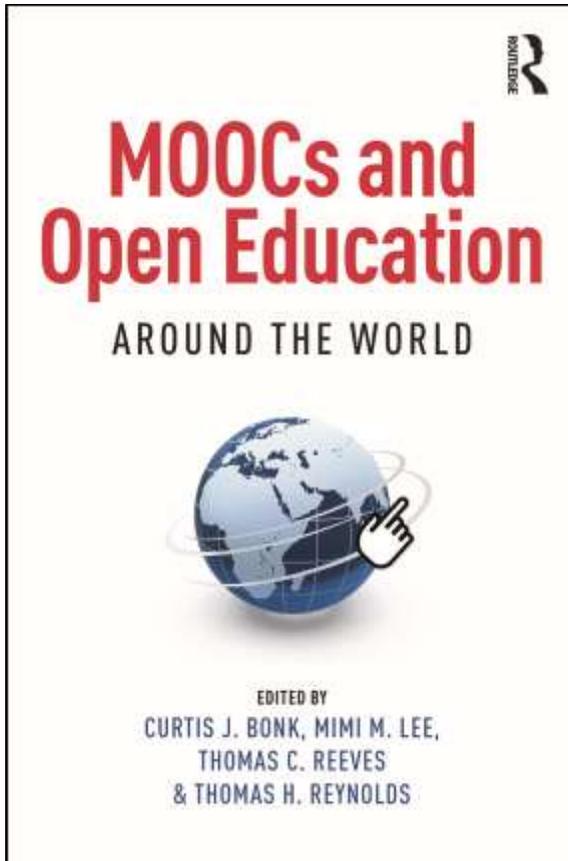# *MOOCs and Open Education Around the World*

Edited by Curtis J. Bonk, Mimi Miyoung Lee, Thomas C. Reeves, & Thomas H. Reynolds

"To all the inquisitive, informal, nontraditional, and educationally disadvantaged learners around the world who can benefit from innovative learning alternatives and options. May this book help open a few new doors and windows for you."

CONTENTS

Opening Matter: Forewords, Preface, and Acknowledgements

Foreword #1.
The Role of MOOCs in the Future of Education
George Siemens, University of Texas at Arlington, USA

Abstract: In his foreword, George Siemens reminds us that MOOCs are a recent phenomenon that have yet to fulfill their initial expectations and hype and likely never will. He counters that this is inconsequential. While the changes that were promised by many MOOC pundits have yet to come to fruition, it is more important to realize that MOOCs reflected the vastly changing societal needs for knowledge and lifelong learning. As Siemens points out, it is the complexification and digitization of higher education along with increases in societal needs for education and training that are the primary areas where attention should be focused today, not necessarily MOOCs. Unfortunately, universities, as they are presently structured, are mismatched with pace of knowledge change today as well as the way that knowledge is structured. In an increasingly online, networked, and connected learning world, learners, including scientists and healthcare workers dealing with critical issues, require more immediate and pervasive access to knowledge. As such, in this digital learning age, universities must begin to re-architect themselves to better serve learner needs.

George Siemens researches technology, networks, analytics, and openness in education. Dr. Siemens is the Executive Director of the Learning Innovation and Networked Knowledge Research Lab at University of Texas, Arlington. He has delivered keynote addresses in more than 35 countries on the influence of technology and media in education, organizations, and society. His work has been profiled in provincial, national, and international newspapers (including NY Times), radio, and television. His research has received numerous awards, including honorary doctorates from Universidad de San Martín de Porres and Fraser Valley University for his pioneering work in learning, technology, and networks. Dr. Siemens is a founding member and first President of the Society for Learning Analytics Research (http://www.solaresearch.org/). He has advised government agencies in

Australia, European Union, Canada, and the United States as well as numerous international universities, on digital learning and utilizing learning analytics for assessing and evaluating productivity gains in the education sector and improving learner results. In 2008, he pioneered massive open online courses (sometimes referred to as MOOCs). He blogs at http://www.elearnspace.org/blog/ and on Twitter: gsiemens.

Foreword #2.
Open(ing up) Education for All…Boosted by MOOCs?
Fred Mulder, UNESCO/ICDE Chair in Open Educational Resources at the Open University of the Netherlands

Abstract: MOOCs have their roots in two major developments. The first, towards open education, has become manifest through the open universities around the world with their 'classical' notions of openness, which was later flanked by digital openness with the concept of "Open Educational Resources" (OER). The second development, towards online education, came up with the use of new media and technologies; however, it was not until the Internet that we saw real change in educational approaches. Parallel to the MOOCs expansion, we are witnessing a more fundamental movement which is aiming at opening up education. It is surprising, therefore, that the term "Open Education" is used quite frequently, but generally with no sound description of its meaning. The 5COE model (i.e., "Five Components for Open Education," one of them being OER) is an attempt to fill this gap. 5COE provides a reference model on which any activity, including MOOCs of different kinds, can be mapped along its five dimensions of openness. Whether MOOCs will boost "Opening up Education for All" accommodating the diversity needed, remains to be seen.

Fred Mulder holds a UNESCO/ICDE Chair in OER at the Open University of The Netherlands (OUNL). Previously, he was OUNL Rector for more than a decade. He is actively involved in OER initiatives and policies at the national level, by UNESCO, the OECD, and the EU. He is chairing the first pan-European MOOCs initiative called OpenupEd which was launched

in April 2013 by EADTU (i.e., the European Association of Distance Teaching Universities). In addition, he is leading the Global OER Graduate Network. Mulder has received a Royal decoration (2007) for his work in Lifelong Learning, the ICDE Individual Prize of Excellence (2012) for his efforts in OER, and the Leadership Award for OpenCourseWare Excellence (2014).

Preface:
Actions Leading to *"MOOCs and Open Education Around the World*"

Curtis J. Bonk, Indiana University, USA
Mimi Miyoung Lee, University of Houston, USA
Thomas C. Reeves, The University of Georgia, USA
Thomas H. Reynolds, National University, USA

Abstract: The Preface for the *MOOCs and Open Education Around the World* book provides historical content to set the stage for two forewords as well as the 29 chapters found in the eight parts of this edited volume. It includes an overview of the goals, contents, challenges, and uses of massive open online courses (MOOCs) and open education that have emerged as a disruptive technology across all sectors of education; in particular, higher education. In addition, the rationale for compiling this book as well as its intended audiences and stakeholders are explained. Also described are the origins of this volume which emerged during a one-day preconference symposium held at the International E-Learn 2013 Conference in Las Vegas, Nevada. Finally, this preface concludes with acknowledgements to important groups such as the Association for the Advancement of Computers in Education (AACE) that sponsored the preconference symposium, the book's publisher, Routledge, and the more than 60 author contributors to this comprehensive volume.

Curtis J. Bonk is Professor of Instructional Systems Technology at Indiana University and President of CourseShare. Drawing on his background as a corporate controller, CPA, educational psychologist, and instructional technologist, Bonk offers unique insights into the intersection of business, education, psychology, and technology. A well-known

authority on emerging technologies for learning, Bonk reflects on his speaking experiences around the world in his popular blog, *TravelinEdMan*. In 2014, he also was named the recipient of the Mildred B. and Charles A. Wedemeyer Award for Outstanding Practitioner in Distance Education. He has authored several widely used technology books, including *The World Is Open*, *Empowering Online Learning*, *The Handbook of Blended Learning*, *Electronic Collaborators*, and, most recently, *Adding Some TEC-VARIETY* which is free as an eBook (http://tec-variety.com/). His homepage contains much free and open material (http://php.indiana.edu/~cjbonk/) and he can be contacted at cjbonk@indiana.edu.

Mimi Miyoung Lee is Associate Professor in the Department of Curriculum and Instruction at the University of Houston. She received her Ph.D. in Instructional Systems Technology from Indiana University at Bloomington in 2004. Her research interests include global and multicultural education, theories of identity formation, sociological examination of online communities, issues of representation, and critical ethnography. Mimi has published research on STEM related online teacher education, cross-cultural training research, interactive videoconferencing, opencourseware, and qualitative research. She may be contacted at mlee7@uh.edu.

Thomas C. Reeves is Professor Emeritus of Learning, Design, and Technology at The University of Georgia. Professor Reeves has designed and evaluated numerous interactive learning programs and projects. In recognition of these efforts, in 2003 he received the AACE Fellowship Award, in 2010 he was made an ASCILITE Fellow, and in 2013 he received the AECT David H. Jonassen Excellence in Research Award. His books include *Interactive Learning Systems Evaluation* (with John

Hedberg), a *Guide to Authentic E-Learning* (with Jan Herrington and Ron Oliver), and *Conducting Educational Design Research* (with Susan McKenney). His research interests include evaluation, authentic tasks for learning, educational design research, and educational technology in developing countries. He can be reached at <u>treeves@uga.edu</u> and his homepage can be found at <u>http://www.evaluateitnow.com/</u>.

Thomas H. Reynolds is currently a professor of Teacher Education at National University in La Jolla, California where he researches design of online learning environments, standards-based online assessment, and innovations in e-learning. Before coming to National University, he served on faculty at Texas A&M University after earning earned his Ph.D. in Curriculum and Instruction at the University of Wisconsin-Madison. Professor Reynolds has twice served as a Fulbright Scholar—2010 in Colombia where he researched open education resources and 1998 in Peru where he lectured on Web-based learning and technology-enhanced instruction. His present activities and responsibilities include projects in Colombia, coordination of an e-teaching and learning master's degree specialization, and leadership in online quality assurance and online course review and development for National University. He can be contacted at <u>treynold@nu.edu</u>.

PART ONE. MOOCs and Open Education: Historical and Critical Reflections

Chapter 1
The MOOC Misstep and the Open Education Infrastructure
David Wiley, Co-founder and Chief Academic Officer, Lumen Learning, USA

Abstract: In the first chapter of this book, David Wiley, Co-founder and Chief Academic Officer, Lumen Learning, explores the damage done to the idea of "open" by MOOCs given that some MOOC vendors do not allow the reuse of content in their MOOCs. Wiley also discusses the harm done to the idea of "ownership" by modern content companies. He then

advocates for a return to a strengthened idea of "open" that ameliorates both problems. Finally, he describes an open education infrastructure on which the future of educational innovation depends. As such, this chapter is a vital and compelling introduction to critical discussions and reflections related to MOOCs and open education around the world.

David Wiley is Chief Academic Officer and Co-founder of Lumen Learning, an organization dedicated to increasing student success and improving the affordability of education through the adoption of open educational resources by middle schools, high schools, community and state colleges, and universities. He is also currently a Shuttleworth Fellow, Education Fellow at Creative Commons, and an adjunct faculty member in Brigham Young University's graduate program in Instructional Psychology and Technology. Dr. Wiley has received an NSF CAREER grant and was a Nonresident Fellow in the Center for Internet and Society at Stanford Law School as well as a Peery Social Entrepreneurship Research Fellow in the Marriott School of Business at Brigham Young University. As a social entrepreneur, Dr. Wiley has founded or co-founded numerous entities including Lumen Learning, Degreed, and the Open High School of Utah (now Mountain Heights Academy).

Chapter 2
The Single Canon: MOOCs and Academic Colonization
Karen Head, The Georgia Institute of Technology, USA

Abstract: Concerns about course design for Massive Open Online Courses (MOOCs) are myriad, and require attention to more than just content and delivery. Minimal consideration has been given to the issues related to exclusivity in the highly publicized MOOC instructor and institutional pools, and, by extension, the limited number of approaches to teaching by any subject presented as a MOOC. Beginning with a broad consideration of the canon as it relates to course design, this author details a case study of the first-year writing course she taught as a MOOC. The

author argues against single-provider models and discusses ways MOOCs might be used to leverage the advantages of a large student enrollments to make MOOCs more diverse and inclusive.

Karen Head is Director of the Communication Center at the Georgia Institute of Technology, and an Assistant Professor in the School of Literature, Media, and Communication. Her research areas focus on writing and communication theory and pedagogical practice. In 2012-13, she was part of the GT team awarded a Gates Foundation Grant to develop one of the first MOOCs focused on college writing. She has published several articles about that experience.

Chapter 3
MOOCs and Open Education in Japan: A Case of the Open University of Japan
Kumiko Aoki, The Open University of Japan

Abstract: Technology adaptation in education, including higher education, is relatively slow in Japan in contrast to what many people outside of the country may have imagined. Even so, MOOCs have had a widespread and strong impact on stakeholders in higher education in Japan. This chapter describes various historical developments of distance education and open education in Japan from social and cultural vantage points. It also discusses the unique characteristics of the Open University of Japan as a distance open education university which owns and operates over-the-air broadcasting stations. In effect, the chapter illustrates the struggles and efforts of the Open University of Japan to offer online education within particular socio-cultural contexts of Japanese higher education and open education.

Kumiko Aoki is Professor of Informatics and Professor in the Center of Open and Distance Education at the Open University of Japan. Previously she was Associate Professor at the National Institute of Multimedia Education (NIME), Japan, from 2004 to 2009, Assistant Professor of Communication at Boston

University from 1998 to 2003, and Assistant Professor of Information Technology at Rochester Institute of Technology from 1995 to 1998. She received her Ph.D. in Communication and Information Sciences from the University of Hawaii at Manoa in 1995. Drawing on her interdisciplinary and transcultural background, she spoke at international conferences and published articles both in Japanese and in English on the topics ranging from distance education, e-learning, learning design, cross-cultural collaborative learning, and tele-collaboration.

PART TWO. Open Education Opportunities Now and On the Horizon

Chapter 4
MOOCs, MERLOT, and Open Educational Services
Gerard L. Hanley, Executive Director, MERLOT and Assistant Vice Chancellor, California State University, Office of the Chancellor, USA

Abstract: Massive open online courses are a recent evolution of open educational resources and services and can be used to address a number of higher education needs without radically disrupting the ecosystem. As a pioneer in open educational services, MERLOT (Multimedia Educational Resources for Learning and Online Teaching, www.merlot.org) has continuously developed its community, resources, and services to provide free and open teaching and learning environments for all teachers and learners, from "K to gray." Since the late 1990s, MERLOT has enabled educational institutions to deliver quality, customized, and affordable access to the learning resources and tools that they need to succeed.

Gerard L. Hanley is the Executive Director of MERLOT (Multimedia Educational Resource for Learning and Online Teaching at www.merlot.org) and Assistant Vice Chancellor for Academic Technology Services for the California State University (CSU), Office of the Chancellor (www.calstate.edu/ats). At MERLOT, he directs the development and sustainability of MERLOT's international consortium of higher education institutions, professional societies, digital libraries, and corporations to provide

professional development and technology services to improve teaching and learning. At the CSU, Gerry oversees the development and implementation of systemwide academic technology initiatives serving CSU's 23 campuses with over 22,000 faculty and over 445,000 students. He can he contacted at ghanley@calstate.edu.

Chapter 5
Enabling Open Education: A Feasibility Protocol for Australian Higher Education

Carina Bossu, University of Tasmania, Australia
David Bull, University of Southern Queensland, Australia
Mark Brown, Dublin City University, Ireland

Abstract: This chapter discusses some of the findings of a centrally funded research project that investigates the state of play of open educational resources (OER) in higher education in Australia. According to study participants, the use of OER has the potential to lead to new pedagogical practices, improve the quality of educational learning materials, and promote and increase access to education. In addition, the chapter presents a "Feasibility Protocol," which is a key outcome of this project. The chapter raises issues for consideration by educational institutions hoping to take advantage of the OER movement. Such issues are explored in this chapter at the organisational level.

Carina Bossu is a Lecturer, Learning and Teaching (OEP) with the Tasmanian Institute of Learning and Teaching, at the University of Tasmania, Australia. Her current work and research are primarily focused on Open Educational Resources (OER) and Open Educational Practices (OEP) in higher education; more specifically, she is exploring issues related to learning, teaching, and professional development. Bossu has presented and published widely and is currently involved in several research projects investigating different aspects of OER and OEP in higher education. Contact Carina at carina.bossu@gmail.com.

David Bull is currently the Director of the Open Access College at the University of Southern Queensland. His research interests lie primarily with issues related to equity and access policy in higher education and preparatory program curriculum development. He has extensive teaching and consultancy experience primarily associated with aspects of student diversity in higher education. More recently he has been involved with the 'open agenda,' pursuing Open Educational Resources (OER) and Open Educational Practices (OEP) activities, supporting the work of the OERu, and advocating for the wide spread adoption of open practices for the delivery of higher education.

Mark Brown is Director of the National Institute for Digital Learning based at Dublin City University (DCU). Before taking up Ireland's first Chair in Digital Learning at the beginning of 2014, Mark was previously Director of both the National Centre for Teaching and Learning and the Distance Education and Learning Futures Alliance (DELFA) at Massey University, New Zealand. Mark has played key leadership roles in the implementation of several major university-wide digital learning and teaching initiatives, including the enterprise wide deployment of Moodle, the original design and development of the Mahara eportfolio system, and the university-wide implementation of a Massive Open Online Course (MOOC) platform.

Chapter 6
Open Education at the University of Cape Town
Laura Czerniewicz, Glenda Cox, Cheryl Hodgkinson-Williams, and
Michelle Willmers, University of Cape Town, South Africa

Abstract: At the University of Cape Town, open education and open scholarship activities and projects have taken place in several guises over the past seven years. They have been loosely connected, driven by champions and enabled by external grant funding. Open education practices and advocacy work has been firmly grounded in a collegial institutional culture, with the concomitant implications. The year 2014 saw this organic growth come together in an institutional commitment expressed in a Council-approved holistic open access policy as well as in the launch of a repository curating both open education resources and research. This maturation process was also seen in a decision by the library to provide a home for much of the work, partnered by the Centre for Innovation in Learning and Teaching. The work has been accompanied by a commitment to researching practice, and has seen a number of studies completed, with a large scale research project underway on OERs across the global south. The open education agenda has been driven by a commitment to high quality education, by a belief in access to knowledge, by the hope for economies in the system, and through the Internet enabling the collaboration already woven into the academy to take a new networked and transparent form. Given its location, there has also been an acknowledgement of the need to make openly available locally developed teaching resources and research scholarly content from the global south.

Laura Czerniewicz, researcher, educator, advocate, and strategist, is Associate Professor and the director of the University of Cape Town's Centre for Innovation in Learning and Teaching (CILT). In addition, she recently headed the university's OpenUCT initiative. Previously having worked in educational publishing, Professor Czerniewicz was the founding director of the Centre for Educational Technology. She has research interests in student and academic digitally-mediated practices, in open education and scholarship, and in learning technology as a field.

Glenda Cox is a lecturer in the Centre for Educational at the University of Cape Town. Glenda Cox's portfolio includes: curriculum projects, "Teaching with Technology" innovation grants, open education resources, and staff development. Her key research area related to identifying why academic staff choose to share or not share their teaching resources as open educational resources. One of her main passions involves uncovering the innovative ways staff incorporate technology into their teaching. She believes that showcasing staff at The University of Cape Town who are excellent teachers is of great importance, both in traditional face-to-face classrooms and the online world.

Cheryl Hodgkinson-Williams is an Associate Professor in the Centre for Innovation in Learning and Teaching (CILT) at the University of Cape Town (UCT), South Africa. She holds a PhD in computer-assisted learning and has taught and supervised in the field of information communication technologies (ICTs) in education since 1998. Her particular research interests include online learning design, electronic portfolios, open education, the adoption and impact of open educational resources (OER), and Massive Open Online Courses (MOOCs). She is Principal Investigator of the IDRC-funded international Research on OER in the Global South (ROER4D) project.

Michelle Willmers has a background in academic and scholarly publishing. She was previously a senior team member in the Shuttleworth Foundation OER UCT initiative. She was also programme manager of the IDRC Scholarly Communication in Africa Programme (SCAP), a four-country research and publishing initiative aimed at increasing the

visibility of African research. She is currently the project manager of the OpenUCT initiative.

PART THREE. Researching and Evaluating Notions of MOOCs and Openness

Chapter 7
Strange Bedfellows?!: What can MOOCs Learn from Distance Education?

Markus Deimann, Alexander Lipka, and Theo Bastiaens, FernUniversität in Hagen, Germany

Abstract: The article relates MOOCs and distance education courses on both a theoretical and an implementation-based level. First, the researchers link the comparatively recent discourse on MOOCs to the much older and richer theoretical tradition of distance education that, so far, has received little attention by MOOC researchers. Next, they illustrate how MOOCs can be utilised within a Distance Education ecosystem. To that end, Deimann, Lipka, and Bastiaens present data-based comparisons of a traditional Distance Education course and two different types of MOOCs offered by FernUniversität in Hagen, Germany. Finally, they discuss what MOOCs can learn from Distance Education and derive some instructional recommendations.

Markus Deimann was a Research Assistant in the Department of Instructional Technology and Media from May 2006 to August 2013. Since September 2013, he has been Assistant Professor (Akademischer Rat) and completed his studies of Educational Sciences and Political Sciences at the University of Mannheim. He has been working as Research Assistant on the Project "Multimedia-based Distance Study Medical Computer Science" at the Ilmenau University of Technology and at the University of Erfurt. In addition, he has been Visiting Scholar at the Florida State University, Tallahassee (USA) for one year. In

2011, he was a Scholarship Holder at the Open University (UK) for three months.

Alexander Lipka is a Research Assistant with the Department of Instructional Technology & Media at FernUniversität in Hagen, Germany. He holds a diploma in Education from the University of Münster, Germany. His research interests include instructional media choice, Cognitive Task Analysis, and domain-general instructional principles. His current line of research examines how implementing instruction with Social Media influences the way learners traverse learning event spaces. Contact: alexander.lipka@fernuni-hagen.de

Theo J. Bastiaens is full professor at the Institute for Educational Science and Media Research of the Fernuniversität in Hagen, Germany. In addition to this appointment, he is part-time professor of Educational Technology at the Open University of the Netherlands. Bastiaens specific research interest is in Instructional Design and E-learning. He has published extensively in these areas.

Chapter 8
MOOCs Downunder: Insights from the Open2Study Experience

Maggie Hartnett, Massey University, New Zealand
Mark Brown, Dublin City University, Ireland
Amy Wilson, Massey University, New Zealand

Abstract: This chapter reports lessons from the design, implementation and evaluation of Open2Study [www.open2study.com] at Massey University. In 2013, Massey was New Zealand's first university to adopt an enterprise wide massive open online course (MOOC) platform. At that time, it selected the system known as Open2Study developed by Open Universities Australia (OUA). A brief overview of the debate over the disruptive nature of MOOCs in higher education helps to foreground our

description of this initiative. We then explain why Massey University decided to enter the MOOC space and outline some of the distinguishing features of Open2Study. Importantly, Massey initially developed three online courses for which this chapter provides a description along with an outline of the evaluation methodology. The chapter reports lessons learned from the experience 'downunder' and concludes with a number of questions relevant to the wider international context and the future of the MOOC movement.

Maggie Hartnett is a researcher and lecturer within the Institute of Education at Massey University, New Zealand in the areas of e-learning and digital technologies. Her research focuses on the intersection of technologies and pedagogies and their influence on learners' and teachers' experiences, motivation, engagement, and behavior in a variety of online, distance, and blended learning contexts. Her research interests include motivation and engagement in digital environments, teaching and learning with digital technologies, support for digital learners, digital places and spaces for learning, and electronic portfolios and mobile technologies. Maggie's research interests are not confined to formal learning settings.

Mark Brown is Director of the National Institute for Digital Learning based at Dublin City University (DCU). Before taking up Ireland's first Chair in Digital Learning at the beginning of 2014, Mark was previously Director of both the National Centre for Teaching and Learning and the Distance Education and Learning Futures Alliance (DELFA) at Massey University, New Zealand. Mark has played key leadership roles in the implementation of several major university-wide digital learning and teaching initiatives, including the enterprise wide deployment of Moodle, the original design and development of the Mahara eportfolio system, and the university-wide implementation of a Massive Open Online Course (MOOC) platform.

Amy Wilson teaches at Massey University in the Masters in Education (e-learning) program. Dr Wilson has developed online and blended courses and worked with teaching staff. Her interests are in MOOCs, professional development, learning design, and e-portfolios. From 2005 to 2008, she was a Convener of the eLearning Forum of the Institutes of Technology and Polytechnics in New Zealand. In this role, she facilitated international online conferences and served on national e-learning projects. In 2005-2006, Dr Wilson was selected for the Flexible Learning Leaders in New Zealand, a professional development scholarship awarded to emerging leaders in the tertiary e-learning sector.

Chapter 9
Reflections on an Early MOOC Provider: Achievements and Future Directions
Jeff Haywood, Amy Woodgate, and David Dewhurst, University of Edinburgh, Scotland, UK

Abstract: Edinburgh was one of the first UK universities to venture into MOOCs, joining Coursera in 2012, and is now the largest UK MOOC provider with over one million enrolments. The University of Edinburgh took a centrally coordinated approach to course design and development, with strong technical, pedagogical, and financial support for academic teams, backed up by formal course approval and quality assurance processes. From the outset, we have gathered consistent longitudinal data about our learners. This is helping us to understand how to design and target our MOOCs, use them in collaborations with other universities, and apply lessons learned to residential courses. In this chapter, we critically review our progress to date in offering MOOCs, describe the central systems we have put in place and the processes of selection and development of our MOOCs. The chapter also focuses on the potential benefits MOOCs can bring to a university, and the kinds of return on investment that they can deliver.

Jeff Haywood is Vice-Principal Knowledge Management, CIO and Librarian at the University of Edinburgh. He is head of the University's integrated Information Service, offering a wide range of services in Library, IT, Technology-Enhanced Learning and Classroom Technology. Jeff leads many major University-wide initiatives, including the substantial expansion of taught online distance Master's degrees and Massive Open Online Courses (MOOCs). As Professor of Education and Technology in the University's School of Education, his research interests are in the development of strategies for effective use of ICT in education at institutional, national, and international levels. He is currently academic lead on a European Commission study of EU government options for modernising HE using technology. Jeff is past member of the JISC Board and past Chair of the eLearning Task Force for the Coimbra Group. He is currently a member of the Scottish Government's ICT for Excellence Group which is designing the next generation digital learning environment for Scottish schools.

Amy Woodgate is the Project Manager of Edinburgh University's Online Learning Special Projects, based within the Vice Principal's Office of Information Services. She is responsible for the expansion of the University's online learning portfolio through strategic investment projects, including the Distance Education Initiative – fully online master's programmes – and Massive Open Online Courses.

David Dewhurst has a life sciences background and over 25 years teaching experience. He is Professor of e-Learning, Director of Educational Information Services in Medicine and Veterinary Medicine, and academic lead of a university-wide distance education initiative. His research in TEL is internationally renowned. David has over 250 peer-reviewed publications, significant grant

income, several PhD students, and directed major educational projects in Africa and Eastern Europe. Major prizes include a prestigious Queen's Anniversary Prize for Higher and Further Education in 2005 for 'The Virtual Hospital Online' and the Doerenkamp-Zbinden Foundation International Prize for Animal free Research in 2006.

PART FOUR. Thoughts on the Quality of MOOCs and OER

Chapter 10
AMP: A Tool for Characterizing the Pedagogical Approaches of MOOCs

Karen Swan, Scott Day, Leonard Bogle, and Traci van Prooyen,
University of Illinois Springfield, USA

Abstract: This chapter reports on the development and validation of a tool for characterizing the pedagogical approaches taken in Massive Open Online Courses (MOOCs). The Assessing MOOC Pedagogies (AMP) tool characterizes MOOC pedagogical approaches on ten dimensions. Preliminary testing on 20 different MOOCs demonstrated high inter-rater reliability and the facility of the measure to distinguish differing pedagogical patterns. The patterns distinguished pedagogical approaches among MOOCs across content areas and seemed to be related to what Sfard (1998) termed metaphors for learning – acquisition vs. participation. A third pattern related to self-regulated learning may also be distinguished.

Karen Swan is the Stukel Distinguished Professor of Educational Leadership at the University of Illinois Springfield. Her research is in the general area of technology and learning, on which she has published over 125 journal articles and book chapters and co-edited two books. Her research currently focuses on online learning, learning analytics, and MOOCs. She was awarded Most Outstanding Achievement in Online Learning by an Individual by the Online Learning Consortium,

the Distinguished Alumnus Award from Teachers College, Columbia University, and the Burks Oakley II Distinguished Online Teaching Award from UIS. She is a Fellow of the Online Learning Consortium.

Scott Day is Professor and Chair of the Department of Educational Leadership at the University of Illinois at Springfield. He holds an Ed.D. in Educational Organization and Leadership from the University of Illinois at Urbana-Champaign. Dr. Day teaches courses on Instructional Leadership and Assessment for Learning Online. The program was awarded the Sloan-C Outstanding Program of the Year in 2010. In 2010, Dr. Day was awarded the Pearson Faculty Award for Outstanding Teaching at the University of Illinois at Springfield. Dr. Day has published on design-based approaches to improving online courses, using peer review and analytics to develop communities of inquiry in online courses, most recently, on pedagogical approaches to massive open online courses (MOOCs).

Leonard Bogle is an Associate Professor in the Educational Leadership program and a University Fellow at the University of Illinois at Springfield where he serves as a Master Teacher Leader (MTL) online instructor. His major areas of interest are enhancement of online instruction through the improvement of course design and the analysis of pedagogy as presented in MOOC offerings. He is part of a team that has published three book chapters on these topics. He has taught master's courses in leadership, curriculum design, introduction to research, Capstone projects, Masters Closure projects, organizational dynamics, and teacher evaluation and assessment.

Traci Van Prooyen is an Assistant Professor in the Teacher Education Department at the University of Illinois at Springfield. She holds an Ed.D. in Curriculum and Instruction from Illinois State University. Dr. Van Prooyen teaches courses on Child Development, Educational Psychology, Classroom Management, Exceptional Child, and Curriculum, Planning, and Assessment. In addition to her interests related to online pedagogy, Dr. Van Prooyen's research interests also includes the qualitative aspects of teaching related primarily to dispositions.

Chapter 11
Quality Assurance for Open Educational Resources: What's the difference?

Sanjaya Mishra, Commonwealth of Learning, New Delhi, India, and Asha S. Kanwar, Commonwealth of Learning, Vancouver, BC, Canada

Abstract: The emergence of the Open Educational Resources (OER) movement has provided the Commonwealth of Learning (COL) with a means to promote access to quality educational materials in the developing countries of the Commonwealth. While OER brings in several advantages, issues of quality remain a concern. The Commonwealth Educational Media Centre for Asia (CEMCA), a regional centre of COL, has been engaged in developing guidelines for quality assurance of OER. This paper presents the quality guidelines for OER using the TIPS framework, namely: (1) Teaching and Learning, (2) Information and content, (3) Presentation, and (4) Technology. While the authors emphasize the need for quality guidelines, they recommend that teachers and learners should be able to use the criteria to decide on the quality of OER from different perspectives. The paper also argues for the need for appropriate policy for OER, capacity building, the use of appropriate technology, and the development of exemplar courses to promote OER quality.

Sanjaya Mishra is Director of the Commonwealth Educational Media Centre for Asia (CEMCA). A leading scholar in open, distance and online Learning in Asia, Dr. Mishra previously served as Programme Specialist (ICT in Education, Science and Culture) at UNESCO, Paris and as Associate Professor of Distance Education at the Staff Training and Research Institute of Distance Education of Indira Gandhi National Open University, India. Dr. Mishra has received the ISTD-Vivekanand National Award for Excellence in Human Resource Development and Training in 2007. Dr. Mishra was recipient of the Indian Library Leaders Professional Excellence Award 2012 and Prof. G. Ram Reddy Memorial Social Scientist Award 2013.

Asha Kanwar is the President and CEO of the Commonwealth of Learning (COL), Vancouver, Canada. She is an internationally renowned Distance Educator who is also known for her pioneering contributions in the area of learning for development. She has made significant contributions to gender studies, especially the impact of distance education on the lives of Asian women. A recipient of several awards, fellowships, and Honorary Doctorates, Professor Kanwar has studied and worked in different contexts, both developing and developed. She received her master's and MPhil degrees from the Panjab University in India and DPhil from Sussex.

Chapter 12
MOOCs for Opening Up Education and the OpenupEd Initiative
Fred Mulder, UNESCO Chair in Open Educational Resources at the Open University of the Netherlands, Darco Jansen, European Association of Distance Teaching Universities (EADTU), The Netherlands

Abstract: The pan-European OpenupEd MOOCs initiative combines the 'classical' notion of openness attached to open universities with the digital openness now possible through Open Educational Resources. OpenupEd's mission is to open up education. The chapter's leading question is whether MOOCs in general are instrumental to open up education. To that end, all barriers to learning should be taken away, and learners should receive incentives towards success. As such, eleven barriers and three incentives are examined in this chapter. In the end, it appears that four barriers can be removed by MOOCs and their providers, for four others this is dependent on their readiness, and for the remaining three it is problematic. The three incentives can be offered through MOOCs but at the cost of substantial effort. The OpenupEd 'score' is better or at least equal to what is shown as indicative for the wide variety of MOOC initiatives. This could be expected because of the distinct mission of OpenupEd. Other MOOC providers might also consider to move into such a mission of opening up education and may find valuable ingredients in the chapter for a way forward.

Fred Mulder holds a UNESCO/ICDE Chair in OER at the Open University of The Netherlands (OUNL). Previously, he was OUNL Rector for more than a decade. He is actively involved in OER initiatives and policies at the national level, by UNESCO, the OECD, and the EU. He is chairing the first pan-European MOOCs initiative called OpenupEd which was launched in April 2013 by EADTU (i.e., the European Association of Distance Teaching Universities). In addition, he is leading the Global OER Graduate Network. Mulder has received a Royal decoration (2007) for his work in Lifelong Learning, the ICDE Individual Prize of Excellence (2012) for his efforts in OER, and the Leadership Award for OpenCourseWare Excellence (2014).

Darco Jansen is programme manager at EADTU (i.e., the European Association of Distance Teaching Universities). He is responsible for development of different long term themes for EADTU (-members) on online

education, MOOCs and OER, employability, and open and social innovation (e.g., with small businesses). In addition, he is coordinator of several European projects. Darco's fields of expertise are e-learning, open innovation, educational business development, continuous education, non-/informal learning, and workplace learning. He worked for over 20 years at the Open Universiteit of the Netherlands. Currently, Darco is the coordinator of the first pan European MOOC initiative called OpenupEd.

PART FIVE. Innovative Courses, Programs, and Models of Instruction

Chapter 13
Unbundling Higher Education and the Georgia Tech Online M.S. in Computer Science: A Chronicle
Richard DeMillo, The Georgia Tech Institute of Technology, USA

Abstract: In early 2013, Zvi Galil, Dean of Georgia Tech's College of Computing, announced an online master's degree in computer science (OMSCS) based entirely on Massive Open Online Courses (MOOCs). Anyone could enroll for free and take courses, but in order to satisfy the requirements for a degree, a student would first have to be admitted to Georgia Tech's highly selective program and pay tuition. However, unlike normal tuition and fees, the OMS would charge students only for those services that were actually used to deliver course content. At program launch, that fee was less than seven thousand dollars, which amounted to a discount of nearly seventy percent. In what many observers said was a bold experiment, the program began accepting students for a January 2014 launch. Georgia Tech, however, does not look at this degree as a simple experiment. Rather, it is a prototype for an alternative kind of academic program. Like all prototypes, it will be revised and refined over time. However, it stands alone as the first of its kind; a unique program that warrants a chronicle of the rationale and institutional decision-making that went into its development.

Richard DeMillo is an American engineer and computer scientist who specializes in cyber security, software engineering, and educational technology. He is Director of the Center for 21st Century Universities and Charlotte B. and

Roger C. Warren Chair of Computer Science and Professor of Management at the Georgia Institute of Technology. He is best known for his pragmatic style of working on technical, business, and policy problems and has helped guide public and private organizations through times of tumultuous change, including the 2002 Compaq-HP merger and the 1990's divestiture of Bellcore by the Bell Operating Companies. His 2011 book, "*Abelard to Apple: The Fate of American Colleges and Universities*," was a seminal work that helped shape the current international conversation about the future of higher education.

Chapter 14
Creating a Temporary Spontaneous Mini-Ecosystem through a MOOC

Paul Kim, Stanford University, USA and Charlie Chung, Class Central, USA

Abstract: In this chapter, Paul Kim and Charlie Chung describe their experience with a MOOC, "Designing a New Learning Environment," initiated in the fall of 2012. Paul Kim developed this MOOC to explore how MOOCs could help facilitate improvements in global education by identifying future global education leaders, sourcing educational innovations, and providing development experiences at scale. The MOOC attracted more than 18,000 sign-ups in over 200 countries, while generating enthusiastic engagement among participants. Many elements that were missing in the MOOC's educational ecosystem (e.g., pointers to additional resources, timely reposting of events and ideas, personalized feedback, etc.) were supplied by participants who self-organized to provide them. This level of emergent voluntarism (made feasible, ironically, by the MOOC's short duration), established the validity of identifying global leaders. The resulting high level of interaction supported the potential of MOOCs as a platform to spur new innovations and provide training. Hope is thus held out that MOOCs may be utilized to further improve global education.

Paul Kim is the Chief Technology Officer and Assistant Dean of the Graduate School of Education at Stanford University. Dr. Kim served on the Board of Directors of WestEd, the Committee on Grand Challenges in

International Development for the National Academies of Science, and the advisory committee for the National Science Foundation's Education and Human Resources Directorate. As founder of Seeds of Empowerment, a non-profit global education incubator for social innovations leveraging mobile technologies, Paul has developed, implemented, and evaluated an array of technology tools for underserved and hard to reach communities as a means of addressing literacy gaps. Dr. Kim has implemented various mobile learning pedagogies such as SMILE (Stanford Mobile Inquiry-based Learning Environment) in over 22 countries. He launched a MOOC on designing new learning environments in the Stanford Venture Lab (now called NovoEd) which attracted over 20,000 students from around the world. His involvements in overseas projects include Oman's launch of a new national public university, Deutsche Telekom's global e-learning initiative, Saudi Arabia's national online education initiative, the national evaluation of Uruguay's One Laptop Per Child project, and Rwanda's national ICT planning.

Charlie Chung has a background in management consulting and works in entrepreneurial ventures in the area of his passion; namely, lifelong learning. He works with Class Central (www.class-central.com), a comprehensive MOOC directory, and ZS Associates, a global sales and marketing consulting firm, on a new venture in corporate learning. Charlie holds an MBA from the Ross School of Business at the University of Michigan.

Chapter 15
Learning about MOOCs by Talking to Students
Charles Severance, University of Michigan, USA

Abstract: MOOCs make it possible for millions of students from all over the world to be involved in large world-wide collective educational experiences. Because the courses are free and widely publicized, millions of students from all ages and walks of life are participating in online education for the first time. It is both tempting and easy to aggregate all the student data and come up with an "average" that is well supported by

that data. This chapter takes a different approach by focusing on the smallest of "small data." Chuck Severance, from the University of Michigan, is an early Internet pioneer who has hosted radio and television shows on Internet technology. He has been teaching a series of MOOCs related to computer programming and the history, technology, and security of the Internet on Coursera since 2012. During the past few years, he has traveled to over 30 locations around the world where he has held face-to-face office hours with his MOOC students in cafes and coffee shops (e.g., Seoul, Manila, Perth, Melbourne, London, New York, Los Angeles, Chicago, Quebec, Mexico City, Amsterdam, etc.). By talking to these students individually, he better understands the breadth and diversity of the reasons they take MOOCs and the value they are gaining from their participation in MOOCs. This chapter shares anecdotal stories from those students as a way to add some detail to the large aggregate results about MOOC participant behavior and results.

Charles Severance has a B.S., M.S., and Ph.D. in Computer Science from Michigan State University. He is currently a Clinical Associate Professor and teaches in the School of Information at the University of Michigan. Charles teaches two popular MOOCs to students worldwide on the Coursera platform: Internet History, Technology, and Security and Programming for Everybody. He is also the editor of the Computing Conversations column in IEEE Computer magazine and is the author of the book, *"Sakai: Building an Open Source Community."* In addition to viewing media as a personal hobby, Charles has co-hosted several television shows including "Nothin but Net" produced by MediaOne and "Internet:TCI." He has also co-hosted a radio show for 10 years on Internet and Technology.

Chapter 16
The Collaborative Design and Development of MOOCs for Teacher Professional Development
Bernard Robin, and Sara McNeil, University of Houston, USA

Abstract: The design and development of two MOOCs on Digital Storytelling and Web. 2.0 tools that were created using the Webscape design model are described in this chapter. In this authentic project, the authors, along with their graduate students, collaboratively designed and developed MOOCs that focused on professional development for K-16 teachers. The Webscape model provides a structure for small teams of students to work with faculty who serve as content experts throughout the entire process of instructional design, from brainstorming through formative evaluation. Key components and lessons learned in the MOOC design and development process are shared from a faculty member perspective.

Bernard Robin, Associate Professor of Learning, Design and Technology at the University of Houston, teaches traditional and online courses on the integration of technology into the curriculum, emphasizing educational uses of multimedia. He is a recognized leader in the educational uses of digital storytelling and has been teaching courses, conducting workshops, writing articles, and supervising student research on the subject for over a decade. His Educational Uses of Digital Storytelling website (http://digitalstorytelling.coe.uh.edu/) serves as a resource for educators and students interested in how digital storytelling can be integrated into a wide variety of educational activities.

Sara McNeil, Associate Professor of Learning, Design and Technology at the University of Houston, teaches courses in instructional design, the collaborative design and development of multimedia, and the visual representation of information. She also researches, publishes, and presents internationally about emerging technologies in educational environments. Her multimedia projects include the design and development of Digital History (http://www.digitalhistory.uh.edu), a comprehensive resource that provides teachers and students with a wealth of high quality, historical resources at no charge, and New Technologies,

(http://newtech.coe.uh.edu), a website for K-16 teachers to help them select an appropriate Web 2.0 tool for a specific task.

Chapter 17
Feminist Alternatives to Massive Open Online Courses (MOOCs): The Inception of the Distributed Open Collaborative Course (DOCC)

Erika M. Behrmann, Bowling Green State University, USA
Radhika Gajjala, Bowling Green State University, USA
Elizabeth Losh, University of California, San Diego, USA
T.L. Cowan, The New School, USA
Penelope Boyer, San Antonio, TX, USA
Jasmine Rault, The New School, USA
Laura Wexler, Yale University, USA
CL Cole, University of Illinois, USA

Abstract: In 2012 the Distributed Open Online Course (DOCC) and FemTechNet, a network of scholars, artists, and students who engage with feminism and technology, were formed. As a viable, and more socially just, alternative to the Massive Open Online Courses (MOOCs), the DOCC embodies six core values: (1) Effective pedagogy that reflects feminist principles; (2) A disruption of the structural status quo within educational institutions; (3) A challenge to the assumption that access to technology guarantees access to knowledge while ameliorating issues of labor in education; (4) An understanding that technoscientific choices are not value-neutral and infrastructure is not simply choosing among consumer products; (5) A recognition of regional and cultural complexities; and (6) An innovative experimentation that enables learning for its multiple stakeholders. This chapter discusses the impetus behind the DOCC and argues that, through the embodiment of these values, the DOCC has become a successful replacement for the more well-known MOOC.

Erika M. Behrmann is a doctoral student at Bowling Green State University. She has a M.A. in Women's and Gender Studies and is working towards a Ph.D. in the School of Media and Communications. Her research focuses on feminist theory, postfeminism, pedagogy, postcolonialism, and their various

intersections and materializations within digital media and gaming. Her work has been presented at several national conferences such as the National Women's Studies Association and National Communication Association.

Radhika Gajjala is Professor of Media and Communication at Bowling Green State University. She is author of *Cyberculture and the Subaltern* (Lexington Press, 2012) and *Cyberselves: Feminist Ethnographies of South Asian Women* (Altamira, 2004). She has also co-edited books, including *Cyberfeminism 2.0* (2012), *Webbing Cyberfeminist Practice* (2008), and *South Asian Technospaces* (2008). She is also a member of the Fembot Collective and FemTechnet (participating in the DOCC nodal teaching projects) and is co-editor (with Carol Stabile) of "ADA: Journal of Gender, New Media and Technology."

Elizabeth Losh is Director of Academic Programs, Sixth College at the University of California, San Diego. She writes about gender and technology, the digital humanities, distance learning, connected learning, media literacy, and the rhetoric surrounding regulatory attempts to limit everyday digital practices. Liz is the author of *Virtualpolitik: An Electronic History of Government Media-Making in a Time of War, Scandal, Disaster, Miscommunication, and Mistakes* (MIT Press, 2009) and *The War on Learning: Gaining Ground in the Digital University* (MIT Press, 2014). She is the co-author of the comic book textbook *Understanding Rhetoric: A Graphic Guide to Writing* (Bedford/St. Martin's, 2013) with Jonathan Alexander. She is currently working on a new monograph, tentatively entitled *Obama Online: Technology, Masculinity, and Democracy,* and a new edited collection from University of Chicago Press about MOOCs and other experiments in scale and access in higher education.

T.L. Cowan is a writer, performer and professor currently living in Brooklyn, NY. She teaches at Eugene Lang College in Culture &

Media, Gender Studies, and Integrated Arts and is the FemTechNet Chair of Experimental Pedagogies in the School of Media Studies at The New School. Across her various practices, T.L. is deeply committed to the knowledges and aesthetics of transformational media, performance, and subjects and scenes. Her homepage can be accessed at: http://tlcowan.net/.

Penelope Boyer is involved in community-based work in San Antonio, TX. She conceived and directs the LHI Art-Sci Projects at Land Heritage Institute (LHI), 1200 acres of open space under development as a land museum. She holds a Ph.D. from the European Graduate School (EGS) in Saas Fee, Switzerland. Her book, *My Great High-Roofed House: Homer's Penelope~Paradigm, Periphrasis, Periphron, Phenomenology, Poesis, Poludeukes and Praxis* (Atropos Press, 2012) treats the gynaeceum as a homosocial setting for early technology, among other things.

Jasmine Rault is an Assistant Professor in Culture and Media at Eugene Lang College at The New School in New York City. Rault works on themes of feminist and queer affective and cultural economies and has new work in *ephemera*, "The Labour of Being Studied in a Free Love Economy" (with T.L. Cowan, 2014); *Women's Studies Quarterly* on racialized queer debt and the politics of history-making (with Cowan, 2014); and *Ada: A Journal of Gender, New Media and Technology* on designing trans- feminist and queer online archives (with Cowan and Dayna McLeod, 2014). Rault's first book is *Eileen Gray and the Design of Sapphic Modernity: Staying In* (2011).

Laura Wexler is Professor of American Studies, Professor of Women's, Gender & Sexuality Studies, Director of The Photographic Memory Workshop, Principle Investigator of the Photogrammar Project, and Co-coordinator of the Public Humanities Program at Yale University. A scholar and theorist of visual culture, she authored the prize-winning book, *Tender Violence: Domestic Visions in an Age of US Imperialism*, and the book, *Pregnant Pictures*, with photographer Sandra Matthews, as well as many other publications. Currently she is working the intergenerational transfer of historical memory in family photograph albums. She holds an MA, MPhil, and PhD in English and Comparative Literature from Columbia University.

CL Cole is Professor and Head of Media & Cinema Studies and Professor of Gender & Women's Studies, Criticism & Interpretive Theory, and the Information Trust Institute at the University of Illinois at Urbana-Champaign. Cole studies and teaches about sport, bodies and technology, media literacy, and digital technology and pedagogy.

PART SIX. MOOCs and Open Education in the Developing World

Chapter 18
Changing the Tune: MOOCs for Human Development? – A case study
Balaji Venkataraman, Director for Technology and Knowledge Management, and Asha S. Kanwar, President and CEO, Vancouver, BC, Canada

Abstract: MOOCs originated in and are perceived to be associated with higher education, flourishing mostly in the milieu of North America. MOOCs are associated with global brands and celebrated research institutions. Can MOOCs make a contribution to advancing human development? Can institutions in developing countries derive new advantages from the MOOC phenomenon? These are some of the concerns addressed in this chapter. The Commonwealth of Learning (COL) organised a MOOC on Mobiles for Development (M4D, 2013) with about 2,200 participants from 116 countries. Both the evaluation and participant feedback affirm its resounding success. Using the results from a study of this particular MOOC, the authors present an analysis and the outline of a model for a MOOC for Development (MOOC4D). They also discuss one of their latest projects called "MOOC on MOOCs" that targets academics and government officials working in the area of human development as well as professionals and potential leaders of NGOs on how MOOCs might foster vital training and education in the developing world. In addition, the authors detail a new MOOC for semi-skilled gardeners and subsidence farmers on the latest in horticulture production techniques.

Balaji Venkataraman is the Director for Technology and Knowledge Management at the Commonwealth of Learning (COL), Vancouver, Canada. He is a worker in the area of IT applied to rural development and learning. His recent work relates to applications of semantic Web technologies in agriculture. His current interests are in deploying new generation mobile devices in rural learning and in examining the advantages of MOOCs in support of skill development. Balaji received his master's and doctoral degrees from the Indian Institute of Technology and the University of Madras.

Asha Kanwar is the President and CEO of the Commonwealth of Learning (COL), Vancouver, Canada. She is an internationally renowned Distance Educator who is also known for her pioneering contributions in the area of learning for development. She has made significant contributions to gender studies, especially the impact of distance education on the lives of Asian women. A recipient of several awards, fellowships and Honorary Doctorates, Professor Kanwar has studied and worked in different contexts, both developing and developed. She received her master's and MPhil degrees from the Panjab University in India and DPhil from Sussex.

Chapter 19
Harnessing the Power of Open Learning to Share Global Prosperity and Eradicate Poverty
Sheila Jagannathan, The World Bank, Washington DC, USA

Abstract: Open Learning offers exciting potentials for building capacity on scale in developing countries. This chapter briefly describes the challenges of building a knowledge sharing and learning culture for eradicating poverty and sharing global prosperity. Two interesting and informative examples of MOOCs from the World Bank are described in this chapter, including one on climate change and another on managing risk for development. Several key problems and issues are pointed out including those related to feedback mechanisms that need to be put in place for course redesign, the technical training and peer support of MOOC participants, and the capability of tracking reasons that development professionals fail to complete MOOCs. Jagannathan concludes with a discussion of the newly established Open Learning Campus and its emerging suite of tools and resources for addressing the needs of World Bank clients, the general public, and World Bank staff. She also discusses the many challenges it faces in customizing program design to cater to the many languages and countries of the world.

Sheila Jagannathan is Lead Learning Specialist and Program Manager of the e-Institute, at the World Bank Institute in Washington DC. She has over 28 years of experience in designing and managing distance learning programs and transforming the use of online and classroom pedagogies and technology. Sheila also provides policy advice and technical assistance to World Bank country-level capacity building programs in East Asia, China, the Middle East and North Africa, Africa, and South Asia. Her interest areas include MOOCs, experiential pedagogy, online and hybrid or blended learning strategies, the development of rich multimodal and social learning environments, big data and learning analytics, learning management systems, and learning ecosystems.

Chapter 20
The Glocalization of MOOCs in Southeast Asia

Zoraini Wati Abas, Universitas Siswa Bangsa Internasional – The Sampoerna University, Jakarta, Indonesia

Abstract: With increasing access to the Internet, the rising demand for higher education, and the high profile MOOC examples from Stanford University and other well-known universities, educators in Southeast Asia have become attracted to the idea of offering MOOCs. Although slower to join the bandwagon, many institutions in Southeast Asia, both public and private, have begun to launch massive open online courses that meet the local needs. Many of these courses are being designed for the local students and, as such, are delivered in local languages. This chapter provides an overview of the development of MOOCs in Southeast Asia in general, and in Malaysia and Indonesia in particular. It discusses the glocalization of MOOCs (i.e., taking the general concept of MOOCs and designing an educational experience for the local audience rather than having the local audience enrol in MOOCs from institutions overseas) within this region of the world and in these two countries. Examples from both public and private universities in Malaysia and Indonesia are discussed as well as a way forward for both in the coming years.

Zoraini Wati Abas is a Professor in the field of instructional technology. She has worked in both government and private universities in Malaysia and Indonesia. She is now Director, Center for Learning, Teaching and Curriculum Development at USBI-The Sampoerna University in Jakarta. Zoraini is an e-learning pioneer and has played a key role in open and distance learning, mobile learning, and in designing learning with appropriate learning technologies. In 2014, she received the Education Leadership Award from the World Corporate Universities Congress in Mumbai, India and was named second of 14 influential higher edu tech leaders in Southeast Asia.

Chapter 21
Situating MOOCs in the Developing World Context: The Philippines Case Study

Melinda dela Pena Bandalaria and Grace Javier Alfonso, University of the Philippines Open University, the Philippines

Abstract: This article discusses the offering of MOOCs in the context of a developing country, the Philippines. It also describes how a quality assurance framework for open and distance elearning was adapted to address the issues and concerns challenging this form of teaching and learning. The authors of this chapter draw on insights from the experience of the University of the Philippines Open University (UPOU) in offering credit and non-credit courses in the distance elearning mode for more than a decade. Bandalaria and Alfonso also highlight recommendations from experienced academics in the design of the Learning Management System used for MOOCs. The resulting MOOC framework, MODeL (Massive Open Distance eLearning), is described. The authors end with several insights from UPOU MOOC offerings as well as important considerations in planning for MOOCs.

Melinda Bandalaria is Professor at the University of the Philippines Open University where she also serves as Dean of the Faculty of Information and Communication studies. She handles distance elearning courses both at the undergraduate and graduate levels and is actively involved in research and community development projects. Mel has helped coordinate international conferences on open education and written extensively on e-learning in the Philippines. She was a panelist and key participant in the preconference symposium at E-Learn 2013 in Las Vegas which led to this book.

Grace Javier Alfonso is a professor of Film and Mass Communication. She has been the University of the Philippines Open University Chancellor since 2007 and is now serving her third term. She is the current President of the Philippine Society for Distance Learning. She is also Chair of the Philippine Commission on Higher Education (CHED) Technical Panel for Transnational and Distance Education.

Chapter 22
OER and MOOCs in Africa: The AVU Experience
Griff Richards, Athabasca University, Canada and Bakary Diallo, African Virtual University, Nairobi, Kenya

Abstract: Open Education Resources have provided accessible content for learning in Africa. Massive Open Online Courses (MOOCs) have garnered unprecedented attention as a means of delivering courses to tens of thousands of learners. This paper describes the African Virtual

University's (AVU) partnerships and collaborative OER and MOOC strategies for the delivery of high-volume professional development in areas of critical need in Africa. Several examples of projects at the AVU are described as well as recent decisions and technology advancements related to MOOCs and open education. Key challenges are described as well as the overall potential for growth these new forms of educational delivery within Africa.

Griff Richards is a Canadian e-learning researcher and an advocate of open education. Griff received his doctorate in educational technology from Concordia University. Among his many accomplishments, Griff set up British Columbia's online francophone high school and designed distance courses for Thompson Rivers University - Open Learning, Internationally. In addition, he has participated in several European research projects, was Foreign Research Fellow at the Open University of Japan, and has designed open education modules in Africa. Griff Richards is an Honored Professor in the Institute of Social Sciences and Humanities in Kazan, Tatarstan. Griff currently teaches Instructional Design at Athabasca University where he is Fellow of the Technology Enhanced Knowledge Research Institute (TEKRI). He can be contacted at griff@sfu.ca. His portfolio is at: athabascau.academia.edu/GriffRichards.

Bakary Diallo earned a PhD in Educational Administration from the University of Ottawa Canada. He joined the African Virtual University in 2005 and was appointed Rector in 2007. His latest research activities promote the use of ICT in higher educational institutions with a focus on the development and delivery of open education resources. He is fully bilingual in French and English.

PART SEVEN. MOOC and Open Learning Alternatives in Corporate Settings

Chapter 23
Open Learning in the Corporate Setting
Elliot Masie, The Learning CONSORTIUM @ The MASIE Center, USA

Abstract: In this chapter, the meaning of "open" is explored in the context of corporate training. The open concept is controversial in the corporate sector where profits and "return-on-investment" are major goals. However, since 2010, content is increasingly being "harvested" from open and public repositories for use in corporate training. Content and access are two important issues that cut both ways with corporations drawing content from public resources such as TED talks and releasing their own content for use in higher education and by individuals. In terms of TED talks and other forms of shared online video, Masie provides the results of a poll he conducted with chief learning officers as to why the use of such video is popular as well as several recommended best practices related to its use. This is just a start. As Masie notes, based on recent trends, the corporate open movement will likely grow and evolve in the years to come.

Elliott Masie is a leading researcher, analyst, thought leader and futurist in the fields of learning, collaboration, and workforce effectiveness. Elliott is the Chair of The Learning CONSORTIUM, a collaboration of 200 global companies, focused on the future of learning and knowledge. In addition, he is the host of the annual Learning Conference in Orlando, Florida as well as the CEO of The MASIE Center–a think tank focused on the intersection of learning, education, and technology. He is the author of 12 books, including "Big Learning Data." He has presented to over two million professionals around the world. He has served on a wide range of corporate and non-profit boards, including Skidmore College, the CIA University Board, and FIRST Robotics. In addition, he is a Broadway Producer (Kinky Boots & Allegiance). His website is http://www.masie.com.

Chapter 24

ALISON: A New World of Free Certified Learning
Mike Feerick, CEO & Founder, ALISON, Ireland

Abstract: In this chapter, the founder of what many consider the original MOOC in 2007 informs us how learning and upskilling one's skills within the workplace and beyond is about to become far more dynamic, personalised, and, above all, free. ALISON.com provides free online learning through 750 free courses at Certificate and Diploma level to over 5 million learners worldwide. In contrast to MOOCs found at the postsecondary level, ALISON's focus is on workplace knowledge and skills development. This chapter describes the evolution of the site from early ALISON users such as the librarians, the unemployed, the elderly, and newly landed immigrants, to more recent use by multinational corporations for technology and leadership training as well as language education. ALISON's system of assessment is also described as is the potential for free online learning certification.

Mike Feerick is Founder & CEO of ALISON.com, a global leader in free online certified learning. ALISON has five million learners and 500,000 graduates worldwide. Founded in 2007, ALISON is widely recognised as the first MOOC (Massive Open Online Course) provider. Mike is an internationally distinguished social entrepreneur receiving a WISE Award from the Qatar Foundation (2013), an Arthur Guinness Funding Award (2012), and an Ashoka Globaliser Fellowship (2011). He was presented with a Diploma Award from UNESCO (2010) for making access to education and skills training more accessible to all.

Chapter 25
Alternative Models of MOOCs
Ray Schroeder, Vickie Cook, Carrie Levin, and Michele Gribbins, University of Illinois, Springfield

Abstract: The University of Illinois Springfield Center for Online

Learning, Research and Service (COLRS) has been engaged in studying and offering MOOCs in higher education since 2011. COLRS has found a potential in MOOCs as venues for training, professional development, information sharing, and collaboration as well as vehicles for discussions and debates of key public interest topics. Work with professional associations to develop MOOCs is underway across the U.S. as well as in other parts of the world. Additionally, the advent of business and corporate use of MOOCs for training and professional development of employees is providing effective and efficient ways to reach a global employee base. Today's use of MOOCs increasingly hints at the future of education for career fields – a MOOC-enabled future that may help transform traditional higher education.

Ray Schroeder is Associate Vice Chancellor for Online Learning at the University of Illinois Springfield. He is also Director of the Center for Online Leadership and Strategy at the University Continuing and Professional Education Association (UPCEA). Ray has published the popular Online Learning Update and Educational Technology blogs for the past decade. Ray Schroeder was named the inaugural 2010 recipient of the Sloan Consortium's highest Individual award - the A. Frank Mayadas Leadership Award. In addition, he received the 2011 University of Illinois Distinguished Service Award. Finally, Ray Schroeder is an inaugural Sloan Consortium Fellow and the 2012 Innovation Fellow for Digital Learning by the UPCEA. He can be contacted at Schroeder.ray@uis.edu.

Vickie S. Cook is the Director of the Center for Online Learning, Research and Service at the University of Illinois Springfield. She holds a dual appointment as an Associate Research Professor in the Department of Educational Leadership. Her research focus in in leadership in online education. Dr. Cook may be reached at cook.vickie@uis.edu.

Carrie Levin has been working in the field of online learning since 2005. She serves as the Assistant Director for the Center for Online Learning, Research and Service (COLRS) at the University of Illinois Springfield. She has presented numerous workshops and trainings on many aspects of online learning. Carrie has authored and co-authored several proceedings papers and journal articles. She earned her B.F.A. degree in Theatre at UIUC and her Master's in Dance-Movement Therapy/Counseling at Columbia College. In addition to her work with COLRS, Carrie is an adjunct instructor at UIS in the Computer Science department.

Michele Gribbins is an Online Learning and Faculty Development Specialist for the Center for Online Learning, Research & Service at the University of Illinois Springfield. She is also an Adjunct Lecturer for the Department of Management Information Systems. She has presented at many national and international conferences in the areas of online learning and information systems. Her research has been published in the *Journal of Information Technology*, the *Communications of the Association for Information Systems*, *Electronic Markets*, and the *International Journal of Management Theory and Practices*.

PART EIGHT. Future Glimpses and Open Options

Chapter 26.
The Learning Future: Personalised Learning in an Open World
Michael Keppell, University of Southern Queensland, Australia

Abstract: In this chapter, Mike Keppell focuses on the knowledge, skills, and attitudes of learners who need to navigate the 'chaos' of an ambiguous learning landscape. In this learning future, resilient personalised learners

will seek solutions for problems, issues, and challenges on a daily basis as lifelong learners. Personalised learners will need a toolkit encompassing (1) digital literacies, (2) seamless learning, (3) self-regulated learning, (4) learning-oriented assessment, (5) lifelong learning, and (6) flexible learning pathways. This toolkit will enable the learner to tackle the complexities of the learning landscape that is becoming increasingly digital, connected, and ambiguous. This chapter describes each of the six dimensions as well as three levels of progression within each one as a roadmap for lifelong personalised learning.

Mike Keppell is Executive Director, Australian Digital Futures Institute at University of Southern Queensland and Director of the Digital Futures Collaborative Research Network (DF-CRN). He is also Project Director, Regional Universities Network (RUN) Maths and Science Digital Classroom project, and currently leads and manages projects worth over 12 million dollars. Mike has a long professional history in higher education in Australia, Canada, and Hong Kong. His research focuses on digital futures, learning spaces, blended learning, learning-oriented assessment, authentic learning, leadership, and transformative learning using design-based research. He is an avid photographer and adventurer and has summited Mts Kilimanjaro, Kenya and Kinabalu.

Chapter 27.
Peer2peer and Open Pedagogy of MOOCs to Support the Knowledge Commons
Rita Kop, Yorkville University, New Brunswick, Canada and Hélène Fournier, National Research Council Canada

Abstract: Massive Open Online Courses are perfectly positioned to contribute to the Knowledge Commons. MOOCs are on the cusp of formal and informal learning as they are open networked learning events. However, one might argue that not all MOOCS are fully open. In addition,

despite recent shifts toward learner-centered instruction across educational sectors, there is mounting concern that active learning--such as the creation of digital artefacts--is not at the heart of the learning experience of MOOC participants. What is worse, their immense scale forces developers to use data-driven, rather than people-driven and connectivist technologies to advance the learning process. This is a significant problem when developers of learning environments intend to create a place that enriches the commons of openly available information and knowledge to all. The authors will suggest some solutions to the current shortcomings of MOOCs by drawing on the literature related to open, networked learning and MOOCs.

Rita Kop is dean of the Faculty of Education at fully online Yorkville University. She has been a researcher at the National Research Council of Canada and holds a Ph.D. in Adult Continuing Education. Her current research focuses on learning in advanced networked learning environments. Before she joined the NRC, she was an assistant professor at Swansea University in the UK. At Swansea, Rita worked with community groups and universities contributing to community-based and online services for adults in some of the most deprived areas of the UK. Dr. Kop is originally from the Netherlands, where she spent ten years as teacher and head teacher in elementary education. Additional information on Dr. Kop can be found at: http://www.you-learn.org. She can be contacted at rkop@yorkvilleu.ca.

Hélène Fournier has been a Research Officer at the National Research Council Canada's Institute for Information Technology since 2002 and holds a Ph.D. in Educational Psychology from McGill University. The primary focus of her research is in education and technology. She has participated in several research projects focused on the application and evaluation of advanced technologies in the training sector, in distance education, and, more recently, in learner-centered research and development of Connectivist Massive Open Online

Courses (cMOOCs) and Learning and Performance Support Systems. Dr. Fournier has contributed to the advancement of research in the field of distance education, online learning, and adult learning. She has also been engaged in the study of informal learning experiences in the context of cMOOCs. She has published widely in peer reviewed journals and at international conferences.

Chapter 28
MOOCs 2030: A Future for Massive Online Learning
Rebecca Ferguson, The Open University, UK
Mike Sharples, The Open University, UK
Russell Beale, University of Birmingham, UK

Abstract: This chapter looks ahead to the year 2030 and considers the ways in which current visions of massive open online courses may develop into realities. In order to do this, it considers the changes in pedagogy, technology, and the wider environment that will be necessary in order for them to flourish. The chapter argues that, by 2030, the systems that develop from MOOCs will be meeting the needs of societies by educating millions of digital citizens worldwide. These systems will have opened up access to education and be enabling people from all over the world to enjoy the benefits of learning at scale. In order for this to happen, MOOC providers, policy makers, and educators will all need to proceed with this vision in mind. In effect, if MOOCs are to make a difference and truly open up education while enhancing learning, the pedagogies in place by 2030 must take into account entirely new groups of learners as well as vastly new roles that will emerge for educators. Such pedagogical approaches must also utilize innovative approaches to the design of that learning, whether it be MOOCs or some other form of learning delivery at scale.

Rebecca Ferguson is a lecturer at The Open University. Her research is focused on educational futures, learning analytics, MOOCs, augmented learning, and online social learning. Her most recent book is *Augmented Education: Bringing Real and Virtual Learning Together*, which was published by Palgrave in 2014.

Mike Sharples is Professor of Educational Technology in the Institute of Educational Technology at The Open University, UK. He also has a post as Academic Lead for the FutureLearn company. Mike's research involves human-centred design of new technologies and environments for learning. He inaugurated the mLearn conference series and was Founding President of the International Association for Mobile Learning. He is Associate Editor in Chief of *IEEE Transactions on Learning Technologies*. Mike is author of over 300 papers in the areas of educational technology, science education, human-centred design of personal technologies, artificial intelligence, and cognitive science.

Russell Beale is Director of the Human-Computer Interaction Centre in the School of Computer Science at the University of Birmingham, UK, and a Professor of HCI. Russell has been involved with FutureLearn from the beginning, firstly as a critical friend and now research. In addition to his work on pedagogies and interaction design for MOOCs, he has conducted research on user-centred knowledge discovery, intelligent support for browsing, and optimum information presentation in complex situations. His current interests include how users can interact with complex information. He is also exploring ubiquitous, pervasive, and mobile computing as well as how technology impacts and affects our social structures and activities.

Chapter 29
Open Options: Recapping this Book with Eyes on the Future
Thomas H. Reynolds, National University, USA
Thomas C. Reeves, The University of Georgia, USA

Mimi Miyoung Lee, University of Houston, USA
Curtis J. Bonk, Indiana University, USA

Abstract: In Chapter Twenty-Nine, the final chapter of this book, the four editors of this volume offer a recap of the various contributions and ideas embedded in this comprehensive book on MOOCs and Open Education Around the World. As part of these efforts, we provide an overview of the book themes related to MOOCs and OER, including a review of the different ways in which MOOCs are currently being used. There is also a discussion of the unique contributions found in this book and the potential audiences and values to which it serves. Near the end of the chapter, we take a brief look at the future of learning in this increasingly open educational world. We surmise that in this new age of learning there are many "open options" for each of us. In closing, we offer hope that the ideas in this book not only serve the highly inquisitive, informal, and nontraditional learners who are already engaged in some form of open, online, or blended learning (including from MOOCs, OCW, and OER), but also the needs of the educationally disadvantaged, underprivileged, and at-risk learners around the world. Such marginalized learners are in dire need of new skills, competencies, and educational opportunities that can now be provided through MOOCs and open education as well as other forms of learning at a distance that will evolve in the coming decades.

Thomas H. Reynolds is currently a professor of Teacher Education at National University in La Jolla, California where he researches design of online learning environments, standards-based online assessment, and innovations in e-learning. Before coming to National University, he served on faculty at Texas A&M University after earning earned his Ph.D. in Curriculum and Instruction at the University of Wisconsin-Madison. Professor Reynolds has twice served as a Fulbright Scholar—2010 in Colombia where he researched open education resources and 1998 in Peru where he lectured on Web-based learning and technology-enhanced instruction. Present activities and responsibilities include projects in Colombia, coordination of an e-teaching and learning master's degree specialization, and leadership in online quality assurance and online course review and

development for National University. He can be contacted at treynold@nu.edu.

Thomas C. Reeves is Professor Emeritus of Learning, Design, and Technology at The University of Georgia. Professor Reeves has designed and evaluated numerous interactive learning programs and projects. In recognition of these efforts, in 2003 he received the AACE Fellowship Award, in 2010 he was made an ASCILITE Fellow, and in 2013 he received the AECT David H. Jonassen Excellence in Research Award. His books include *Interactive Learning Systems Evaluation* (with John Hedberg), a *Guide to Authentic E-Learning* (with Jan Herrington and Ron Oliver), and *Conducting Educational Design Research* (with Susan McKenney). His research interests include evaluation, authentic tasks for learning, educational design research, and educational technology in developing countries. He can be reached at treeves@uga.edu and his homepage can be found at http://www.evaluateitnow.com/.

Mimi Miyoung Lee is Associate Professor in the Department of Curriculum and Instruction at the University of Houston. She received her Ph.D. in Instructional Systems Technology from Indiana University at Bloomington in 2004. Her research interests include global and multicultural education, theories of identity formation, sociological examination of online communities, issues of representation, and critical ethnography. Mimi has published research on STEM related online teacher education, cross-cultural training research, interactive videoconferencing, opencourseware, and qualitative research. She may be contacted at mlee7@uh.edu.

Curtis J. Bonk is Professor of Instructional Systems Technology at Indiana University and President of CourseShare. Drawing on his background as a corporate controller, CPA, educational psychologist, and instructional technologist, Bonk offers unique insights into the intersection of business, education, psychology, and technology. A well-known authority on emerging technologies for learning, Bonk reflects on his speaking experiences around the world in his popular blog, *TravelinEdMan*. In 2014, he also was named the recipient of the Mildred B. and Charles A. Wedemeyer Award for Outstanding Practitioner in Distance Education. He has authored several widely used technology books, including *The World Is Open*, *Empowering Online Learning*, *The Handbook of Blended Learning*, *Electronic Collaborators*, and, most recently, *Adding Some TEC-VARIETY* which is free as an eBook (http://tec-variety.com/). His homepage contains much free and open material (http://php.indiana.edu/~cjbonk/) and he can be contacted at cjbonk@indiana.edu.

PREFACE

Actions Leading to *MOOCs and Open Education Around the World*

Curtis J. Bonk, Mimi M. Lee, Thomas C. Reeves, and Thomas H. Reynolds

A Half-Century of Opening Up Education

Many readers of this volume may regard Open Education as a relatively new term, but anyone who studied to be a teacher in the early 1970s will recall being assigned to read books with the simple title *Open Education* (cf. Hassett & Weisberg, 1972; Nyquist & Hawes, 1971). Many of the ideas promoted in these books were not unlike some of the concepts and goals associated with contemporary conceptions of "open education." Terms like student–centered, interdisciplinary, project–oriented, individualized development, and the like were pervasive in this earlier literature.

One major difference between the idea of "open education" 50 years ago and the current conceptions of "open education" reflected in the two forewords and 29 chapters found in the eight different parts of this volume is that the former focused primarily on early childhood education. In contrast, today's conception of "open education" is most often, albeit not exclusively, promoted in the context of postsecondary or higher education, or any form of adult learning in general. Another obvious difference is that 50 years ago Web-based technologies did not exist to provide revolutionary ways of opening up educational opportunities for young as well as older learners spanning the globe.

The open education movement in schools of a half-century ago failed miserably; in fact, the classroom walls that were torn down to implement it were soon put back up. A primary reason for this failure was that opponents were able to focus attention on superficial aspects of the movement and distract potential adopters from open education's substantive qualities. As Altwerger, Edelsky, and Flores (1987) explained, "open space was substituted for openness of ideas, [and] learning centers for learning-centeredness. The final irony is that [open

education] was judged a failure even though (because of the distortions) it was never implemented on any broad scale" (pp. 9–10).

One of the main reasons behind our endeavor for this book is that we hope to see today's open education movement escape the fate of so many previous attempts to enhance learning and teaching through innovative educational practices (cf. Haas & Fischman, 2010; Mettler, 2014; Tyack & Cuban, 1997). Massive open online courses (MOOCs), for instance, are presently experiencing more than a little criticism, and though much of it is quite thoughtful, some is the result of MOOCs simply being the most widely publicized component of the open education movement during the past few years (cf. White, 2014; Wildavsky, 2014). While posing questions and concerns about the MOOC movement can be useful, hasty denouncements need to be replaced with extended analyses, global discussions, and thoughtful reports.

In any case, the MOOC phenomenon, once lavishly praised in publications such as the *New York Times* and *The Economist*, has more recently become the subject of critical stories across the popular press. Gais (2014) quotes Ben Wildavsky, director of higher education studies at the Rockefeller Institute of Government in New York, as saying, "If 2012 was the year of the MOOC, it wasn't too long until what some call 'MOOC hype' gave way to 'MOOC hate.'" Similarly, Audrey Watters noted in her widely quoted Hack Education blog that while 2012 was the year of the MOOC (Pappano, 2012), 2013 was the year of the anti-MOOC (Watters, 2013). To address such concerns, we decided to bring together in this book a representative and rigorously edited sample of the ideas and experiences of the scholars and practitioners working on the frontlines of the open education movement.

Anyone conducting a Google Scholar search using the terms "MOOC and education" or "Open Educational Resources" (OERs) will encounter a nearly endless listing of documents, blog posts, and news stories. Clearly, the proliferation of MOOC- and OER-related material argues convincingly for a book-length resource to synthesize the myriad, and still emerging and evolving, perspectives of MOOCs and open education around the world. As part of these efforts, it is vital to document how such new forms of educational delivery provide hope for a brighter future for the disadvantaged and those too often trapped on the less privileged side of the digital divide. At the same time, it is also critical to discuss where they fall short. We trust that this book fulfills such needs, but we recognize that these are volatile topics and additional perspectives will come forth quickly.

Perhaps the most important reason that we collaborated on this edited book is that each of us is committed to the principles of the open education movement. We also share an optimistic perspective about the realization of these ideals. Although the aforementioned open education movement in K–12 schools largely failed shortly after its introduction in the early 1970s, another form of open education, the "open university," was introduced around the same time and has thrived. James (1971) described The Open University of the

United Kingdom as a "new phenomenon," but also acknowledged the inspiration of the open university idea "by developments in the United States, South Africa, Australia, Russia, and other countries" (p. 32). Today, nearly 60 open universities around the world enroll more than 17 million students (Guri-Rosenblit, 2012; Lockwood, 2013; Wikieducator, 2014); in fact, a few of them, Indira Gandhi National Open University in India, Anadolu University in Turkey, and Allama Iqbal Open University in Pakistan, alone have enrollments that reach into the millions.

As scholars and activists, we believe that education provides the essential foundation for enabling everyone on the planet, regardless of their gender, age, beliefs, wealth, or social status, to make the best use of their core human rights to personal happiness and fulfillment as well as the liberty to choose their own learning paths. We concur with Johnstone (2005) who wrote, "Education is a fundamental human right. It is the key to sustainable development and peace and stability within and among countries, and thus an indispensable means for effective participation in the societies and economies of the twenty-first century, which are affected by rapid globalization." We believe that the vast majority of likely readers of this book already share these ideals.

Purpose and Goals

Even though the e-learning opportunities provided by MOOCs and OERs continues to proliferate globally, little attention has been placed on how individual regions and countries are taking advantage of such technology-enabled learning. The possibilities for significant educational change, and perhaps even transformation, in developing and underdeveloped countries has been widely discussed and promoted. Also widely endorsed is the notion that e-learning is providing new educational opportunities for adolescent youth and young adults in the workplace as well as fostering professional development among more established older learners around the planet. The emergence of new forms of blended learning as well as the arrival of MOOCs and other forms of OERs have made e-learning front page news across all continents and societies (Bonk, 2009; Bonk & Graham, 2006).

As new digital forms of informal and formal learning proliferate, however, there is an increasing need to better understand how people in different regions of the world are implementing educational delivery innovations such as MOOCs and OERs. Even more importantly, educators, researchers, politicians, and countless others want to grasp what the outcomes of these initiatives are and how they can be improved. And, when combined with the current tidal wave of e-learning announcements and changes, those fostered by MOOCs and open education have caused institutions and organizations to grapple with issues of accreditation, credentialing, quality standards, innovative assessment, and learner motivation and attrition, among numerous other areas of concern. Each passing

week, it seems that there is a major report or announcement concerning one or more of these topics.

In response to these issues, this book project explores, probes, and documents an array of unique implementations of MOOCs and open education in particular institutions and organizations as well as across regions and nations. We have invited contributions from thoughtful leaders and innovators whose research and practice have helped establish the movement toward opening up education using MOOCs and OERs. Fortunately, the vast majority of these scholars not only quickly agreed, but met our challenging timeline.

Many of the book contributors have been long-standing proponents of the open education movement. Most of them have been experimenting at the outer edges of traditional learning technology. They may have designed and taught a MOOC or perhaps crafted and disseminated one or more highly valuable open educational resources. Others have tested a unique MOOC platform or system, written strategic plans for their institution or organization on MOOCs and open education, or conducted research and evaluation of MOOCs and open education contents. Their stories and insights capture the present state of open education around the world. Hopefully, their ideas will inspire untold others to engage in this movement.

The contributors to this book focus on the various opportunities, as well as the dilemmas, presented in this new age of technology-enabled learning. What are the different delivery formats, interaction possibilities, assessment schemes, and business models? And what are the key controversies or issues that need to be discussed and addressed. In response, the various chapter authors explain an assortment of specific MOOC and open education trends and issues in their respective locales, share key research directions and findings, and provide suggestions and recommendations for the near future. They also detail their personal experiences and stories related to MOOC offerings and open education developments.

While we are aware that two book forewords and 29 chapters cannot offer a full accounting of all the MOOC and open education initiatives currently underway around the planet, we believe that many important goals for this volume were met. Listed below are ten of the key goals that we had in compiling this particular book, *MOOCs and Open Education Around the World*:

Ten Goals

1. Help the reader better understand the range of MOOC initiatives and open education projects currently underway around the planet.
2. Understand how MOOCs and open educational resources are impacting learners in different ways around the world. This goal includes obtaining a better grasp of the potential global impact of MOOCs and open education.
3. Highlight pressing issues and controversies where there presently is passionate debate.

4. Reflect on and plan for near-term possibilities, obstacles, and trends related to MOOCs and open education.
5. Gain insights into emerging trends in e-learning as well as future plans and visions, especially as they relate to MOOCs and informal or self-directed learning.
6. Learn how culture interacts with e-learning and open education across regions of the world.
7. Emotionally connect to the stories, experiences, pilot testing situations, etc., of those who have attempted a MOOC or developed significant open educational resources.
8. Grasp the challenges and barriers facing different organizations and institutions as well as entire countries in implementing MOOCs and other forms of e-learning and open education.
9. Learn from some of the key instructors, trainers, researchers, administrators, government officials, instructional designers, entrepreneurs, consultants, and others involved in the MOOCs and open education movement. We intend for the reader to get a sense of who some of the key players currently are in this space as well as what issues they are attempting to address.
10. Realize that many of the questions, criticisms, possibilities, and opportunities related to MOOCs and open education are global issues. While the contributors to this book represent diverse regions of the world, they have much in common in terms of their concerns, goals, initiatives, challenges, problems, and successes.

We hope that the readers of this book will attain many, if not most, of these goals as well as those that they carry with them. If any seem unfulfilled upon completion, we encourage the reader to contact one of us or one of the other book contributors with his or her questions and concerns as well as his or her own personal stories and insights.

Audiences and Stakeholders

As you will quickly discover upon turning the pages of this book, MOOCs mean different things to different people. You will also read assorted connotations about the meaning and value of open education. In terms of MOOCs, some view them as a vital way to diversify one's student base. For others, the emphasis is on the creation of global learning communities that share ideas, resources, and best practices. Still others view MOOCs as a tool for expanding access to education. Importantly, several of the contributors to this volume insightfully critique aspects of MOOCs, such as the use of the term "open" by MOOC vendors who restrict access to their course content to a set time period and platform and further limit it to those who actually enroll. You will also discover quite disparate views and problems related to assessment and accreditation of MOOCs and open educational contents.

In the midst of the wide array of MOOC and open education arguments and debates, new acronyms are proliferating in this wondrous world of MOOCs. For instance, you might have already read about cMOOCs (testing the theoretical and practical viability of connectivist-styled learning), xMOOCS (highlighting massive quantity of throughput with thousands of students in some cases), pMOOCs (experimenting with problem or project-based learning), BOOCs (big open online courses), MOOD (massive open online discussion) (Watters, 2013), SPOCs (small private online courses), and, most recently, PD-MOOCs (related to professional development for teachers and other professionals) (Davis, 2014). In this book, the reader will also learn about distributed open collaborative courses or DOCCs. Still other forms of MOOCs and MOOC derivatives are now targeting remedial education, advanced placement, and many other crucial niche areas.

Suffice to say, we hope that this book starts a dialogue about how MOOCs and open education might accelerate access to education by those living in poverty or without adequate access to traditional educational resources as well as for those coveting a move up in their careers or starting a new one. The time is ripe for such a conversation since the open education movement will only gain in significance with each passing year. This book might also shift common discussions about MOOCs and open education from technology and information access issues toward learning-related ones. Educators and learning professionals as well as politicians, information technology (IT) managers, and other educational stakeholders need to grasp that, from an educational standpoint, the Web has become a hub for testing, demonstrating, and evaluating new learning tools, formats, and ideas. MOOCs are just the latest instantiation of the trend toward Web-based teaching and learning.

This book can provide fresh ideas and information to university and college instructors, K–12 educators, corporate executives, administrators and IT managers, researchers, trainers, instructional designers, graduate students, and anyone interested in emerging trends in education; especially those related to open education and learning technology. In particular, this book can be valuable to higher education administrators and instructors as well as corporate, government, and military trainers who are interested in making sense of the recent research on MOOCs and open education as well as enhancing their understanding of key issues related to the design of open educational contents and courses. Instructors and instructional designers in higher education settings might find this book handy in special topic courses and seminars. At the same time, university deans and those in provost offices might use one or more chapters, or perhaps even the entire book, for faculty retreats and strategic planning sessions.

We are hopeful that this book will appeal to higher education administrators struggling with issues of where to place valued resources. In fact, IT managers in various educational sectors might use it for long-range planning and forecasting meetings and reports. Training managers in corporations or government agencies

might also take advantage of the stories, ideas, and examples from the book to help justify their open education initiatives and strategic plans. All of these individuals will likely want to take advantage of these trends in a fiscally responsible, efficient, and strategically beneficial way.

A unique synthesis on MOOCs and open education will help administrators and staff from learning and teaching centers on college campuses to train relevant personnel for a wealth of online and open teaching delivery methods and approaches now possible. There are many hesitant, wary, reluctant, and resistant instructors, tutors, and staff on college campuses today as well as in schools and corporate and military environments. This book can provide a starting point from which to design training materials and supports related to MOOCs and open education. The many stories and experiences detailed in this book might also serve to inspire others to engage in a MOOC, either as an instructor or as a learner. Finally, politicians reading or accessing this book will discover that there are countless new possibilities for enhancing the learning of individuals across the lifespan in their respective communities and regions of the world. Many free and open access resources are now available for their citizens (Bonk, 2009). It is time to take advantage of them.

What Happens in Vegas Sometimes Becomes a Book

It is important to point out that the impetus for this book came from a one-day pre-conference symposium titled "MOOCs and Open Education Around the World" that the four of us editors organized before the commencement of E-Learn 2013. For those not familiar with the event or organization, E-Learn is an international conference that occurs each year in October or November and is run by the Association for the Advancement of Computing in Education (AACE). The 2013 pre-conference symposium took place in Las Vegas and attracted over 100 participants as well as two excellent keynote speakers, Paul Kim and George Siemens. Encouraged by the enthusiasm generated at the E-Learn symposium, we decided to undertake editing this volume, which not only includes chapters from both symposium keynote speakers, but also from more than 60 other scholars working at the cutting edge of MOOCs and open education around the world.

The book starts with chapters that look back at the history of open and distance education and offer unique insights and critiques into current trends and events. Some of these opening contributors also discuss the opportunities provided by MOOCs and open education as well as current implementation efforts. Other chapters and sections address teaching issues, instructional design and quality standards, and administrator opportunities as well as dilemmas. Near the end of this volume, several authors pose questions and highlight unique possibilities on the horizon for MOOCs, open education, and related educational innovations. We recommend that you reflect, both individually as well as with your students, colleagues, and work teams, on the pressing questions and concerns

offered in each section of the book. You will also discover a plethora of advice, lessons learned, and interesting future trends illuminated in every chapter.

Across the 29 chapters and eight parts of this book you will find deliberations on credentialing policies, instructional design practices, learner-related issues, administration and management decisions, quality assurance standards, mobile and ubiquitous learning delivery, emerging technology tools for MOOCs (and their viability), and much more. Some chapters and sections will appeal to different audiences. Instructors will likely identify with the contributors who discuss instructional design ideas and offer guidelines related to them. Administrators will find value in the decision making that went into developing particular courses, programs, or special learning content for this more open or free educational world. They will undoubtedly be interested in the results as well.

Proponents of educational trends such as MOOCs and open education continue to face a series of roadblocks and extended criticism, much of it rightfully so, from established as well as newly formed educational institutions and organizations. Many corporate and higher education administrators are ignoring these learning delivery innovations, while others simply want more information. To help clarify such issues, the reader of this book is offered a diverse array of viewpoints—some chapters being authored by academic scholars in the field of educational and instructional technology, whereas others are from founders of companies or non-profit organizations. Still other chapters were written by administrators and managers who have helped lead the way toward innovative program designs and delivery options.

Geographically speaking, the countries represented in this volume include Australia, Canada, Germany, Kenya, India, Ireland, Japan, Malaysia, Indonesia, the Netherlands, New Zealand, the Philippines, South Africa, the United Kingdom, and the United States. For those who question whether 15 countries adequately represent what is happening in the MOOCs and open education space around the planet, we need to point out that the chapter authors discuss innovative projects, unique partnerships, ground-breaking policies, and other collaborative initiatives taking place in dozens of other countries. For instance, there are 18 charter member governments in Africa taking part in the African Virtual University (AVU) and 53 partner institutions across 27 countries. Suffice to say, when combined, the geographic impact of the various chapter contributors to this book is quite immense.

In response to those who are concerned with the impact of MOOCs and open education on underrepresented populations or with diverse learners, we have specifically targeted several prominent contributors who provide data and accounts of what is occurring with less privileged populations or in less developed parts of the world. For instance, in addition to the AVU, mentioned above, readers of this volume will learn about unique mobile learning projects sponsored by the Commonwealth of Learning (COL) as well as a couple of strategically designed MOOCs from the World Bank Institute. Many other chapter contributors have

made concerted efforts to offer educational services and resources to those who would not ordinarily benefit from courses or programs offered by their institution or organization.

Of course, as free and open Web resources and tools for learning become accessible by larger portions of the global population, the locations and affiliations of the authors, organizations, or institutions are increasingly less indicative of where the impact is taking place. As you will soon discover, in fact, those enrolled in or taking advantage of the MOOC, OER, and OpenCourseWare (OCW) offerings that volume authors have taught, designed, or evaluated undoubtedly come from all parts of the globe.

Before we close, we feel compelled to mention that this book is actually our second such collaborative effort. Three of the editors of this book (Bonk, Lee, and Reynolds) organized a similar symposium at the E-Learn conference in 2008, also held in Las Vegas. That symposium was focused on the state of e-learning in Asia, and yielded a special issue of the *International Journal on E-Learning* (Bonk, Lee, & Reynolds, 2009) as well as a print–on-demand book. Reeves (2009), also an editor of this book, served as a discussant at the 2008 symposium and contributed the concluding article of that special issue. Additionally, several authors of that first volume, including Melinda Bandalaria from the University of the Philippines Open University (UPOU), Sanjaya Mishra, now with the COL, and Zoraini Wati Abas, formerly of the Open University of Malaysia (OUM), and now with the Universitas Siswa Bangsa Internasional—The Sampoerna University in Jakarta, Indonesia, also contributed to that earlier symposium and book project. In the coming years, we hope to reconvene the participants of the two symposia we have coordinated, and, in the process, meet many of you at the next such special conference event whether in Las Vegas or some other location on this planet.

Acknowledgments

There are many people to thank for helping to bring a comprehensive book project such as this one to fruition. First, we gladly acknowledge the trust that Gary Marks, Founder and Executive Director of AACE, had in the four of us to allow us to organize the E-Learn 2013 preconference symposium on "MOOCs and Open Education Around the World" that led to this particular book. Gary, one of the most humble and innovative people in the domain of educational technology, has had an enormously positive impact on the field for more than three decades. Thanks to him and all the staff at AACE who are always helpful in making these kinds of events successful.

We also appreciate the varied, genuine, and thoughtful contributions and ideas of the more than 100 scholars from around the planet who assembled in Las Vegas that October for the symposium. We massively learned from interacting

with each of you. Several of these participants have since separately authored papers on MOOCs and open education, which will appear in a special issue of the *International Journal on E-Learning* in early 2015 (Lee, Bonk, Reynolds, & Reeves, in press). Thanks again to Gary Marks and AACE for the opportunity to coordinate that special issue. We have been working on both of these "MOOCs and Open Education" projects—this edited book and the special journal issue—simultaneously, with different material appearing in each one.

Second, we wish to thank the authors of this book. The 29 chapters and two book forewords in this distinctive volume have been penned by some of the foremost scholars and practitioners involved open education today. Given the more than 60 chapter authors or contributors, however, there are too many highly talented individuals to single out here. With each chapter going through several rounds of extended peer review, we got to know all of these people quite well. During the peer review process, it was vital that the communication channels between the four book editors and the respective chapter authors be highly responsive, collaborative, and flexible in order for the *MOOCs and Open Education Around the World* book to be completed in a timely fashion. We feel quite fortunate, indeed, that all the authors were open to our suggested edits, modifying their contributions when it seemed the right thing to do, and sticking to their metaphorical guns when they believed it was warranted. We have enjoyed working with each of them and learning about their MOOC and open education projects, desires, and experiences. They all are fantastic new friends.

We encourage readers to peruse the bio sketches for all the contributors to this volume found at the end of each chapter. We hope that the addition of a picture for each contributor along with their brief bios will help you discover many personal connections both now as you read parts or all of this volume as well as when you might encounter one or more of these contributors at a conference, summit, meeting, or some other situation. As you read the chapters, you will discover that this is a quite impressive group.

Third, we thank Alex Masulis, Daniel Schwartz, and the highly professional team at Routledge. They have provided invaluable guidance and held us to our deadlines firmly, yet kindly.

Lastly, we thank our friends and colleagues from around the world for their informational supports and encouraging comments related to this huge MOOCs and open education project as well as our families (including our animal companions) for sacrificing time with us while we worked on this book.

As we close, the four of us feel quite humbled and immensely fortunate that, through the preconference symposium, special journal issue now in press, and, most importantly, this particular book, we have had a chance to contribute in a small way to what some may eventually call the most significant movement of the 21st century; that is, the genuine opening up of education in its many unique and exciting formats and disguises.

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