

## **BOOK REVIEW**

## OPEN: The Philosophy and Practices that are Revolutionizing Education and Science

RAJIV S. JHANGIANI and ROBERT BISWAS-DIENER (Eds.)

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Democratisation of education is the need of the hour across the globe. Before it is done, education needs to be liberated from the cost circumference in addition to removing other barriers. The "Open" movement is one such initiative that reduces the cost concerns while reaching the masses with quality educational resources. The present volume provides a broad spectrum of different dimensions of the "Open" movement, especially open educational resources, be they open access journals or open textbooks. The book is divided into four sections spread over 22 chapters. While the first section, "Introduction", acquaints the reader with the concepts of "Open" especially inclined to OER, the second section, "Open Practices", elaborates different "Open Practices" in the area of discipline of psychology. The third section, "Case Studies", presents the current scenario of "Open" initiatives from the glimpses and experiences of the personal journey of the authors. The last section, "Conclusion", closes the theme of the book.

In the very opening chapter, the editors — Biswas-Diener and Jhangiani — introduce the theme of the volume to the reader and build a plot for the next chapters to take over one by one. They find the "Open" movement as one possible partial remedy to unequal educational opportunities. Though many of the experiences and illustrations provided in this book are drawn from the disciplines of Social Sciences, especially the field of psychology, they give ample scope to readers to fit their own experiences into them. The chapter by Bliss and Smith tries to trace the history of OER since as early as 1994 when the National Science Foundation provided some grant money to California State University for developing the world-renowned platform MERLOT to provide online access to content almost free. The authors discuss the journey of OER development and see OER as a powerful tool in the hands of educationists to reach quality content with almost no cost to the aspirants. The authors find the concept of freedom to be at the core of OER that is "freedom of access to the content, freedom from cost, and freedom to use in any way".

Cable Green, in his chapter on open licensing, discusses the genesis of the Creative Commons open licensing policy. The policy provides a standard framework of licenses, which can be used to deal with different copyright situations. As the author notes, the open licenses have already been attached to over 1.2 billion intellectual works on nine million websites. The use of open license on the content has created categories of works with varied restrictions on their usage. The author claims that when the default on all publicly funded educational resources is "open" and not "closed" we will live in a world where everyone can attain all the education they desire. Huitt and Monetti, in their chapter on openness and the transformation of education and schooling, set an agenda to transform the traditional model of education to open education. The main aspects worth considering in this



transformation are: "purpose, focus, desired outcomes, assessments, processes, transparency, resources, work environment, and organisational structure" among others. The authors share their experiences in the area of psychology, which can be scaled to any other field suitably.

The chapter by Weller et al. focuses on the activities of the OER Research Hub at UK Open University. The authors discuss the potential of OER use and promotion in terms of improvement in student performance, saving on cost, and development of new methodologies and approaches to teaching and learning. The chapter adds knowledge to the investigation of the role of research in OER in the wake of emerging areas of genre. The authors present the important findings related to OER research from the perspectives of "informal learners, former learners, and educators" at large vis-à-vis use of OER for different purposes. Gurung, in his chapter, deals with a topic that is close to the heart of almost all the OER users, that is, "Are OE resources high quality?" The author compares the Big Publisher Books (BPBs) to open textbooks and other OER in terms of quality and other aspects such as cost, liking, and purpose among others. The study compares the perception of students towards both types of materials. The author keeps on addressing the concern over how to assess the quality of both the resources, especially OER, throughout the discussion in the chapter.

The next section, "Open Practices", opens with the chapter "Open Science" by Nosek. This chapter discusses a number of strategies with the help of which different professional societies are using open content - the concept of "Open" as such - to make research more quality oriented. The author presents a road map to enhance the "openness, transparency, and rigor of Science" with the systematic process of evaluating empirical evidence, enhancing capacity-building opportunities and extending normal incentives. The author further discusses the approaches adopted by Centre for Open Science (COS) in order to enhance "openness, integrity, and reproducibility of scientific research". The OERu - an international network of institutions - has been engaged in developing a MOOC programme for global learners. Mackintosh, in his chapter, narrates the journey of the development of the programme and discusses different processes of course design and development in "Open" environment. The programme is expected to meet the objective of providing "free, open, flexible, learner-centered, credit bearing, online education". The programme is a testament to "Open" philosophy adopted by OERu supporting "open design and development practices".

DeRosa and Robinson, in their chapter, redefine "Open" and its possible benefits accrued in terms of "Open" pedagogy. They provide illustration to explain the potential of the model of pedagogy and support the active role of learners in a collaborative effort of knowledge building. The different constructs used as exhibits are: Wikipedia assignments, Nova Project student video awards, class-related textbooks, and crowd-sourced syllabus. The chapter further elucidates the challenges faced in working for and in public while explaining the lessons learnt in that context through the realisation of "Power of Open". Different tools and techniques are made part of the development of eContent conforming to the philosophy of openness. Miller and Zhao, in their chapter, advocate the use of screencasts for the opening up of higher education. They emphasize opening the four walls of the classroom beyond use and repurposing of the educational resources. They see the videos created through screencasting as an effective means of content delivery. The issues connected with multimedia design find a prominent place in the discussion.

West, in the chapter, "Librarians in the pursuit of open practice", speaks about the role of librarian in the "Open" movement. She easily connects the "Open Practices" with the "mission of libraries". To her, it is the core value of a library to develop the domain of knowledge in an open and free environment, and develop into a larger community with sharing of resources. Thus, librarians can help the students in assimilating change that could enhance access to resources by "sharing expertise in curating resources" and "building information competency". The next chapter, by Walz, takes the involvement of libraries in the pursuit of "Open" movement to the next level. She invites the reader to explore "Open" in the unique context provided by the academic libraries. She shares her personal experiences and insights in the wake of open education. Her chapter discusses the issues connected with OER adoption by faculty, costing of learning resources, and potential and promises offered by the "Open" pedagogy.

Dastur, in the chapter "How to open an academic department", discusses the old notion of resistance to change. Through his argument, he advocates winning over the resistors and unleashing the potential of acceptance of the philosophy of "Open". He presents three main recommendations to organise and regulate this resistance and change it at the same time, *viz.* "encourage a departmental culture of openness, focus on quality of open educational resources, and encourage departmental control over open educational resources". While discussing the justification for change, the author elaborates on the theory of departmental resistance to change.

The third section, "Case Studies", offers seven different case studies. The section opens up with a case study by Weijers and Jarden in *The International Journal of Wellbeing* — an open access journal. The authors advocate the unparalleled access to resources provided by the open access journals, which promote "Open Scholarship". The authors elaborate on the concept of "Gold Open Access" and "Platinum Open Access" throughout this chapter. They claim that the Creative Commons licensing policy can be applied to the journals in order to enhance their access in the open domain.

Wiley, in the next chapter, sails the reader through his personal journey in the open education movement. The author elaborates on his idea of "Open" and implementing this idea by attaching the open license to eContent. He seeks a change in OER treatment to realise the potential of the idea of "Open". He also advocates for redefining the quality of OER to make them more effective and enable them to address issues in specific contexts. He starts his discussion with "Finding Open", and traverses through "Making Open", "Reusing Open", "Comparing Open", "Following Open", "Designing Open", "Defining Open", and then "Growing Open". The author refers to the concept of "Open Education Infrastructure" which includes "Open Competencies", "Open Educational Resources", Open Assessments", and "Open Credentials".

Ed Diener, Carol Diener and Biswas-Diener focus the attention of the next chapter on making textbooks cheaper and better. The authors are affiliated with the Noba Project - an open platform providing quality textbooks and educational material - and study the success story of the project and the challenges faced by them in their journey. To the authors, "new additions", "non-traditional economic model", and "size" keep the prices of a textbook high. The textbooks produced by the project have an edge over conventional textbooks in terms of price, ease of environment, remote access, individualization, use of alternate forms, active learning, and accessibility. The authors see the promotion of open source textbooks as the solution to costly conventional textbooks in future.

The next chapter, "Free is Not Enough", by Baraniuk et al. presents a case study on OpenStax - an open textbook publisher. Through their discussion, the authors bring home to the reader that being free is not enough to boost the "Open" movement, rather there are other key elements that need to be considered in order to enhance the effectiveness of the open education. The key elements considered important and crucial by the authors are: high quality, course relevance, and instructor support. The economic sustainability of OER at OpenStax as a model is at the core of the discussion in the chapter.

The BC Open Textbook is another project promoting open education by producing quality textbooks and educational material. Burgess presents the case study of this project, which holds a repository of over 150 open textbooks and promotes adoption of open textbooks at public institutions. The project works to raise awareness, maintain an academic focus, build capacity within institutions and specific disciplines, connect people with resources and experts, and draw from the knowledge of people in the area. The study discusses some of the challenges faced during the course of project implementation.

The chapter by Strohmetz, Ciarocco, and Lewandowski presents a case study of a website developed to share the strategies for teaching research methods and statistical applications. The website is dedicated to the field of psychology, though, this model can be replicated in other areas as well. The authors feel that an open access source is valuable only if potential recipients know of it and are able to use it. The authors highlight the challenges faced by them in making the initiative successful. Hartnett, in her chapter, presents her experiences in the development and maintenance of her blog, which she considers "not awful and boring" and also as the editor of *Teaching of Psychology Idea Exchange*. The blog is dedicated to the teaching of research methods and statistics in the discipline of psychology. The author feels that there are other ways of contributing to pedagogical processes than by publishing open textbooks. She considers that publications are not always necessary for sharing small teaching ideas. She advocates sustaining a "teaching blog" by presenting to people exactly what they want.

In the concluding section, and as part of one of the concluding chapters, Biswas-Diener discusses other peculiar challenges in the promotion of OER. He finds it hard to convince the instructors of psychology to switch over to open textbooks when they are more comfortable with their existing system. He addresses three issues in the chapter: problems with the basic narrative, common misconceptions concerning open resources, and problems concerning the best advocates for "Open". He tries to suggest how to fix them all during the discourse. Jhangiani, in his concluding chapter, advocates some of the prerequisites needed to boost the "Open" movement. He discusses the constructs; "Open Access", "Open Science", "Open Educational Resources", and "Open Pedagogy" as defaults. In doing so he tries to make a reference to the relevant points from the chapters in the book. To bring the reader home, he uses the "pencil" metaphor adopted from Roger's theory of diffusion of innovation, and relates it with the "Open" practitioner.

The "Open" movement is a desirable phenomenon of the modern era. It goes beyond the creation and use of Open Educational Resources. The authors of different chapters in this book touch upon various aspects falling on a broad spectrum from digital educational resources to different processes for the users. They introduce many new concepts through their discussions. However, the editors have avoided chapter numbers, which makes it difficult to identify the individual chapters. The case studies included in the volume belong to the field of psychology in many of the cases, however, they are adaptable to other disciplines as well. In some of the chapters, discussion emanates from the

personal experiences of the authors, which go beyond being merely case studies. Some more empirical studies could be added to the book in order to give readers more first-hand information on the use and sharing of digital educational resources. On the whole, the book catches up on not only the issues and concerns but also provides practical solutions, which could help the novice in the field to tackle such situations. The book is worth reading and should prove helpful for "Open" practitioners including policy makers and instructors.

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