1 MOOCS AND OPEN EDUCATION IN THE GLOBAL SOUTH

Successes and Challenges

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The United Nations (2015) announced ambitious goals for sustainable development, including Goal 4, to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. Further, in the *Education 2030* (UNESCO, 2015) framework for actions, UNESCO expressly suggested that massive open online courses (MOOC) (p. 40) and open educational resources (OER) (p. 31 and p. 41) should be promoted as powerful strategies to increase access to education and to improve the quality of learning as well. During the past decade, many other scholars have also consistently confirmed the potential of MOOCs and OER for development and to perhaps even transform education in fundamental ways (e.g., Anderson, 2013; Hodgkinson-Williams & Arinto, 2017; King, Pegrum, & Forsey, 2018; Koller, 2012). As people become familiar with these and other forms of open and distance learning, the advocacy base continues to expand.

Yet, not enough is known about the landscape of MOOCs and OER in the Global South. In fact, the Global South is a relatively new designation for countries that are emerging economically, mostly, but not exclusively located in Asia, Africa, the Caribbean, the Middle East, and Latin America, in comparison to wealthier countries (Hollington, Salverda, Schwarz, & Tappe, 2015). Gunawardena (2014) wisely argues, even if they are free and open, MOOCs will be of scant value to those in the Global South if they do not fit their specific context. The resources and examples connected with a particular MOOC must be relevant to the local community. In fact, a recent systematic review of publications on MOOCs and OER (King et al., 2018) revealed that more research is necessary to investigate how learners in countries or regions of the Global South manage to negotiate with the various challenges in MOOCs. Clearly, their stories and research findings should be integrated into the foundations of the design, delivery, and evaluation of MOOCs and OER in the Global South as well as in the rest of the world.

Despite the growing number of publications on MOOCs and OER, over 82% of published empirical MOOC research through 2015 has been from North America and Europe (Veletsianos & Shepherdson, 2016) and those trends have continued (Zhu, Sari, & Lee, 2018). Perhaps more interesting, findings from the developed economies and those from the Global South are often inconsistent, and, in some cases, even contradictory. In a recent study by Reich and Ruipérez-Valiente (2019), for example, a large data set of 5.63 million MOOC learners in edX courses was analyzed. The study examined data across six years (2013 to 2018) from courses developed at MIT and Harvard University and provided through the edX platform. The trends in MOOC participation

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clearly indicated that the growth of MOOC learners was mostly from some of the richest countries. Among the more than 5 million MOOC participants in this study, less than 1.5% were from the Global South. Worse still, as is often criticized in the MOOC research literature and prevailing press, MOOC completion rates continued to be very low with less than 4% of participants completing the MOOCs in which they had enrolled. Unfortunately, trend analyses did not project likely increases in completion rates in the near future.

Surprisingly, another study, focusing on MOOC usage in Colombia, the Philippines, and South Africa (Garrido et al., 2016) found that 80% of the participants in professional development MOOCs completed at least one course. More impressively, roughly half of the participants (i.e., 49%) earned certifications. The divergent results of these two studies signal that much additional research and experimentation is needed for better understanding and appreciation of MOOCs and other forms of open education in the Global South.

Despite the limitations of each of these studies, the dramatic differences in their findings naturally raise some striking questions including the following:

- Why are MOOC- and OER-related phenomena so different in the North and the South?
- What are the challenges and opportunities in the Global South?
- How does the Global South negotiate with various challenges inherent in MOOCs and OER developed elsewhere?
- What may have contributed to much higher rates of MOOC participation and completion in the Global South?
- In what ways does the Global South benefit from MOOCs and OER?
- What can we learn from the Global South to leverage MOOCs and OER for sustainable development?

The collection of chapters in this book attempts to answer critical questions, such as these, with first-hand accounts of MOOC and OER research, projects, programs, initiatives, evaluations, and policy development in the Global South. The 28 chapters cover a total of 47 countries, including 8 in Africa, 11 in Asia, 3 in the Caribbean, 16 in Latin America, 8 in the Middle East, and 1 in the Pacific. The following tables summarize the various countries that are directly addressed or reported on in the book.

What is clear from Table 1.1 is that a huge swath of the Global South is represented in the chapters of this book. They include both top 20 economies like China, India, Brazil, Mexico, Indonesia, Saudi Arabia, and Turkey as well as much poorer ones like Zimbabwe, Zambia, Uganda, the Bahamas, Somalia, and Fiji. Clearly, the educational resource base for the Global South is quite varied and differentiated. As shown by Atieno Adala in Chapter 24, research on OER in teacher education in six countries in Africa indicates that the creation, repurposing, use, and sharing of OER dramatically vary by country as well as by institution within each country. Issues of accessibility, awareness, and policy have considerable impact on ultimate use and extendibility of OER.

While we highlight the unique chapter from Adala here, we hope that the reader will find critical perspectives on the landscape of MOOCs and OER in the Global South across the 28 chapters of this book as well as the preceding Preface by us editors and Foreword by Mimi Lee. The chapters describe an assembly of national initiatives, international design and development projects, systematic literature reviews, empirical studies, and institutional policies. Of course, it also includes various design and development frameworks, applications, and evaluation criteria. To help you more quickly locate needed information, Table 1.2 summarizes the chapter topics, foci, and organizations found in this book.

Region	Countries and Chapters	
Africa	1. Egypt (Chapters 4, 22)	_
	2. Kenya (Chapters 24, 26)	
	3. Somalia (Chapter 24)	
	4. South Africa (Chapters 15, 16)
	5. Tanzania (Chapter 24)	/
	6. Uganda (Chapter 24)	
	7. Zambia (Chapter 24)	
	8. Zimbabwe (Chapters 16, 24)	
Asia	1. China (Chapters 3, 16)	
	2. India (Chapter 25)	
	3. Indonesia (Chapters 6, 17)	
	4. Malaysia (Chapters 17, 20)	
	5. Nepal (Chapter 9)	
	6. North Korea (Chapter 2)	
	7. Philippines (Chapters 17, 21)	
	8. Sri Lanka (Chapter 7)	
	9. South Korea (Chapter 2)	
	10. Thailand (Chapters 13, 17)	
	11. Vietnam (Chapter 17)	
Latin America	1. Argentina (Chapters 10, 18)	
	2. Belize (Chapter 18)	
	3. Bolivia (Chapter 18)	
	4. Brazil (Chapters 10, 18, 19)	
	5. Chile (Chapters 10, 18)	
	6. Colombia (Chapters 10, 16, 1	8)
	7. Costa Rica (Chapters 10, 18)	- /
	8. El Salvador (Chapter 10)	
	9. Ecuador (Chapter 18)	
	10. Guatemala (Chapter 10)	
	11. Honduras (Chapter 10)	
	12. Mexico (Chapters 10, 16, 17,	18)
	13. Paraguay (Chapter 10))
	14. Peru (Chapters 10, 18)	
	15. Uruguay (Chapter 10)	
	16. Venezuela (Chapter 18)	
The Caribbean	1. Bahamas (Chapter 16)	
	2. Barbados (Chapter 18)	
	3. Dominican Republic (Chapte	er 10
The Middle East	1. Israel (Chapter 22)	
	2. Jordan (Chapter 22)	
	3. Kuwait (Chapter 22)	
	4. Lebanon (Chapter 22)	
	5. Qatar (Chapter 22)	
	6. Saudi Arabia (Chapter 22)	
	7. Turkey (Chapter 11)	
	8. UAE (Chapter 22)	
The Pacific/Oceania	1. Fiji (Chapter 8)	
Total Countries	47	

 TABLE 1.1
 List of Countries Discussed in the Book

Section	Section 1: Historical Perspectives			
Chapter	Region of Focus	Countries covered	Main Topics	
2	Asia	South Korea North Korea	 Evolution and innovative roles of K-MOOC Unique opportunities to bridge two countries via K-MOOC Cultural sensitivities National initiatives International collaborations in MOOC and OER 	
3	Asia	China	 Landscape of MOOC in China: Trends and issues Systematic analysis of MOOC research in China: A critical review National initiatives by the Ministry of Education in China 	

TABLE 1.2 Chapter Foci, Topics, and Organization

	Section	2:	Current	Practices	and	Designs
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Chapter	Region	Country	Main Topics
4	Africa	Egypt	 Localized designs of MOOCs for the Global South Contextualization and globalization Cultural sensitivities and diversifications Access Localization and translation of content
5	Global	n/a	 OER challenges and solutions: The critical perspectives Contextualization and globalization Cultural sensitivities and diversifications
6	Asia	Indonesia	 MOOCs and MOOC-inspired courses and initiatives
7	Asia	Sri Lanka	A critical review of MOOCs in IndonesiaContextualized MOOC design and development
8	Oceania and the South Pacific	Fiji	 Culturally sensitive design of MOOC architecture Contextualization and globalization
9	Asia	Nepal	High school students in MOOCYounger generations of learnersInnovations in teaching and learning
10	Latin America	Argentina Brazil Chile Colombia Costa Rica Cuba Equador Guatemala Mexico Peru	 Systematic review of publications on MOOCs in Latin America Trends and issues as evident in research publications
11	n/a	n/a	Emotional benefits of diversity in MOOCsDesign MOOCs for diverse learners

12	Middle East	Turkey	• pdMOOC: Transforming professional development via MOOCs
13	Asia	Thailand	Thai MOOC for lifelong learning and open educationContinued educationLifelong learning
14	International organization initiatives	Commonwealth of Learning (COL)	Technology-enabled MOOCFaculty professional development
15	Africa	South Africa	Institutional learningIncubation of meaningful and innovative learning processes at different levels of the university

Section 3: MOOCs and Open Education for Professional Development

Section 4: Multi-Country Collaborations and Collections

16	Multi-national:	Bahamas	• MOOC for a course of change
	Africa,	China	Contextualization
	Asia, Latin	Colombia	 Cultural sensitivities and diversifications
	America,	Iran	• MOOCs as a transformational approach to
	North	Mexico	sustainable changes and development
	America,	Zimbabwe	
	The Caribbean	South Africa	
17	Asia and South	Asia-Pacific	MOOC development in APEC countries
	America	Economic	Contextualization and globalization
		Cooperation	• Cultural sensitivities and diversifications
		(APEC)	• Trends, research, and recommendations
		Indonesia	
		Malaysia	
		Mexico	
		Philippines	
		Thailand	
		Vietnam	
18	International	Inter-American	Landscape of IDBx MOOCs
	organization	Development	• Impacts of MOOCs on the academic, professional,
	initiatives	Bank (IDB)	and social life of learners in Latin America and the
	Latin America	(Caribbean
	and the		
	Caribbean		

Section 5: Government Policies and Strategies

19	Latin America	Brazil	 Development of open education in Brazilian higher education National and international policies advancing open education
20	Asia	Malaysia	Policies and implications for sustainable
20	11510	Tvididysid	development of MOOCs
			National and institutional policies
21	Asia	The Philippines	OER for development
			 Design and implementation of OER
22	Middle East	Jordan	 Arab MOOCs
		Saudi Arabia	Disruptive learning
		UAE	

TABLE 1.2 (Continued)

23	International organization initiatives Multi-national	The World Bank	World Bank initiativesDividend for developmentSustainable development
24	Multi-national Asia	6 African countries: Kenya, Somalia, Tanzania, Uganda, Zambia, and Zimbabwe India	 Does adoption of open educational resources (OER) lead to open education practices (OEPs)? Faculty use of OER as a resource for course development, training new faculty, lesson preparation, and student readings OER uses lead to practices of repurposing, creation and sharing of open education 16 MOOCs on agriculture in India
20	11514	man	 MOOCs for sustainable development
26	Africa	Kenya	Instructional design framework for online degree programs using MOOC and OERInstructional design
Sectio	on 7: The Future of	MOOCs and Open E	ducation
27	n/a	n/a	Intelligent MOOCsFuture of MOOCs and OER
28	n/a	n/a	Future of MOOCs and OERPredictions

Challenges Facing the Global South

Various scholars have examined the countless challenges to fully realize the potentials of MOOCs and OER in the Global South (e.g., Hodgkinson-Williams & Arinto, 2017; James & Bossu, 2014; Khan et al., 2018; King et al., 2018; Nkuyubwatsi, 2014). The most prevailing challenges include: (a) limited access to the Internet or bandwidth; (b) significant technological barriers; (c) the lack of prerequisites in terms of knowledge, skills, and language and digital literacy; and, perhaps most critically, (d) mis-alignments between MOOCs and OER developed in the Global North and the cultures, languages, pedagogies, and local contexts of the Global South. It appears to be clear that, despite all the promising potential, MOOCs and OER originating in the Global North have rather limited capacities to provide localized or contextualized learning opportunities for the diverse populations in the Global South (e.g., Bidaisee, 2017; Castillo, Lee, Zahra, & Wagner, 2015; Ichou, 2018).

Success in the Global South

In the few years since the Incheon Declaration (UNESCO, 2015), MOOCs and OER have been scaled up across the Global South through a wide range of local, national, and international initiatives as well as individual and organizational efforts. Chapters in this book showcase some of the most influential and impactful projects, frameworks, policies, research, programs, and evaluations, which are enjoying notable success in overcoming the varied challenges in the Global South. By featuring them in one book, there is a greater opportunity for insightful and creative applications and replications. The chances that they can be further refined and extended is also elevated.

The Global South has a long history in distance education (DE). For decades, DE has been tactically leveraged and engineered at the national level as a powerful strategy to address the evergrowing demands for education (e.g., Bonk, Lee, Reeves, & Reynolds, 2015; Carr-Chellman, 2005; Carr-Chellman & Zhang, 2000; Garrido et al., 2016; Hodgkinson-Williams & Arinto, 2017; King et al., 2018; Zhang & Hung, 2006, 2009; Zhang, Liang, & Sang, 2013). The MOOC phenomenon has spurred new initiatives in those countries with a long record in DE. For example, during the past few years, China has proactively responded to the MOOC explosion started in the Western world. In 2015, the Chinese Ministry of Education (MoE) published an aggressive national plan "to strengthen the construction, use and management of MOOCs" (MoE, 2015). Less than three years later in January 2018, the MoE in China introduced 490 National Elite Online Courses, which were selected and recognized as the best open online courses in China. With the goal to offer approximately 3,000 national elite online courses free to the general public by 2030, the Chinese government provides generous funding and resources for the creation and delivery of online open courses.

Likewise, as Yong Kim, Ock Tae Kim, and Jin Gon Shon examine in detail in Chapter 2, the South Korean Ministry of Education has also been pressing the development and promotion of MOOCs in Korea, known as K-MOOC. Further, Kim and colleagues have proposed innovative and promising applications of K-MOOC to connect the two countries, North Korea and South Korea, through national initiative and developments. Similarly, nationwide, government-driven MOOC movements are widespread in the Global South. For instance, our authors critically review Thai MOOCs (Chapter 13), the MOOC portal in Turkey (Chapter 12), MOOC-like or MOOC-inspired OER in Indonesia (Chapter 6), and MOOCs and OER integrated as open education practices in Africa (Chapter 24), to name a few. These national initiatives and government-supported structures and programs have generated a rapid, massive growth of MOOCs and OER in the Global South.

Consequently, the Western-born MOOC hype has taken various new forms and perspectives (e.g., Weiland, 2015; Zheng, Chen, & Burgos, 2018; Zawacki-Richter, Bozkurt, Alturki, & Ald-raiweesh, 2018) in the Global South to serve the different needs in countries and regions, where the demands for education are ever growing, while resources and access are quite limited. The Global South has generated an enormous amount of newly created MOOCs for the specific populations and needs there. For instance, they must be offered in their languages (e.g., Arabic, Chinese, Korean, Portuguese, Spanish, etc.), and with culturally sensitive customizations. More remarkably, with strong government support and national initiatives, the South has created many culturally contextualized, country-specific, or language-specific MOOC platforms and OER portals. Proactively through such MOOC platforms, the Global South has been contributing to the global community with new knowledge, ample resources, and innovative opportunities for continuing lifelong learning, and much more. Table 1.3 summarizes some of the most popular country-specific MOOC platforms developed by countries or organizations in the Global South.

Country-Specific MOOC Platforms in the South (in alphabetical order)	Country of Origin
Edraak	Jordan
K-MOOC	South Korea
IndonesiaX	Indonesia
MenaVersity	Lebanon
MexicoX	Mexico
National Programme on Technology Enhanced Learning (NPTEL)	India
Rwaq	Saudi Arabia
SkillAcademy	Egypt
Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM)	India
ThaiMOOC	Thailand
XuetangX	China

TABLE 1.3 A Partial List of Country-Specific MOOCs in the South

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These various MOOC platforms serve a great number of people in the Global South. In fact, many of them have millions of registered users. Several of these MOOC platforms have been integrated into formal educational systems, again with governmental support and guiding policies at the national level. For example, in India, students may earn up to 20% of their degree program from SWAYAM, the Indian MOOC platform. SWAYAM also enables schools to reach remote, rural areas in India. With SWAYAM, India is able to increase its Gross Enrollment Ratio (GER) in higher education from 24.5% in 2015–2016 to 25.8% in 2017–2018; the Indian government further aims to reach 30% of GER by 2021 (Press Information Bureau, 2018a). Additionally, in December 2018, the Indian government signed a memorandum with Afghanistan, another country in the Global South, for Afghanistan educational institutions and students to offer MOOCs and take courses on SWAYAM (Press Information Bureau, 2018b).

In addition to leveraging MOOCs to supplement and transform traditional higher education or degree programs, MOOCs and OER are also widely applied in the Global South to provide non-traditional opportunities for informal, lifelong learning, professional development initiatives, and micro-credentials (e.g., Commonwealth of Learning, n.d.; Dodson, Kitburi, & Berge, 2015; Garrido et al., 2016; IBL News, 2019; Shah, 2019; Wagner, 2018; XuetangX, n.d.; Zhang, 2015; Zhang & Gao, 2014). It is noteworthy that XuetangX, a MOOC platform developed by China, for instance, has reached 16.3 million users in January 2019 (IBL News, 2019) with over 200 corporate partners and MOOC offerings in multiple languages (XuetangX, n.d.). It is now the world's thirdlargest MOOC platform in terms of users, only after Coursera (37 million) and edX (18 million) (IBL News, 2019). Many chapters in this book discuss in detail the design, development, implementation, research, and evaluation mechanisms of these Global South–oriented MOOCs.

MOOCs and OER in the South also boast creative ways of integration and application by employing diverse learning modalities (e.g., IBL News, 2019; XuetangX, n.d.). For example, Rain Classroom, a mobile app featured on XuetangX, empowers over 7 million users with interactive learning activities and instant assessments for blended learning or in flipped classrooms via smartphones. Paired with XuetangX Cloud, a teaching platform for faculty to use on campus, instructors can easily integrate Rain Classroom into their daily teaching practices. Another novel product by XuetangX is AI Xuetang. Backed by the Online Research Center of China's Ministry of Education, AI Xuetang specializes in K–12 education where it provides personalized learning and enables dynamic assessments for K–12 students. XuetangX even offers a virtual teacher using AI technology, named Xiaomu, for learners. Xiaomu monitors learners' progress, while guiding them with prompts as well as questions and answers. It also engages learners with constant encouragement and suggestions at different stages of the learning process. Such innovative technologies and new ways of teaching are gradually transforming education in the Global South.

As evident in the stories of success from the 47 countries highlighted in this book, MOOCs and OER have provided a wide variety of participants in the Global South with much needed opportunities for education, especially for adult learners. In particular, they can offer unique opportunities for professional development, and skill-focused or job-critical training and learning. For example, chapters in Section 3 of this book share details of MOOCs for professional development in Turkey, Thailand, South Africa, and various countries of the Commonwealth.

Open Education: Open Educational Resources to Open Education Practices

Intense research studies as well as the everyday press have articulated numerous challenges in the Global South as related to OER, and more broadly to open education (e.g., Arinto, Hodgkinson-Williams, King, Cartmill, & Willmers, 2017; Commonwealth of Learning, n.d.; de Oliveira Neto, Pete, Daryono, & Cartmill, 2017). Nevertheless, open practices in the Global South continue to grow and remain emergent and responsive, as consistently confirmed in several studies from researchers

in South Africa (e.g., Czerniewicz, Deacon, Glover, & Walji, 2017; Czerniewicz & Goodier, 2014; Hodgkinson-Williams & Arinto, 2017). In fact, in a comparative international study, the reported uses of OER in the Global South were remarkedly higher than those reported in more developed countries (de Oliveira et al., 2017). What may have contributed to the differences in OER uses and open education practices between the North and the South? The collection of chapters in this book provide rich, contextualized, and culturally diverse insights that will help readers consider different perspectives on these complex issues.

Different frameworks are proposed to help understand the difficulties and issues in open education. For example, Hodgkinson-Williams (2014) identifies technical, cultural, legal, pedagogical, and financial dimensions of openness. Next, she explains the ease or difficulty of adopting open education from the five dimensions or perspectives. A couple of years prior, Beetham and colleagues (Beetham, Falconer, McGill, & Littlejohn, 2012) proposed six main features of open education practices and encouraged educators to: (a) allow non-registered students to access learning materials, (b) re-use course materials, (c) engage practitioners in the creation of course documents, (d) share knowledge with the public, (e) encourage others in open education practices, and (f) use open networks for teaching. While such frameworks will continue to be fine-tuned in the coming decade, they already serve a vital role in understanding issues related to the design, adoption, and use of open education.

The many Global South scholars found in this book share concrete examples, projects, strategies, and institutional and national policies associated with OER and OEP in countries and regions like Africa (Chapter 24), APEC (Chapter 17), Brazil (Chapter 19), Egypt (Chapter 4), Indonesia (Chapter 6), Kenya (Chapter 26), Malaysia (Chapter 20), and the Philippines (Chapter 21). At the same time, some of these lenses extend more globally via critical perspectives (Chapter 5) whereas others offer international perspectives with organizations like the World Bank (Chapter 23), the Commonwealth of Learning (Chapter 14), the Inter-American Development Bank (Chapter 18), and much more.

In Conclusion

This book is a compilation of the experience and wisdom of many different scholars and education leaders. None of them warrant that they have all the answers, or all the questions, for that matter. In fact, they would probably all agree that there are many serious issues and concerns that must be confronted as MOOCs and open education evolve around the world. For example, if someone in the Global South completes a MOOC offered by a prestigious university in the North such as Harvard, MIT, or Stanford, and even has earned a certificate of completion, what is its ultimate value or worth?

While the knowledge and skills gained will certainly have intrinsic value, it is important to ponder whether employers will place any faith in certificates, nanodegrees, digital badges, microcredentials, or other forms of certification emanating from MOOCs and OER. Although in the North this acceptance may seem to be up to individual employers, strong national policies in many Global South countries have been promoting awareness and acceptance of such varied forms of open education, including the implementation of MOOCs and OER. As MOOCs and open forms of education evolve, will the elite institutions continue to stand behind and support these products; and if so, how? If government support or incentives fade, how would the practice of open education be sustained? Similar issues arise when considering home-grown forms of open education.

The editors of this volume have vastly different experiences in the Global South. The first author has extended roots in the Global South, together with substantial experiences in educational research and development at the national, international, and organizational levels in Asia and Eurasia. The third and fourth authors have been Fulbright scholars in Peru and Columbia, and have been involved in research in several other Global South countries; in fact, the fourth author conducted OER research when in Columbia a decade ago. And the second author has made dozens of visits to parts of the Global South in higher education settings related to online and blended learning, including MOOCs and open education. We have learned much from each journey there; in fact, we met many contributors to this particular book during our professional experiences in the Global South. While each of us had a unique set of personal experiences and stories on which we drew upon when drafting and editing this book, we structured this book in the hopes of sharing a widely diverse range of views and perspectives that may stimulate important new conversations flowing South and North as well as East and West.

If successful, some of the ideas and perspectives presented in the ensuing chapters will spark new collaborations in research and development at the national, international, regional, local, organizational, or individual levels. They may also attract new and continuing investments from government agencies, educational institutions, not-for-profit organizations, and corporate interests. These are among the key goals that have driven our efforts to curate this book. We trust that you share some of them and welcome you to add many of your own goals, targets, and purposes.

It is now time to journey ahead to the next 27 chapters. We hope that you glance back to this introductory chapter from time to time, and compare and contrast the insights that may gently, or more forcefully, emerge in your own interpretations and conclusions with what we, the team of editors, have attempted to highlight for you. Nevertheless, each of you should have personally meaningful and professionally relevant themes and takeaways that are solely your own. As you generate such personal insights and conclusions, we welcome you to share them with us or forward any reviews of this book that you may produce or oversee. Let's work together to realize the sustainable development goal for "inclusive and equitable quality education" (United Nations, 2015) across the world, North, South, East, and West!



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References

- Anderson, T. (2013). Promise and/or peril: MOOCs and open and distance education. *Commonwealth of Learning*, *3*, 1–9.
- Arinto, P. B., Hodgkinson-Williams, C., King, T., Cartmill, T., & Willmers, M. (2017). Research on open educational resources for development in the global South: Project landscape. Retrieved from https://open.uct.ac.za/ bitstream/handle/11427/26435/ROER4D-ch1-final.pdf?sequence=7
- Beetham, H., Falconer, I., McGill, L., & Littlejohn, A. (2012). *Open practices: Briefing paper*. Retrieved from https://oersynth.pbworks.com/w/page/51668352/OpenPractices
- Bidaisee, S. (2017, May 8). Creating MOOCs for students in developing countries. *Educational Review*. Retrieved from https://er.educause.edu/articles/2017/5/creating-moocs-for-students-in-developing-countries
- Bonk, C. J., Lee, M. M., Reeves, T. C., & Reynolds, T. H. (2015). MOOCs and open education around the world. New York: Routledge.

Carr-Chellman, A.A. (2005). Global perspectives on e-learning: Rhetoric and reality. Thousand Oaks, CA: Sage.

- Carr-Chellman, A. A., & Zhang, K. (2000). China's future with distance education: Rhetoric and realities. Information, Communication & Society, 3(3), 303–312.
- Castillo, N. M., Lee, J., Zahra, F. T., & Wagner, D. A. (2015). MOOCs for development: Trends, challenges, and opportunities. *Journal Articles (Literacy.org)*, 6. Retrieved from https://repository.upenn.edu/literacyorg_articles/6

- Commonwealth of Learning. (n.d.). Open educational resources: Global report 2017. Retrieved from http://oasis. col.org/bitstream/handle/11599/2788/2017_COL_OER-Global-Report.pdf?sequence=1&isAllowed=y
- Czerniewicz, L., Deacon, A., Glover, M., & Walji, S. (2017). MOOC—making and open educational practices. Journal of Computing in Higher Education, 29(1), 81–97.
- Czerniewicz, L., & Goodier, S. (2014). Open access in South Africa: A case study and reflections. South African Journal of Science, 110(9–10), 1–9.
- de Oliveira Neto, J. D., Pete, J., Daryono, & Cartmill, T. (2017). OER use in the global South: A baseline survey of higher education instructors. In C. Hodgkinson-Williams & P. B. Arinto (Eds.), Adoption and impact of OER in the global South. Chapter 3 advance publication. Retrieved from http://dx.doi.org/10.5281/ zenodo.154559
- Dodson, M. N., Kitburi, K., & Berge, Z. L. (2015). Possibilities for MOOCs in corporate training and development. *Performance Improvement*, 54(10), 14–21. doi:10.1002/pfi.21532
- Garrido, M., Koepke, L., Anderson, S., Felipe Mena, A., Macapagal, M., & Dalvit, L. (2016). The advancing MOOCs for development initiative: An examination of MOOC usage for professional workforce development outcomes in Colombia, the Philippines, & South Africa. Seattle: Technology & Social Change Group, University of Washington Information School. Retrieved from https://digital.lib.washington.edu/researchworks/ bitstream/handle/1773/35647/Advancing_MOOCs_for_Development_Final_Report_2016_Final. pdf?sequence=4&isAllowed=y
- Gunawardena, C. (2014, March). MOOCs: Students in the global south are wary of a "sage on the stage". *The Guard-ian*. Retrieved from www.theguardian.com/education/2014/mar/19/cost-barrier-students-global-south
- Hodgkinson-Williams, C. (2014). Degrees of ease: Adoption of OER, open textbooks and MOOCs in the Global South. In 2nd regional symposium on open educational resources: beyond advocacy, research and policy. Penang, Malaysia. Retrieved from https://open.uct.ac.za/handle/11427/1188
- Hodgkinson-Williams, C. A., & Arinto, P. B. (2017). Adoption and impact of OER in the global South. Cape Town and Ottawa: African Minds, International Development Research Centre & Research on Open Educational Resources. doi:10.5281/zenodo.1005330
- Hollington, A., Salverda, T., Schwarz, T., & Tappe, O. (2015). Concepts of the global South (vol. 2015). Global South Studies Center Cologne. Retrieved from https://kups.ub.uni-koeln.de/6399/1/voices012015_ concepts_of_the_global_south.pdf
- IBL News. (2019, January 3). XuetangX, China's open edX platform, reaches 16M learners. *IBL News*. Retrieved from https://iblnews.org/2019/01/03/xuetangx-open-edx-chinas-platform-reaches-16m-learners-2/
- Ichou, R. P. (2018). Can MOOCs reduce global inequality in education? *Australasian Marketing Journal*, 26(2), 116–120.
- James, R., & Bossu, C. (2014). Conversations from south of the equator: Challenges and Opportunities in OER across broader Oceania. International Journal of Educational Technology in Higher Education, 11(3), 78–90.
- Khan, I. U., Hameed, Z., Yu, Y., Islam, T., Sheikh, Z., & Khan, S. (2018). Predicting the acceptance of MOOCs in a developing country: Application of task-technology fit model, social motivation, and self-determination theory. *Telematics and Informatics*, 35, 964–978. doi:10.1016/j.tele.2017.09.009
- King, M., Pegrum, M., & Forsey, M. (2018). MOOCs and OER in the global South: Problems and potential. The International Review of Research in Open and Distributed Learning, 19(5). https://doi.org/10.19173/ irrodl.v19i5.3742
- Koller, D. (2012). What we're learning from online education. Retrieved from www.ted.com/talks/daphne_koller_ what_we_re_learning_from_online_education.html
- Ministry of Education of the People's Republic of China. (2015, February 12). *The key work of the ministry of education in 2015*. Retrieved from www.moe.gov.cn/srcsite/A02/s7049/201502/t20150212_189347.html (in Chinese)
- Nkuyubwatsi, B. (2014, March). Cultural translation in massive open online courses (MOOCs). *eLearning Papers*, 37, 1–10. Retrieved from https://lra.le.ac.uk/bitstream/2381/28554/4/In_depth_37_3.pdf
- Press Information Bureau (PIB), Ministry of Human Resource Development, India. (2018a, August 2). Gross enrolment ratio target in higher education has been achieved. Retrieved from www.pib.nic.in/Pressreleaseshare. aspx?PRID=1541358
- Press Information Bureau (PIB), Ministry of Human Resource Development, India. (2018b, December 17). Cabinet approves memorandum of understanding between India and Afghanistan in the field of human resource development. Retrieved from http://pib.nic.in/newsite/PrintRelease.aspx?relid=186523
- Reich, J., & Ruipérez-Valiente, J. A. (2019). The MOOC pivot. *Science*, *363*, 130–131. doi:10.1126/science. aav7958

- Shah, D. (2019). Year of MOOC-based degrees: A review of MOOC stats and trends in 2018. Retrieved from www. class-central.com/report/moocs-stats-and-trends-2018/
- UNESCO. (2015). Education 2030: Incheon declaration and framework for action for the implementation of sustainable development goal 4: Ensure inclusive and equitable quality education and promote lifelong learning. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000245656
- United Nation. (2015). About the sustainable development goals. Retrieved from www.un.org/sustain abledevelopment/sustainable-development-goals/
- Veletsianos, G., & Shepherdson, P. (2016). A systematic analysis and synthesis of the empirical MOOC literature published in 2013–2015. The International Review of Research in Open and Distributed Learning, 17(2), 198–221. doi:10.19173/irrodl.v17i2.2448
- Wagner, D. A. (Ed.). (2018). Learning as development: Rethinking international education in a changing world. New York: Routledge.
- Weiland, S. (2015). Open educational resources: American ideals, global questions. *Global Education Review*, 2(3), 4–22. Retrieved from https://files.eric.ed.gov/fulltext/EJ1074097.pdf
- XuetangX. (n.d.). About us. Retrieved from www.xuetangx.com/global
- Zawacki-Richter, O., Bozkurt, A., Alturki, U., & Aldraiweesh, A. (2018). What research says about MOOCs an explorative content analysis. *The International Review of Research in Open and Distributed Learning*, 19(1), 242–259. Retrieved from www.irrodl.org/index.php/irrodl/article/view/3356/4490
- Zhang, K. (2015). Mining data from Weibo to WeChat: A comparative case study of MOOC communities on social media in China. *International Journal on E-Learning*, 14(3), 305–329.
- Zhang, K., & Gao, F. (2014). Social media for informal science learning in China: A case study. Knowledge Management & E-Learning: An International Journal, 6(3), 262–280.
- Zhang, K., & Hung, J. L. (2006). E-learning in Taiwan's higher education: Policies, practices, and problems. International Journal of Information and Communication Technology Education, 2(1), 37–52.
- Zhang, K., & Hung, J. L. (2009). E-learning in supplemental educational systems in Taiwan: Present status and future challenges. *International Journal on e-Learning*, 8(4), 479–494.
- Zhang, K., Liang, L., & Sang, X. (2013). Educational technology in China: Past & present. In X. Li (Ed.), Education in China: Cultural influences, global perspectives and social challenges (pp. 271–288). Hauppauge, NY: Nova Science Publishers.
- Zheng, Q., Chen, L., & Burgos, D. (2018). Emergence and development of MOOCs. In Q. Zheng, L. Chen, & D. Burgos (Eds.), *The development of MOOCs in China* (pp. 11–24). Singapore: Springer.
- Zhu, M., Sari, A., & Lee, M. M. (2018). A systematic review of research methods and topics of the empirical MOOC literature (2014–2016). *The Internet and Higher Education*, 37, 31–39. https://doi.org/10.1016/j. iheduc.2018.01.002

MOCS AND OPEN EDUCATION IN THE GLOBAL SOUTH Challenges, Successes, and Opportunities



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Edited by Ke Zhang, Curtis J. Bonk, Thomas C. Reeves, and Thomas H. Reynolds



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