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OVERVIEW

Will Massive Online Open Courses, or MOOCs as they are more commonly referred to, be the category killers of higher education as we know it or will they fade into the sunset as yet another over-hyped digital fad? In the commercial sense, a category killer is a product or service with a uniquely viable competitive advantage that those in competition find it nearly impossible to match such that they can still operate successfully in that same business (Spector, 2005). Successful category killers like Australia’s Bunnings chain are a bricks-and-mortar example of how a well-conceived commercial system can effectively change life as we know it, in this case, ushering in the demise of the corner hardware store. But like the adage that one size does not fit all, not all category killers live up to their initial lofty expectations (Merrilees & Miller, 1997).

Take the international Borders bookstore chain which burned brightly for a while, compelling closures of minor independent book outlets in its transient wake, only to implode itself and vanish. One could speculate that their 2011 demise coincided with the public’s burgeoning love affair with the novelty of eBooks but Magee (2011) offers another theory: Borders too often attracted customers who would browse books leisurely seated within in-store cafes rather than purchase them. As a category killer it had fallen into the trap of becoming a theme park in ambience instead of an environment that would stimulate the active buying of products. This disengagement is akin to the observation of low completion rates in the recent crop of MOOCs with estimates of less than 10 percent of students even finishing online programmes (LeBar, 2014).

However, LeBar (2014) comments that failure to complete a MOOC is not necessarily a bad thing, suggesting that mere exposure to organised knowledge could motivate the casual user onto further learning elsewhere. Bill Gates and Mark Zuckerberg may have both dropped out of Harvard and then changed the world with their innovations but the vast majority who actually graduated from that esteemed university probably also achieved a degree of less-lofty success in life. To quote the Roman historian, Plutarch: “The mind is not a vessel to be filled but a fire to be kindled.” The salient question here is whether or not MOOCs can light that flame.

MOOCs are poised to enter the revisionist phase of their premature evolution. The initial wow factor that heralded their appearance is beginning to subside and a new period of critical reflection is emerging. And that’s critical from a distinctly pessimistic vantage. Some of this censure would appear to be in the form of a cultural backlash. Cambridge University academic Mary Beard was quoted by Carter (2014) as warning of MOOCs becoming a learning technology that could create new divisions in society.
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The less-than-egalitarian scenario depicted is that of a future where the ‘privileged few’ can pay for face-to-face higher education laced with private live consultations, presumably at a premium rate, while the rank-and-file without the cash can only afford the screen-only MOOC equivalent. Princeton academic and former MOOC acolyte Mitch Duneier has also joined the ranks of dissenters in this regard by ceasing to teach in online classes due to fears that these are being used as an excuse by government to reduce funding to US state universities (Parry, 2013).

In a New Yorker article, provocatively entitled, ‘Will MOOCs be flukes?’, Konnikova (2014) cites data in Howland and Moore (2002) to advance the notion that students who do well in MOOC environments are arguably those who do not actually need them. Such online adopters of these still novel pedagogic systems are highly motivated, goal-driven, self-reliant individuals who would probably take the initiative to succeed in many other challenging forums, not just those of the MOOC variety.

If MOOCs are at present a platform where achievement correlates with academic success elsewhere, as Konnikova (2014) also suggests, then their originally touted role as a tool to foster open education to all is questionable. MOOCs, it would seem, are becoming a catalyst for self-actualization in those who have the demonstrated ability for scholarship per se. Maslow (1943) interpreted the higher level need for self-actualization as the quest to achieve self-fulfilment through becoming the best that one can potentially be given the presence of latent talent. MOOCs can facilitate this but so can an old-fashioned public library. However, the assessment hurdles in a MOOC environment could improve on the latter for those who are driven, since these could be subconsciously construed as aspects of gamification (Kapp, 2012).

Another way of looking at equity issues in MOOC usage is through the lens of sociology with the concept of the Matthew effect or accumulated advantage (Rigney, 2010). The aphorism that often describes this idea in a nutshell is, ‘The rich get richer and the poor get poorer.’ In the case of MOOCs this might be pivoted in part to the smart getting smarter. Those that are not in this category would still be idling, so to speak. Another applicable maxim here is the familiar Marxist slogan, “From each according to his ability, to each according to his need” (Deutsch, 1975). Those with the ability to excel academically should be able to also satisfy their need for self-actualization. MOOCs may offer one avenue to make this so but for others it may be the proverbial realisation that there is no royal road to learning.

Will MOOCs ultimately automate the transference of wisdom or eventually fall by the wayside as yet another pedagogic folly? The chapters in this volume seek to raise the level of debate on this subject and in so doing inform measured reflection on what is turning into a controversial issue in higher education policy. We live in interesting times.

OBJECTIVES OF THE BOOK

The overall objective of this book is to follow on from the previous IGI books published under the stewardship of Elspeth McKay in 2007 and 2013; this time to provide a useful handbook on MOOCs adoption. Its main purpose is to provide an insight into the emerging phenomenon as a design manual for the novice MOOCs designer. There are endless social interaction lists of people engaging in connected discussions through blogging type tools that pay scant attention to the need for finding new ways to improve our ePedagogical strategies. Therefore the chapters in this book are devised to focus interest on best practices in MOOCs development and practice that are equally applicable in both the business
training and education sectors. In so doing, they will bring forward the need for traditional instructional design principles, which involve online interactivity that will succeed in the business arena, in a language that is familiar to teaching and learning institutions in schools and higher education.

TARGET AUDIENCE

Industry training developers, corporate trainers, courseware designers, government sector specialists, infrastructure policy makers, educational technology practitioners (school teachers, higher education sector academics), post-graduate students.

SCHOLARLY VALUE AND CONTRIBUTION

The general mission of the book is to explore current thinking on MOOCs as a learning environment from a diverse range of perspectives drawn from the theoretical, behavioural, and philosophical areas of human endeavour. MOOCs are seen in some quarters of higher education as being a threat to traditional styles of pedagogy, and the validity of this state of fear is something that will be addressed in the proposed text. In this regard, the time-honoured model of the university lecture is seen by some as being a potential casualty of the rise of MOOCs. It is hoped that this anthology will compare and contrast the lecture versus MOOC debate with chapters based on rigorous argument derived from evidence-based practice. As such, it will provide a range of positive outcomes for linking information management techniques that utilize the social networking power of online courseware development, to exploit the educational benefits of Web-mediated learning in computer supported collaborative learning (CSCL) environments. The global nature of the anticipated authorship and the expected cultural sensitivity factors will promote awareness for improvements in social context quality for online instructional practices.

Contributions

This book is organised into 14 chapters, which fall into four main themes, including: Policy Issues in MOOCs Design; Social Networking and Collaborative Learning; and the ePedagogy and Interactive MOOCs and Rich Internet Applications and Educational Practice of MOOCs.

SECTION 1: POLICY ISSUES IN MOOCs DESIGN

Notwithstanding the current rush towards implementing MOOCs within the general community as a ubiquitous means to access instructional programmes for anybody who wants to learn something new; the means by which this enhanced access to ‘life-long-learning’ transpires remains embryonic. There is growing concern from courseware designers for the legal issues that surround MOOC adoption to be sorted out. Anxiety is expressed by librarians as they try to keep pace with the flood of teaching and learning resources in their care per se (Butler, 2014). Libraries play a significant role in when in collaboration with their all their stakeholders to ensure these digital resources offer fair use while protecting the authorship’s licensing arrangements. While MOOCs are still thought to be in their infancy – some
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courseware designers prefer to adopt a wait and see approach. Yet taking an purist information systems (IS) practitioner’s view of the rapid rise of the MOOC phenomenon, it is easy to explain that following the advent of the Web 2.0 technologies and the increased mobile connectivity throughout the world, MOOCs have emerged through digital-osmosis. Concerns over the unbridled sharing of information results various worrying aspects, such as: exploitation of the user as the ‘product,’ poor quality control/ review, copyright, weak protection for intellectual property, and the propensity for overhype (Grainger, 2013). The authorship of this book provide us with a broad perspective on dealing with such policy issues.

Chapter 1, Mining a MOOC: What Our MOOC Taught Us About Professional Learning, Teaching, and Assessment. This opening chapter discusses the effects of the digital technologies on courseware development to highlight the necessity for implementing ‘change management’ practices within a MOOC courseware developer team. The authors examine the nature of teaching within the MOOC environment, the process of learning, the quality of assessment, and judgments about the MOOC’s performance. The authors argue that MOOCs have a distinctive and under-exploited teaching power which derives from the combined ‘teaching’ efforts of a course team, a digital platform that organises learning and provides feedback to learners, and the peer teaching capabilities of an experienced group of participants. The chapter concludes is that much of the considerable potential of MOOCs in professional learning is yet to be tapped.

Chapter 2, Quality Assurance for Massive Open Access Online Courses: Building on the Old to Create Something New. This chapter provides commentary on policy issues in MOOCs design, through the topic of ‘quality issues (critical comparison: contrasting old with new). As such, the authors explore the ability of an institutional quality assurance framework to evaluate the University of Tasmania’s first MOOC, Understanding Dementia. They say there are many components of a MOOC that are similar to traditional courses and, thus, many aspects of quality assurance frameworks currently in use are directly applicable. These authors also maintain that their Quality Assurance Framework provides an underlying model for developing a business model.

Chapter 3, Professional Learning Through MOOCs? A Transdisciplinary Framework for Building Knowledge, Inquiry, and Expertise. The primary aim of this chapter is to present us with current debate. The authors uncover MOOCs discourse that is framed by a desire for higher education to provide professional learning, with the increasing trend for transdisciplinary approaches in the design and development of networked learning. The authors turn to the learning sciences, pedagogies in higher education, epistemologies around ways of being and becoming, and innovations with educational technologies; they suggest that strategies may be required in the future to enhance design, facilitation and learning outcomes through MOOCs.

Chapter 4, MOOCs and the Art Studio: A Catalyst for Innovation and Change in eLearning Development and Studio Pedagogies. Interest in collaborative work space has given way to the growing desire to include social networking within the corporate sector. No longer can we ignore the invasion of social media. Take any classroom these days, students usually have multiple devices with them, like: smartphones, tablets and iPads. Yet when classroom-teachers are trying their best to advocate for improved instructional outcomes, there is a new elephant in the room. Because the students’ want to remain connected to their peers wherever they go, there is continual information circulating to distract the students’ attention. Some might say that we have totally lost all control. Until the advent of Web 2.0, the flow of our information was largely through a broadcast model of a ‘one-to-many’ media such as newspapers, television, books, magazines, etc. (Poore, 2013). Until recent times, the information flow in our classrooms was usually one-way: from teacher-to-student, with group-work providing interactive relationships
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between the students present in the classroom. Poore (2013) explains that at home our students would only encounter traditional (communications) media, supported by slow response mechanisms (such as the letters-to-the-editor columns in newspapers). This snail-paced feedback channel meant there was long turnaround times; whereby the information conveyed in these letters was out of date by the time it was published. Social media tools, however, are challenging our instructional paradigms because they are formed around the idea of ‘networked’ media allowing for instantaneous and simultaneous commentary on, and the reaction to, material that is posted on the Internet in a process of ‘many-to-many’ communication, as described by Poore (2013). This is the elephant in the room. Therefore the challenge for the MOOC designer, is to incorporate this important shift in our day-to-day communications, from the ‘one-to-many’ approach to implement instructional strategies that incorporate the best features of the ‘many-to-many’ networked media or ePedagogy models that achieve quality instructional outcomes.

SECTION 2: SOCIAL NETWORKING AND COLLABORATIVE LEARNING

Chapter 5, Internationalising Social Work Education Using Massive Open Online Courses. This chapter presents a case study of educational practice in the design and delivery of a community work course in a blended delivery mode in Australia and India and via a MOOC. It is revealed that contemporary educational technologies can facilitate quality instructional experiences. The authors say that increased flexibility in course offerings provides students with greater choice to engage in a range of quality educational experiences that are locally and globally contextualized.

SECTION 3: ePEDAGOGY AND INTERACTIVE MOOCs

As described earlier in McKay (2013) the content and quality of ePedagogies need to be designed with the utmost consideration for effective learning/training. To achieve this, it is useful to think that the ‘e’ in eLearning refers to how an online course is digitised, while the ‘learning’ refers to what the course content involves and the instructional strategies (ePedagogies) required to achieve the expected learning outcomes. However, David A Grier has said more recently in his Keynote Speech for the IEEE IC3e 2014 conference, held in Melbourne, Australia, that the ‘e’ in eLearning is best described as ‘evolving.’ Therefore the evolving nature of the current MOOC environment aligns with the Grier point of view. One of the digital-blessings derived from the Web 2.0 technologies is the fact that interactivity is part-and-parcel of ePedagogy. Consequently, one of the MOOCs criticisms has been “that they are essentially pre-packaged courses blasted out in firehose-style to worldwide audiences” (McKendrick, 2014). Notwithstanding this belief, there is an upgraded version of the MOOC platform that is emerging to link online presentations with more interactive learning. The lead for this approach is the partnership between 16 leading universities as they seek to elevate MOOC learning to a more real-time, collaborative experience. The next two chapters reflect this approach as they tell us how they have gone about integrating HCI strategies into their ePedagogies to include: solutions through their classroom use of multi-media and integrating interactivity into their asynchronous strategies.
Chapter 6, *Learning Theories: ePedagogical Strategies for Massive Open Online Courses (MOOCs) in Higher Education*. This chapter maintains that courseware design for MOOCs must commence with an investigation of the various learning theories to inform and inspire their instructional strategies. The valuable contribution of this chapter is to provide the novice courseware designer with a comprehensive review of the appropriate literature.

Chapter 7, *Beyond the Phenomenon: Assessment in Massive Open Online Courses (MOOCs)*. This chapter deals with the criticism concerning the low completion rates within the MOOC instructional platform. The author connects learner interaction as being central to knowledge creation and a key component of measuring learning outcomes in a MOOC environment.

**SECTION 4: RICH INTERNET APPLICATIONS AND EDUCATIONAL PRACTICE OF MOOCs**

To introduce this last section, it is necessary to explain as we did in McKay (2013) that the term RIA (rich Internet applications) is rather sophisticated or high-end IS computing environment in simple language for the uninitiated reader of this educational technology book. The current range of ICT tools provide a range of powerful features that include: easier access, updating capability, scheduling of tasks, and flexible environments for both learning facilitators (teachers and corporate trainers) and their students. There are three ICT elements that represent an RIA that are necessary to drive a successful ePedagogy. These RIA elements include: rich client technology, server technology, and development tools. The so-called rich client technology (the Flash player is a good example) provides all the hidden operating benefits of the Web by keeping costs to a minimum (automatic compression and loading of components on demand). In addition there is: client-side scripting, high performance connectivity, real-time server communication. Server technology provides the markup languages to connect to the rich client technologies; for example Web database language tools. Development tools offer an environment that provides the ability to create the various pieces of an application - from user interfaces to server-side logic. Staffing this type of ICT production event requires a mixture of IT professionals: an application architect to integrate the ICT tools into an existing environment, a multi-media expert to develop the interactive graphical user interface and communications service with the application server, and a Web designer in the initial stages of a system’s development project to consult on the user interface specifications, and act as the conduit between the architect and multimedia practitioner. A successful RIA can offer a range of benefits that include: distributed, server-based internet applications that extend the interactive capabilities of desktop applications. As such, they should enhance the user’s interactivity and manipulation of data, rather than behave as fancy graphical page-turners. They should provide the user with a real-time status check mechanism whenever background processing is underway. This way, informed users can understand and stay oriented during a lengthy activity. Finally, because a RIA can store client-side data, this allows customization of their interaction during a system processing cycle. The following seven chapters all have features of RIA applicable to MOOC courseware design.

Chapter 8: *What is Best for the Learner? Are MOOCs the Answer?* Set in the USA, this chapter says that what is best for the learner is determined by multiple factors. During the discussion the authors examine each of the factors identified that impact upon what is best for the learner to achieve the instructional outcomes. These factors involve: accessibility; cost to the learner; quality of instructional design; learner performance; and acquiring on-line collaboration methods and resources.
Chapter 9, *Deceptive Promises: The Meaning of MOOCs-Hype for Higher Education*. This invited chapter provides a commentary drawing on the literature concentrating upon the main promises and expectations associated with MOOCs in higher education.

Chapter 10, *Redefining the Classroom: Integration of Open and Classroom Learning in Higher Education*. This chapter explains how the top universities of the world have collaborated to develop MOOCs that are made available to public either free of charge or at a nominal cost. As such these courseware developers are mainly supported by MOOC start-up applications such as Coursera, Udacity, and EdX. These authors qualify that these MOOCs are mostly created by universities in United States and in Europe.

Chapter 11, *MOOCs: Evolution and Revolution*. This chapter discusses tools and technologies that can support the development of a MOOC, and concludes with commentary about the potential for such a development to continue into mainstream postsecondary education.

Chapter 12, *The Evolution of Online Learning and Related Tools and Techniques toward MOOCs*. This chapter presents the authors’ perspectives as they focus on their own anecdotal evolution from traditional classroom teaching to their infusion of distance and online learning and, most recently, designing and teaching in a MOOC setting. In examining whether the MOOC is more of an evolution or a revolution in learning, they explore some of the questions that have emerged about MOOCs including what distinguishes this model from other online offerings, the characteristics of learners who succeed in this environment, and the debates regarding best practices.

Chapter 13, *MOOCs in Initial Teacher Training: Perspectives and Learning-Teaching Needs*. This chapter presents a course as a supplementary higher educational resource that satisfies knowledge the current curriculum does not encompass. Furthermore, this work contributes to both initial and continuing teacher training. For this reason, understanding students’ perspectives on MOOCs is essential. The results indicate that a large part of the sample confirm that they do not know anything about MOOCs.

Chapter 14, *Challenges about MOOCs in Teacher Training: Differences between On-Site and Open University Students*. This final book chapter explains that before preparing and implementing a MOOC it is necessary to explore whether teachers understand their eResources and the associated potential benefits. The authors describe how they tested this approach to evaluate the current state of affairs, taking sample students from an on-site university and an open university.

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**REFERENCES**


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