

Introduction to Open

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The creation and spread of knowledge has always redefined the possibilities of the human experience. Among all the inventions of humans—water treatment, bows and arrows, space travel—formal education is, perhaps, the most powerful. Whether in the form of trade apprenticeships, religious schools, or modern universities, education is the principal way in which we pass skills and knowledge from one person, and even one generation, to another. At the heart of education lies an inquiry and understanding of how it is that we come to know. In modern times this includes the development and application of the scientific method, which has become vital to the creation and dissemination of knowledge. As education becomes more accessible, affordable, and flexible, knowledge and skills act, increasingly, as tools for the empowerment for the world's poor. In fact, studies point to education as being associated with better health, improved well-being, and increased economic empowerment.¹

This notion that education can unlock a person's potential is relatively non-controversial. More controversial is the related notion that education should be made available to all. Indeed, despite the fact that it is specifically mentioned in Article 26 of the United Nations Universal Declaration of Human rights,² this 'education as a fundamental human right' idea is a relatively recent phenomenon. Historically, learning was an activity reserved for privileged citizens: the priestly class, the wealthy, men. In *The Theory of the Leisure Class*, Veblen

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(1899/2009) argues that the ‘learned class’ has therefore long been associated with the aspects of higher education that have no immediate industrial use, such as the study of the classics or music. However, over the last couple of decades advances in technology have enabled the marginal cost of education, such as the sharing of resources, to approach zero.³ This means that barriers to education are now being removed for a broader swath of humanity than at any time in history. What is more, that all people should have equal access to not only job skills-related education but also a liberal arts education is a case that can be made more strongly on a human rights platform than on an economic empowerment platform. The real tragedy of poverty is not that the poor need more opportunities to be factory foremen, office managers, or stock traders. The real tragedy is the loss of every scientific discovery, artistic work, invention, new business, and cultivated mind because of lack of opportunity according to random chance at birth.

Unfortunately, educational inequality abounds. Braun (2014) states that as many as 57 million school-aged children worldwide do not attend primary school. In 1999 the ambitious *Voices of the Poor* project was launched in order to conduct field interviews with tens of thousands of poor people from around the globe.⁴ With regard to education, poor people identified the strain of costly and distant schools, lack of quality education, feelings of low self-worth, and competition with child labor as widespread educational problems. In his study of poverty in Kolkata (Calcutta), India Thomas (1997) echoes this last point:

‘Among the poor, children often have to start work at the age of eight and so are unable to complete their primary education. This means that the entire blue-collar labor force will continue to be functionally illiterate for another generation’ (Thomas, 1997: 117).

Educational inequalities are as much a reality in affluent and industrialized societies as they are in developing economies. In countries as diverse as New Zealand, Canada, and the United Kingdom, the histories of colonization and immigration have been associated with disparities in access to high quality education. Kozol (1992) points to racial segregation as a primary source of what he calls ‘savage inequalities.’ He traces systematic differences in per pupil expenditure, funding structure, and facilities between affluent and poor minority school districts in the United States. This trend endures in the United States to the present: high schoolers taking advanced placement or international baccalaureate courses consistently outperform their less advanced counterparts on various measures of academic achievement and poor students are underrepresented among the educational elect.⁵ In just the first decade of this century, 2.4 million American students either did not attend, or could not complete, college because of the cost barrier.⁶

The open education movement offers one possible, partial remedy to educational inequality. The most obvious benefit of open education is in its low cost. The word ‘open,’ in this sense, means ‘allowing access to’ although it is also often equated with ‘free of cost.’ In fact, most open education resources are freely

available and even in cases where they are low cost, they still help to drive the market toward a lower price point. By removing or substantially reducing the expense normally associated with software, textbooks, and course fees, education becomes more accessible to more people. The open education movement can also help raise the quality of education for all students because instructors are better able to share and build on one another's pedagogical innovations. It is here, in the second sense of 'open,' meaning customizable by and shareable among instructors, that we have the potential to design more engaging, locally relevant, interactive, and effective teaching resources.

It is for precisely these reasons that open education often seems like a crusade. It is a values-based and mission-driven movement every bit as much as it is practical and technological. The voices of open advocates and champions are often impassioned in the way typical of people who are in the throes of rapid and successful social change. The editors of this volume are no different. We prize education for what it can unlock and experience a great deal of purpose in our role as instructors. As we became acquainted with open practices we fell in love. It was when this passion rose to a boiling point that we decided to create this volume.

This book is intended to share the principal voices, motivations, and practices of the open movement. Most of our contributors work within academia (these include faculty, librarians, and learning technologists), while others work to support the movement from within the private and non-profit sectors. They all care deeply about scientific progress, the democratization of education, pedagogical innovation, and the many ways in which these goals support one another. The practices they discuss encompass a broad range, including the creation, adaptation, and adoption of open educational resources, open pedagogy, open course development, open science, and open access. Despite this heterogeneity, they all wage parallel battles for access and progress and against territoriality and tradition (including traditional notions of prestige).

You will notice several themes emerge across the chapters in this volume. In addition to the obvious focus on access, these include transparency, flexibility, credibility, and creativity. Access concerns scholarly publications, data, required course materials, and, of course, tertiary education itself. Transparency is manifested in the pre-registration of research hypotheses, course development on the open web, and faculty reviews of open textbooks. Flexibility includes the contextualization of open educational resources, hybrid delivery models, and flexible learning pathways built across an international network. Credibility is seen in the support of Open Educational Resources (OER) development by professional bodies, leading scholars serving on editorial boards of open access journals, and research on the impact of open textbooks on learning outcomes. And creativity is exhibited by student-creators of OER, collaborative efforts to develop ancillary resources, and the development of licenses, organizations, repositories, and other infrastructure to support the open movement.

We encouraged our contributors to share their personal journey along with their hard-earned insights. Of course, the personal narratives of Wiley, Green, Weller, Mackintosh, Bliss, and Smith chronicle the evolution of the open education movement itself. Whereas some chapters tell the story of large projects funded by government (Burgess) and philanthropic organizations (Baraniuk et al.), others (Hartnett; Diener et al.) reveal initiatives by individual rebel-pioneers. Several chapters double as practical how-to guides, whether for starting an open access journal (Weijers & Jarden), developing a platform to support collaborative scientific inquiry (Nosek), freely sharing teaching and learning resources (Strohmetz, Ciarocco, & Lewandowski; Miller & Zhao), redesigning course assignments to allow students to practice public scholarship (DeRosa & Robison), advocating for change within an academic department (Dastur), or supporting open access and open education from a university library (Walz; West). As much as this book reflects on the journey of the open movement up to this point, it also looks to the future – including the challenges we must navigate and the opportunities we must seize – if open is to become the default practice.

Initially, we conceived of this book as being primarily about open practices and resources as applied to our own discipline, psychology. Both of us work as researchers and instructors of psychology and we felt the naturalness of sharing open with our colleagues. As the chapters from our contributors arrived, however, we realized that the scope of these contributions were far broader than just our corner of the social sciences. Quite simply, the expert commentary on the history, current trends, and future of open education and science were too good to confine to psychology. Even so, readers should know that that initial framework, open psychology, still casts its shadow over this volume. You can see, for instance, a conspicuous number of contributions from psychologists (about half the chapters). You will also note that many broad concepts in open education such as open pedagogy, open textbooks, and open departments are illustrated in this book with examples drawn from psychology. In the opinions of the editors these should be treated as examples only and we hope that readers will feel empowered to modify these ideas in ways that fit their own disciplines.

In closing, we pose a direct call to readers. Open education, open science, open access, and open pedagogy are new phenomena. They are imperfect and many challenges remain to be overcome. However, as the open movement matures and gains momentum, and as the questions it poses grow increasingly nuanced, the boundaries of the movement continue to expand. The open movement represents both an optimistic promise for the future as well as a myriad of practical tools and strategies for the present. Although it is true that we hope to convince you of the merits of open, we do not demand that you ‘convert.’ Open is a gift on offer. Like any gift, it is up to you whether you think it is worthwhile to accept it. We only ask that you consider.

Notes

- ¹ Orr, Rimini & van Damme, 2015.
- ² UN General Assembly, 1948.
- ³ Rifkin, 2014.
- ⁴ Narayan et al., 2000.
- ⁵ Godsey, 2015.
- ⁶ ACFSA, 2006.

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