartmill, 2017).

With a view to sustainability, many post-secondary institutions have been taking steps to embed support for open textbooks in several key ways including within their policies

(e.g., tenure and promotion criteria), procedures (e.g., course development workflow), practices (e.g., course registration timetables that indicate courses that are using OER), roles (e.g., the creation of OER librarian positions), and budgets (e.g., allocations for OER grants). Open textbook initiatives themselves have grown more intentional and programmatic such that a number of institutions across North America now offer entire academic programs with zero required textbook costs, known as Z Degrees or Zed Creds in the U.S. and Canada, respectively (Bliss, 2015).

On the surface, the argument for OER as a force for equity is straightforward and powerful: Ensure free, immediate, and permanent access to educational resources and marginalized students who disproportionately suffer as a result of high textbook costs will disproportionately benefit, in both economic and educational terms (see Colvard, Watson, & Park, 2018 for evidence of this disproportionate impact). However, alongside this transformational potential lies several pitfalls, including inequitable access to the technology and platforms necessary to deliver OER, an overreliance on voluntary academic labor to create OER, a neglect of accessibility requirements when developing OER, disregard for data privacy, and the practices of commercial publishers of "open washing" (explained later in this chapter).

Digital Redlining

A term derived from racist housing loan practices in the United States known as "redlining," digital redlining examines the causes of the digital divide, including "a set of education policies, investment decisions, and IT practices that actively create and maintain class boundaries through strictures that discriminate against specific groups" (Gilliard & Culik, 2016). In the context of OER, considering digital redlining might interrogate the assumption that all students own or have access to internet-enabled devices or that they enjoy internet access of sufficient quality, including when off campus. More broadly, considering digital redlining requires investigating whether initiatives that center on free digital textbooks are addressing or in fact exacerbating present inequities in the classroom. Strategies that may be deployed to tackle this issue include ensuring after-hours access to computing facilities on campus, establishing a no-cost student laptop/tablet loan program, delivering digital content offline (e.g., using CDs, USB drives, or other innovations such as the Commonwealth of Learning's Classroom-Without-Walls system), and exploring low-cost print (including print on demand) options for open textbooks.

Over-Relying on Voluntary Academic Labor

Although advocates of OER often articulate the importance of social justice and equity, this thinking is usually limited to students and not extended to the educators and subject matter experts who create or adapt OER. It is a fair appraisal to say that the OER movement is guilty of an over-reliance on voluntary academic labor (or at least severely under-compensated academic labor) to create, peer-review, and contextualize OER. This practice perpetrates an implicit form of creative redlining, one that reserves the capacity to create or adapt OER for those who already enjoy positions of privilege, such as the tenured or those who do not need the income (Jhangiani, 2018). Unfortunately, problems that stem from a lack of diversity in design teams have long been witnessed in products that range from automatic soap dispensers (that have been known to fail to recognize hands with

darker skin tones) to voice recognition applications (that fail to correctly interpret women's voices). If the OER movement values not just diversity but also inclusion, it must ensure equitable access not just to knowledge but also to knowledge creation. Providing incentives for OER creation and adaptation, whether during the tenure and promotion process, time releases, or other forms of institutional recognition is an effective strategy. However, institutions should ensure that these incentives and opportunities are also available to contingent and non-tenure-track faculty.

Overlooking Accessibility

Consider the following: Open textbooks that are published in only PDF format; images that are embedded without including alternative text; videos that are uploaded without captioning; and charts that cannot be interpreted by those with color blindness. These are just four of the many ways in which the issue of accessibility is often overlooked when trying to address access via open educational resources. Although resources such as BCcampus' Open Textbook Accessibility Toolkit (Coolidge, Doner, Robertson, & Gray, 2018) and projects such as the Inclusive Design Research Centre's Flexible Learning for Open Education provide guidance and support to the OER movement, inclusive design practices have not yet been universally adopted. A simple but effective strategy to address this issue is for institutions and granting agencies to embed accessibility requirements among the criteria for OER projects that receive funding while ensuring that the necessary training and support is made available (e.g., from the institution's Office for Services for Students with Disabilities).

Disregarding Data Privacy

Educators are too often unwitting brokers for surveillance capitalism. Whether it is the use of platforms like Turnitin, where students are required to submit their academic work for automated plagiarism detection or the use of the platforms of commercial publishers that monitor students' online activity, student data is often commodified and monetized by ed tech companies (Morris & Stommel, 2017). These concerns apply equally within open education, given both the number of commercial players entering this space and the number of groups using proprietary tools and platforms to achieve open ends. As Amy Collier reminds us:

> we have to realize that there is no such thing as harmless collection of data. Or benevolent collection of data. Much of what we collect could be used in ways we do not want it to be used, to harm or imperil our students. This disproportionately affects our most vulnerable students. Low-income students, students of color, LGTBQ+ students, students who are immigrants . . . their data are most at risk to surveillance, discrimination. And many of our vulnerable students are less likely to have experience with digital literacy skills.
>
> (2017, para 33)

Two tools that are helpful when critically evaluating digital tools and platforms are Audrey Watters's "Audrey Test" for education (2012) and Jesse Stommel's (2016) critical evaluation activity from his Digital Studies 101 course.

Open Washing

Following the initial strategies of denial (e.g., "OER are not a threat to commercial publishing") and discrediting (e.g., "OER are low quality"), commercial textbook companies have lost enough market share to open textbooks to turn to a third strategy: co-option. At the present time most of the large traditional textbook publishers have launched their own "open" platforms. However, as with the environmentalism movement and the phenomenon of greenwashing, we are increasingly witnessing something that has been referred to as "open washing" (Openwashing, n.d.) or sometimes "*faux*-pen" (Searls, 2009). In simple terms, open washing involves a company using the language of open education to dress up what is otherwise a traditional, proprietary practice. For example, such a practice may involve hosting open textbooks on a platform that requires registration and password protection, which, in turn, enables data tracking, surveillance, and monetization. Another instance of this less-than-honest approach is the use of the term "open" to describe resources that are not openly licensed or that may not be revised or remixed (Wiley, 2015). Still another widely deployed tactic is to impose restrictions on uses of content such as copying and pasting or printing. Institutions of higher education are, thus, increasingly wading through waters that are being deliberately muddied, often in a way that focuses solely on alleged cost savings to students at the expense of faculty choice, student agency, and data privacy. Although excellent efforts are being made to articulate the values and practices of "open" (see the CARE framework; Petrides, Levin, & Watson, 2018), it is important to be aware that the battle for open is not occurring on neutral territory (Weller, 2014).

Cable Green from Creative Commons has articulated a number of questions that serve as an effective starting list when interrogating the use of the term "open" in marketing materials or vendor pitches. These include:

- What will your company be contributing to the Commons?
- What content, software, [and] services will you share freely [without having to register and without tracking] and under open licenses [in editable and downloadable format]*?*
- How will your work increase equitable access to quality OER?
- Will you give more than you take? Are you contributing back useful OER to the Commons . . . in addition to taking and reusing existing OER? Please give some examples of what you will contribute.
- How will you develop the trust with educators and the open education community?

(2018)

Closing Thoughts

The goals of the open education movement are noble, lofty, and utterly worthy. However, like all educators, open educators are capable of perpetrating harm even with the very best of intentions. As the movement continues to mature and grow more diverse, more attention is being paid to voices at the margins. However, as the pitfalls briefly described in this chapter illustrate, it is not until the marginalized are truly welcomed, and not suppressed, tolerated, or perceived as inconvenient, that the open education movement will be able to

fulfill its true potential. Therein lies the gap between diversity and inclusivity. As Maha Bali reminds us:

In open online spaces, opening doors is not enough.
In open online spaces, an open door means easy exit just as it means easy entry.
In open online spaces, we are not there on equal footing.
In open online spaces, we are not equally fragile.
It is everyone's responsibility to listen and care and support marginal voices. Whether or not they wish to speak. Whether or not they wish to be present. Whether or not they like what we do.
It is everyone's responsibility to recognize their own privilege and to use it with purpose.

(2016, para. 19)

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