

Preface

The tremendous growth of ICT in recent years and the increasing availability of advanced high bandwidth network infrastructures have opened up new accessibility opportunities for education, and supported quality teaching and learning at all levels. As opportunities and technologies evolve, the expectations of opening up learning to suit individual needs, ensuring equitable quality education, and lifelong learning for all have become more and more pressing than ever before. Being mindful of these major advancements in technologies and big shifts in education, nations are looking at adopting new educational paradigms to advance educational opportunities for their citizens. To this end, several national policies, strategies, and action plans for the effective use of ICT in education are being formulated worldwide, with the focus on openness, twenty-first century teaching and learning competencies, and smart learning. At the core of these policies, mostly aligned with post-2015 education agenda, is the emphasis on open and free access anytime and anywhere to quality educational resources, whatever its shape, such as Open Educational Resources (OER) or Massive Open Online Courses (MOOCs).

This book focuses on reviewing existing policies, initiatives and international experiences, with the aim to promote the use of ICT in education primarily through the development and adoption of OER from the international practices, including implementation and licensing issues. With the particular focus on the new trends of MOOCs, the book explores the potential of this emerging paradigm, and its rise and impact on openness in education.

This book starts with Stephen Downes' documentation of major shifts that education has witnessed, thanks to technologies. He describes the new educational trends in social learning, personal learning, and MOOCs, drawing from the development of open and distributed learning, with free share and access for all, to the licensed quality educational resources.

Junfeng Yang and Kinshuk discuss the policies for Open Education (OE) that are mostly formulated as part of general educational policies, overall policies for OE, specific OER policies, and policies for open standards. They review various

existing policies from different countries and regions, and provide recommendations for developing national OE policies.

Stylianos Sergis, Demetrios G. Sampson, and Lina Pelliccione introduce the educational design of MOOCs with the emphasis on cultural and motivational issues, and explore existing educational design frameworks. They reveal the ADDIE-based educational design considerations framework (EDCF) for MOOCs, incorporating both “massiveness” and “openness” requirements.

Mohamed Jemni and Koutheair Khribi describe the efforts and the ongoing projects of the Arab League Educational, Cultural and Scientific Organization (ALECSO) towards promoting the effective use of ICT in education, especially through fostering the development and adoption of open learning, mobile technologies, and cloud computing, creating the so-called “ALECSO Smart Learning Framework.” They describe first the status of ICT use in education in the Arab region through conducted studies and surveys, and then review the completed and ongoing activities with respect to the aforementioned ALECSO Framework’s dimensions.

Stephen J.H. Yang, Jeff Cheng-Hsu Huang, and Anna Yu-Qing Huang review the experiences of MOOCs in Taiwan, from perspectives of both the Ministry of Education and the volunteers who come from various universities, K12 schools, and private sectors. They explain the motivation of adopting MOOCs and the purpose and core mission of MOOCs in Taiwan.

Sie Wai Chew, I-Ling Cheng, and Nian-Shing Chen explore available strategies and methods for the development and design of MOOCs, and interactive video lectures, ranging from the construction process of video lectures embracing recording, editing, segmenting, and enhancing of video lectures’ phases, from both technical and instructional points of view.

J. Michael Spector introduces MOOC concept, its origin, types, goals, and impact. Then he provides a critical look at MOOCs, pointing out what do they effectively lack, especially from an instructional point of view, and what would be the MOOCs’ future.

Ronghuai Huang, Yongbin Hu, and Xiaolin Liu provide an openness maturity framework for OER projects. This framework is intended to analyze and assess the promotion and sharing of OER. They first review the development process and typical projects of OER, and then analyze the driving mode of OERs development and promotion approaches, taking into account the OER’s characteristics.

Sara Osuna Acedo, Divina Frau-Meigs, Lucía Camarero, Cano, Adeline Bossu, Raquel Pedrosa, and Darco Jansen introduce a pioneering European project entitled “ECO project” providing a new MOOC model named sMOOC (social MOOCs), based on constructivist and connectivist pedagogical theories. They describe the sMOOC experience held at different linguistic and cultural zones.

Ebba Ossiannilsson, Zehra Altınay, and Fahriye Altınay provide a possible roadmap for institutions towards establishing policies on open online education quality. They describe how institutions can enhance and ensure quality through OER and MOOC practices.

Martin Ebner, Anja Lorenz, Elke Lackner, Michael Kopp, Swapna Kumar, Sandra Schön, and Andreas Wittke discuss the importance of combining the use of both OER and MOOCs, in order to foster new and innovative didactical approaches, as well as future education, especially in German-speaking Europe.

Sonia Santoveña Casal and Alejandro Silva report a study of the application of the virtual learning model in a MOOC, “Communication and mobile learning,” within the project “Elearning, Communication and Open-data: Massive Mobile, Ubiquitous and Open Learning (ECO)” of European Commission. The learning model effectiveness is analyzed by contrasting students’ opinions before and after the course, taking into consideration some key aspects related to the acquired knowledge and performance, interest and innovation level, and overall satisfaction with the course.

Yves Epelboin points out the importance to set a suitable business model to ensure a successful preparation and launch of MOOCs. He explores some emerging business models for both MOOCs’ providers and creators. He reveals the necessity for a corporation financing model between MOOCs’ creators and providers, as the future of MOOCs and online learning is closely linked to the consolidation of these business models.

Darco Jansen, Jon Rosewell, and Karen Kear review current and emerging practices for the quality assurance and quality enhancement of MOOCs. They explain the necessity to consider the quality issue for MOOCs, and discuss the importance of the use of international quality frameworks for MOOCs, embedded in institutional quality processes.

Nelson Piedra, Janneth Chicaiza, Jorge Lopez-Vargas, Javiera Atenas, and Edmundo Tovar introduce the evolution of Open Educational Movement and the potential of the use of linked data approach to improve the discoverability, reusability and integration of open and free-access materials. They focus on the benefits of reusability and sharing of open licensed educational resources.

Francis Brouns, António Teixeira, Lina Morgado, Santiago, Fano, Aquilina Fueyo, and Darco Jansen propose a collaborative approach for MOOC design. This approach is based on a model already tested in practice and has been further elaborated and evaluated in the ECO project. The pedagogical framework is based on the notion that MOOCs should be designed to accommodate the specific context of open online education with its heterogeneity of learner needs.

Finally, Nenad Stefanovic and Danijela Milosevic introduce an innovative open educational model and supporting software system that is capable of answering the major challenges of modern education. The proposed OER model and software platform enables the creation of agile and adaptable educational ecosystem that can transform the learning experience and connect individuals, educational institutions, and companies.

We hope that this collection will not only provide an overview of the current state of the art and also serve as a milestone for researchers as they progress further, but will also provide a roadmap for the vision for the future. The quality of this collection would not have been possible without the support of various individuals. Editors would first like to thank Richard Tortorella, who provided excellent support

for smooth progression of the whole editing process. Various reviewers dedicated their time to ensure the quality as well. Editors would like to thank Ashok Patel, Demetrios Sampson, Fathi Essalmi, Fathi Essalmi, Guang Chen, Hadi Shaheen, Imran Zualkernan, Jan M. Pawlowski, Jeremy Hunsinger, Jon Dron, Junfeng Yang, Koutheair Khribi, Lilia Cheniti, Michael Verhaart, Mike Spector, Mohamed Ally, Mounia Abik, Nian-Shing Chen, Ramesh Sharma, Ramzi Farhat, Ray Yueh-Min Huang, Riadh Besbes, Tore Hoel, and Wong Su Luan for their kind help.

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<http://www.springer.com/978-3-662-52923-2>

Open Education: from OERs to MOOCs

Jemni, M.; Kinshuk; Khribi, M.K. (Eds.)

2017, X, 359 p. 62 illus., Hardcover

ISBN: 978-3-662-52923-2