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Forward

SCRATCHING THE SEVEN YEAR ITCH: PERHAPS IT'S TIME TO MOOC ON!

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Has It Been Seven Years?

As I start to write this book foreword, I am sad. You see, a few hours ago, I said goodbye to couple of Korean graduate students (husband and wife) who have completed their doctoral studies at Indiana University and are moving to Houston, Texas. It tugged at my heart to see them leave. We reminisced about our initial interactions in early August 2008, some seven years ago. It did not take long to realize that plenty of noteworthy educational events had transpired since that time.

Fortunately, they both majored in instructional technology. The media from just the past several weeks has been ripe with news related to educational technology, including stories about augmented reality goggles (della Cava, 2015), the disbanding of Google+, stunning images from space of the dwarf planet Pluto, an announcement of a MOOC on New Hampshire's Presidential Primary (University of New Hampshire, 2015), and the renaming of a building in the Zhongguancun district of Beijing the "MOOC Times Building" (Talbot, 2015).

Say what? The MOOC Times Building? Apparently, the word MOOC or "massive open online course" is now being equated with all aspects of e-learning and educational technology by many people in China (Reich, 2015). Paralleling this trend, investors are pouring money into e-learning endeavors in China (Talbot, 2015) as well as in the United States (Straumsheim, 2015). According to these reports, investment in this sector is now at an all-time high in both countries as well as many other places around the world.

The numbers are much more impressive in China than in the U.S. In April 2014, for instance, there were 692 companies in China involved in online education such as educational gaming, lecture capture, language learning, exam preparation, mobile learning, and various forms of vocational education. A little over one year later, that figure soared to over 1,000 such companies (Trucano, 2015). Fueling such efforts, the investment in educational technology in China has increased 700 percent during that time. So much attention is being paid to the educational technology and e-learning in that country that Chinese officials did, in fact, rename a prominent building located in their famed technology district after MOOCs. I was awestruck when I had a chance to tour that building a few weeks ago in late June 2015.

Here in America, President Obama has also been interested in the advantages of MOOCs as well as other technology-enhanced forms of learning such as gaming, mobile learning, and blended and fully online forms of learning. Since his election roughly seven years ago, Obama has been a strong proponent of lowering the costs of higher education such as providing free access to a community college education (Davis & Lewin, 2015) as well as championing open ebooks (Bullard, 2015). This commitment is not just a recent phenomenon. An article in *Inside Higher Ed* early on his term (Jaschik, 2009), details Obama's endorsement of a "National Skills University" of high quality free and open content with a mix of high school and community college courses as a means to help young people obtain valuable degrees and credentials (Jaschik, 2009). Step back for a moment and reflect on this--when the president of United States banks much of his educational policy initiatives on free and open education, the learning world is certainly changing.

In light of this changing world of learning in which we find ourselves, the term massive open online courses or MOOCs has entered the worldwide lexicon. Yet, it is much more than that. To be clear, the first official MOOC appeared at about the time that my two students had arrived here in Bloomington, Indiana and Obama was first elected president back in 2008. We now have seven years of experience with this unique and highly debated online delivery mechanism for teaching and learning on a wide scale. And, for some early advocates, it is time to scratch the itch. Many educators who initially fell in love with MOOCs are expressing remorse and wishing for a divorce. Others are just now diving into MOOCs and other forms of online learning but suffering from separation anxiety from their previous bliss with classroom or blended learning models.

It is doubtful that anyone teaching or enrolled in that first MOOC predicted the state of MOOCs here in 2015, for good or for bad. Few were fully aware that they had entered an entirely new way of educational delivery. Given the number of vendors designing MOOC tools or platforms, the myriad news articles and reports, the thousands of instructors with MOOC-like experiences, the emergence of MOOC lists, and the scores of MOOC research studies that now exist (e.g., Christensen, Steinmetz, Alcorn, Bennett, & Woods, 2013; edX, 2014; Hollands & Tirthali, 2014; Williams & Su, 2015), one has to wonder what is next. Just how should I advise my remaining graduate students? Perhaps I should point to the seemingly endless opportunities, challenges, and gaps in the research literature related to MOOCs and open education. They could start a career addressing one of the more problematic or controversial areas.

Wake Up and Smell the Changes

Do MOOCs and other forms of open education finally lead to an educational transformation? I think so. For decades, educators have reminded us that if Socrates, Plato, or Aristotle had been cryogenically frozen for over two millennia and then thawed today, they would still recognize most aspects of an instructional situation. Other critics have similarly had us imagine if Rip Van Winkle had fallen asleep before the Revolutionary War and did not wake up for more than two centuries, he, too, would have little difficulty grasping the teaching and learning processes of most schools and universities that he visited as well as the technologies of choice found there.

MOOCs force us to finally give up such highly cynical views. As you journey through the pages of this book, you will come to realize that such perspectives on education are not just outdated, they

are blatantly wrong. No longer would anyone from Ancient Greece or any of the 13 former British colonies recognize the myriad ways in which teaching and learning occurs. Learning today is not only more open, online, and potentially massive, it is also increasingly blended, flipped, collaborative, global, adventurous, mobile, personalized, digital, video-enhanced, gesture-based, comfortable, flexible, resource rich, self-directed, learner-centered, participatory, hands-on, ubiquitous, game-based, augmented, immersive, and on demand (Bonk, 2009). We are living in the midst of a learning revolution! Suffice to say, listening to a lecture in a walled classroom or having a heated discussion among the groves of Academos are no longer the only learning options available to us.

MOOCs have forced many educators to begin designing more adaptive and personalized learning roads. This might not be apparent at first glance. The sameness of the content for thousands or even tens of thousands of participants in a single MOOC highlights the stark reality that it is difficult to design a course that touches and inspires every learner in a highly authentic and meaningful way. Yet, that is the path to which MOOCs and various other open forms of open education may be leading us. Learning analytics from thousands of learners can inform the instructor about troublesome concepts or points in the course (edX, 2014). At the same time, more qualitative information collected from a MOOC can highlight the study strategies, home life flexibility, and personality traits needed to succeed (Veletsianos, 2015; Veletsianos, Collier, & Schneider, 2015). Such data help researchers and educators better understand how to customize or personalize the learning process. Of course, with the plethora of open educational resources (OER) today, the options and possible learning paths are endless.

The MOOC Case Book

MOOCs have emerged on the educational scene perhaps faster than any previous form of delivering education. As such, there is a serious need to place the stories of those with distinctive MOOC experiences in the limelight for other interested parties to browse, share, discuss, compare, and reflect upon. That is exactly what has occurred with this particular book. Each of these individuals or teams faced unique challenges, and, for the most part, overcame them. They designed or taught MOOCs related to the computational arts, the fundamentals of online education, Semantic Web technologies, energy and the environment, OER, poetry, the foundations of science, statistics, community empowerment, technology, creativity, remedial mathematics, and much more. Clearly, MOOCs and MOOC-like experiences are finding their way into nearly every discipline. Each case and topic area detailed in this book is unique in its design features, objectives, and initial MOOC outcomes. As such, this book is your chance to learn from those who have pushed the frontiers of MOOCs and open education.

When combined, these cases tell a vital story for anyone entering or already working in the area of MOOCs and open education. If you want inspiration to enter this arena, you will find it here. If you want to strengthen a rationale for the use of MOOCs in your enterprise or extend the theoretical underpinnings for your current MOOC-related projects and ideas, you will find that too. If you and your team are seeking instructional design principles for this innovative form of instruction, there are dozens embedded in this particular book awaiting your discovery. In effect, those hoping to learn how to deliver instruction on a massive scale will come upon an array of ideas and best practices to later share, test, and remix.

That is not to say that these authors have surmounted all barriers to MOOC design, delivery, and implementation. Challenges abound. Among the myriad issues you will read about in the coming pages concern common issues of designing interactive materials, copyright, and training tutors and teaching assistants. You will also learn how to find sufficient open educational resources, segment video in an engaging manner, assess participants in a fair and expeditious manner, seed discussion threads and then respond to them in a timely and effective way, form teams across thousands of participants, and address the needs of participants with limited technology access or for whom English is not their primary language. Given all these issues, it is without question that the art and science of massive open online course delivery--while highly linked to what we already know about fully online and blended learning--is continuing to unfold and inform us in often unexpected and yet highly enticing ways.

As is apparent by now, this book, "The MOOC case book: Case studies in MOOC design, development and implementation" stays true to its title. In the 25 chapters of this book, you will encounter much about the design and development of MOOCs as well as issues related to their implementation and later assessment of what has transpired. In each chapter, you will learn practical guidelines unique to MOOCs as well as find confirmation of many best practices that are found in online learning environments on much smaller scales. In each case, you will either be nodding your head in agreement or taking copious notes. Along the way, you will be learning from a wide array of instructional designers, administrators, instructors, and students.

Joseph Rene Corbeil, Maria Elena Corbeil, and Badrul Khan have assembled a group of highly accomplished scholars from universities and other organizations in the United States and Europe. These contributors are to be commended for undertaking significant risks in pushing the boundaries of teaching and learning today through MOOCs. Each chapter in this comprehensive case book is written in a highly engaging and effective style. Equally important, the MOOC casebook is organized in a logical flow that makes the 350+ pages roll by in rapid succession. Those taking the time to seriously digest it all will find that there are just enough doses of theory and research to balance with the many documented MOOC practices and experimentations.

Khan's E-Learning Framework

In an era of boundless change, we need frameworks and models. It is fortunate that this book incorporates one such framework. You will soon discover that "The MOOC Case Book" is nestled in the eight dimensions of Badrul Khan's E-Learning Framework designed nearly two decades ago. More specifically, the contributors address the following dimensions: (1) pedagogical, (2) technological, (3) interface design, (4) evaluation, (5) management, (6) resource support, (7) ethical, and (8) institutional. As such, the chapter authors address the caring and supportive or more humanistic side of learning as well as the highly charged political and administrative side and all points in between. I am personally familiar with this framework due to having written chapters for two of Khan's previous books, Webbased instruction from 1997 (Bonk & Reynolds, 1997) and Flexible learning in an information society from 2007 (Dennen & Bonk, 2007), where he masterfully details this intriguing framework.

Frameworks provide an entry point as well as a reflection point. They structure this gigantic MOOC space. Such structuring is particularly vital since we are in one of most educationally momentous



times in the history of the human race. However, the vast majority of us have been skeptical, timid, and uncertain about the field--especially in regards to quality--at some point since the inception of MOOCs and other forms of open education. Change, especially transformational change, will do that. Models, frameworks, guides, and other structures can provide us with clearer lenses in which to see the possibilities as well as the danger points. They also reduce the tension while helping us grasp the potential of each new technology announcement and advancement. Like Khan, I have developed a couple of these models and frameworks myself (Bonk & Zhang, 2008; Bonk & Khoo, 2014); hence, I appreciate his ability to reconsider the original E-Learning Framework from the 1990s in this new frontier of MOOCs and open education.

It should be noted that there were several key reasons why I read this book with much interest. First of all, my colleagues, Mimi Lee from the University of Houston, Tom Reeves from the University of Georgia, Tom Reynolds from National University, and I had also just completed an edited book as well as a special journal issue on MOOCs and open education (Bonk, Lee, Reeves, & Reynolds, 2015a; Lee, Bonk, Reynolds, & Reeves, 2015). We were also in the midst of designing a website for these projects (http://moocsbook.com/). As a result, I was deeply interested in the approach that the editors took in structuring their book as well as the associated book homepage. Second, as someone with experience designing and teaching a MOOC (Bonk, 2012a, 2012b; see http://events.blackboard.com/open), I wanted to compare the experiences of the MOOC case book authors to that of my own. In the back of my mind, I was seeking to discover if there were any innovative pedagogical ideas that I could mine from this book. Third, as with any book, I wished to ferret out some of the key themes and ideas from the anecdotes in this book. Fourth, I genuinely hoped to learn more about the field of MOOCs and open education. For instance, I wanted to know if others viewed MOOC as viable; and, if so, in what topics areas and with what types of audiences.

Suffice to say, I was not disappointed. This book is brimming with instructional design guidelines, caveats, takeaways, advice, and suggestions as well as many unique and timely pedagogical approaches that I now want to employ in my own teaching. You will soon discover them too.

But are MOOCs the Solution?

We live in an age of vast unevenness. In this highly digital world, there unfortunately remain immense digital divides. In many countries and regions of the world, there are also significant rifts related to gender, age, socioeconomic status, educational level, and so on. To some degree, the educational "haves" and "have nots" continue to exist in every community. MOOCs and MOOC-like derivatives (Bonk, Lee, Reynolds, & Reeves, 2015b) have arisen, at least in part, to assuage some of those differences. Open educational opportunities such as MOOCs can help not only the disadvantaged and underprivileged, but also those who simply yearn for learning opportunities outside of traditional or more formal academic settings. They also assist those who simply want to learn new things. At countless moments in each of our lives, we will be such nontraditional, informal, and self-directed learners. As with many other recent advances in educational technology, MOOCs provide us with greater flexibility and opportunity for such informal and self-selected learning pursuits to occur.

And so as you explore the pages of this book, do not just ponder how MOOCs might provide credentials or badges for completion; instead, think about how they foster attitudinal change toward

those facing serious life or cultural difficulties as well as how MOOCs can lend inspiration to study in a field previously not on one's radar. Reflect on the many ways that open content in a MOOC might address the gaps in one's knowledge. Spend some time contemplating where and how MOOCs and associated educational delivery methods and variations make a difference in the world today and perhaps tomorrow.

MOOCs are not and can never be the solution for all that ails education. They cannot fill in all of the potholes and fissures embedded in the human condition that society looks for education to ameliorate. Nevertheless, MOOCs expand the perspectives with which we now ponder new educational research, announcements, and initiatives. Often a MOOC will address some important issue, trend, or topic today such as rural farming in India (Venkataraman & Kanwar, 2015), global poverty, managing risk for development, sustainability, and climate change (Jagannathan, 2015), thereby lending hope for a better educational world tomorrow.

With new forms of educational delivery like these massive online open courses, it is likely that tens of millions of people have already learned information and gained new skills that would not have been attainable in decades past. This book shares stories about why this has happened, how this happened, and where ideas such as MOOCs may go next. I am sure that you will enjoy these anecdotes as much, if not more, than I did.

The Seven Year Itch of Web-Based Learning

Before embarking on your learning journey, let's reflect back for a moment. Remember my earlier sadness as my two doctoral students from Korea left for Texas? Seven years of study and they were itching to try something else. As I reflect back more than two decades, it seems that each major phase or wave of Web-based education has been susceptible to this same periodic "itch" or shift in focus signaling a need to try something new after seven years of trials and full scale implementations. Will a shift in focus from MOOCs be next?

Itch #1. Many educators became aware of the Web in the mid-1990s and started experimenting with supplemental online learning activities in their classes. Often, they relied on simple uses such as asking their students to explore a new educational website like the "Lesson Plans Page" for K-12 educators (which still exists, http://lessonplanspage.com/) or the "World Lecture Hall" from the University of Texas at Austin which contained an intriguing assembly of college syllabi to browse, share, and learn from.

During this time, Web browsers like Mosaic (later renamed Netscape) skyrocketed in use. It was back on April 4, 1994 when Netscape officially was born and began to help with our every searching need. Like many in academia at that time, my research team and I heavily relied on Netscape as we experimented with blended and then later fully online forms of learning in a variety of classes, including my own. The new field of e-learning was emerging in front of our eyes.

Itch #2. Whether purposeful or not, exactly seven years to the day after Netscape was founded, Charles Vest, then president of MIT, made a bold announcement to offer MIT course materials freely on the Internet (MIT News, 2001). The date was April 4, 2001. What a freaky



historical coincidence! Even though it was a full five months prior to the 9/11 attacks, I remember the day quite well. That night, I updated my vita and then sent it to MIT the following day in hopes of landing the job directing the project. It was apparent to me that Vest was further opening the world of learning, just like Marc Andreessen had done with Netscape. The project was soon called the MIT OpenCourseWare (OCW) initiative. As some may recall, however, by 2001, Netscape had given way to Google and other Web browsers for locating important OCW content.

Following MIT's lead, dozens of other universities quickly jumped on the OCW and OER bandwagon; for example, Yale, Tufts, Johns Hopkins, Rice, Carnegie Mellon, and the University of California at Berkeley in the United States as well as Beijing Normal University in China, Seoul National University in Korea, Waseda University and a consortium of other universities in Japan, and the University of Southern Queensland in Australia to name a few (Carson, 2009; Caswell, Henson, Jensen, & Wiley, 2008). These universities were freely offering their course content and resources for anyone to browse, read, use, and share. And, since that time, hundreds of millions of people have done just that. Keep in mind, however, that there typically was no instructor present behind these open courseware projects. Despite this fact, they became so popular that there soon were conferences and summits on open education and OCW, many of which continue today. In mid-September 2007, for instance, there was even a declaration made in Cape Town, South Africa related to the rights that humans have toward open education. This declaration quickly drew thousands of signatures and much fanfare. You can still sign it today (http://www.capetowndeclaration.org/).

Itch #3. A funny thing took place seven years after the Vest announcement. The various open forms of educational content began to find their way into more open types of teaching or instruction. It was then that my friends from Canada, George Siemens and Stephen Downes, began offering the first official MOOC experience via extended education at the University of Manitoba (Marques, 2013). In addition to the 25 enrolled students who paid a tuition fee, there were more than 2,200 other online students who sat in on the experience and participated for free.

As indicated at the start of this book foreword, much has transpired since that first official MOOC back in 2008. The past seven years have found educators, politicians, and lay people down the street discovering the idea of the MOOC, debating it with friends and colleagues, and perhaps sitting down to read a news article, research report, or a book about it like this one.

The initial excitement and bold predictions about MOOCs and the end of higher education as we know it soon led to much disappointment. In effect, we went from the "Year of the MOOC" back in 2012 (Pappano, 2012) to the year of the anti-MOOC the following year (Watters, 2013). Without a doubt, many critical voices and views remain (Drake, 2014; Laurillard, 2014). Despite these criticisms about retention, plagiarism, course design, learning and performance, accreditation, credentialing, sustainability, and assorted business models, MOOCs are now one of many commonly employed educational delivery modes. Many high school students take preparatory courses for advanced placement examinations via MOOCs. At the same time, as shown in this book, tens of thousands of less proficient learners currently need remedial MOOCs to gear up for college study (Bandi-Rao & Devers, 2015). Countless others enroll in MOOCs to maintain their skill sets or to leap well beyond them. Still others are finding new careers, hobbies, and interests by utilizing MOOCs and open education (Bonk, Lee, Kou, Xu, & Sheu, 2015). Most assuredly, there are many highly pragmatic uses of MOOCs today.

Itch #4? The world of education has been transformed during the past 21 years (1994-2015). We have witnessed the shift in focus from creating and sharing solitary Web pages and portals filled with educational content to unfettered access to open course materials such as OER and OCW from top universities to the ability to sign up for free and open massively online courses or MOOCs from instructors around the world.

Is it time to scratch the itch yet again? According to a July 23, 2015 article in the Washington Post, MIT apparently is perched for another grand announcement related this age of digital learning (Anderson, 2015). The best guess at this point is that it involves the unbundling of courses into smaller modules or units of material. In this way, learning can be made more specific and personalized.

Time to Recap and Briefly Look Ahead

We have gone through these three distinct seven year phases or waves related to Web-based forms of instruction, namely: Phase 1(1994-2000): The creation of Web pages and learning portals; Phase 2 (2001-2007): The emergence of OpencourseWare (OCW) and open educational resources (OER); and Phase 3 (2008-2014): The age of massive open online courses (MOOCs) and MOOC-like derivatives and options. These three waves arrived in rapid succession. This particular case book takes us through the core of the third wave and leads us to several possible visions of the fourth.

Now think about what may transpire during the next seven years during fourth wave that we are just now entering into: Phase 4 (2015-2021): The age of the modularization, personalization, and mass customization of learning. What will schools and universities look like if much of the content was smaller in scale like a module than a full semester course? What will it mean if these modules are linked to reliable and valid online assessments that enable learners to provide certifiable evidence of their competencies? Just how personalized and individualized can education really become? Given the new age of more personalized learning that seems upon us, is it time for me to adjust the advice that I give my master's and doctoral students as they graduate and find positions elsewhere? Or should I tell them to just sit back and watch what is happening in Beijing, Boston, Bangalore, and elsewhere and follow the lead?

I think I will tell them that it is such modularization and personalization of learning that is highly likely to propel us forward for at least the next seven years and that they should strive to catch the wave. Of course, there will be much discussion and debate about how to accomplish this feat. Despite the controversies that they will undoubtedly encounter, with sufficient planning and determination or grit, they can play a significant role in it. So can each of you.

Perhaps on April 4, 2022 we will all be waiting with baited breath for the next such announcement or what we may call fifth wave of Web-based education. It may be at that time that someone will rightfully label this "The Learning Century." I've made a note in my calendar for that not too distant date. Have you?



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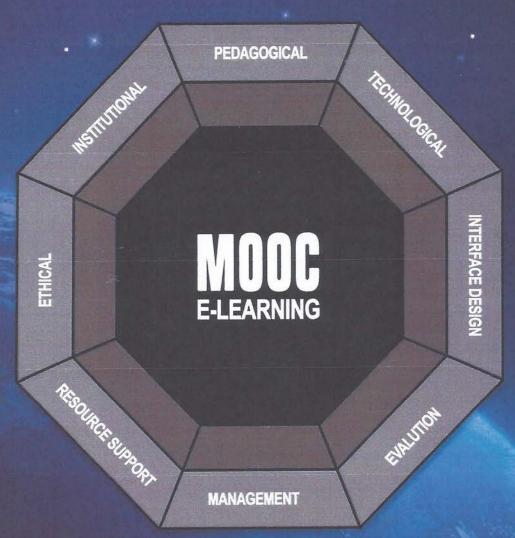
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