Chapter  7
Informal and Self-Directed Learning in the Age of Massive Open Online Courses (MOOCs)

Lin Lin  
*University of North Texas, USA*

Patricia Cranton  
*University of New Brunswick, Canada*

ABSTRACT

One of the consequences of the new digital age is the development of opportunities for individuals to learn in a variety of new ways. Among these opportunities are Massive Open Online Courses (MOOCs) where short, free, non-credit courses are available to anyone who wants to learn. In this chapter, the authors examine the phenomenon of MOOCs in light of informal learning and self-directed leaning conceptual frameworks. They illustrate this phenomenon with the case of Jasta, who took a MOOC course in statistics along with 950 other learners. The authors then go on to discuss the issues, controversies, and problems of MOOCs for informal and self-directed learning. They propose a series of questions that need to be addressed as we come to understand the role of MOOCs in educational systems.

INTRODUCTION

One of the challenges of today’s informal learning is the information explosion and the limited time that one has to learn what one wants to learn. Ericsson, Krampe and Tesch-Romer (1993) tell us that it takes more than 10 years of deliberate practice in order to become an expert on a domain of knowledge or skill. With the exponentially accumulating and changing information, how can one be self-directed enough to learn something useful in an informal learning environment? How does one focus? How does one make the selection or judgment on what is useful information? For many, the current Massive Open Online Courses (MOOCs) are an important channel for self-directed and informal learning. The purpose of this chapter is to examine the benefits and challenges of MOOCs using informal and self-directed learning as theoretical frameworks.

MOOCs refer to online courses aimed at unlimited participation and open access over
the Internet (Siemens, 2012). They are usually short, free, and offer no credits to the participating learners. The roots of MOOCs can be traced to distance or online education as well as open education movement. Yet, several new ventures in 2012 turned massive open online courses into a new wave (Pappano, 2012). In 2012, new ventures such as Udacity, Coursera, and edX launched more than 200 online college courses and offered them for free on the Internet. These new courses are called Massive Open Online Courses, or MOOCs (Cormier, 2008, 2010; Siemens, 2012). Among them, edX was launched by Harvard University and MIT as a non-profit organization and was later joined by the University of Texas, the University of California, and others. Coursera was launched by 33 colleges jointly as a for-profit organization featuring content from Duke, Penn State, Princeton, Stanford, Yale and many others. Udacity, another for-profit MOOCs organization, was co-founded by Stanford’s Professor Sebastian Thrun (Siemens, 2012).

Most of the current MOOCs are designed and offered for free by university professors from Ivy League schools. MOOCs usually focus on popular academic topics including biology, business, chemistry, computer science, economics, finance, electronics, engineering, food and nutrition, history, humanities, law, literature, math, medicine, music, philosophy, physics, science, statistics and more. At the time of this writing, edX (https://www.edx.org/) claims to offer over 150 courses in over 20 areas, have over 400 faculty and staff teaching these courses, and have over 10,000 learners who have earned certificates through edX. Coursera (https://www.coursera.org/) is hosting over 600 courses, with courses taught in 14 different languages, and partners with over 100 higher education institutions globally. Udacity (https://www.udacity.com/) claims that their courses are built by tech leaders like Google and AT&T using a project-based approach. For a fee, a learner can receive support, mentoring, and encouragement from “coaches,” and can receive certificates for their completed learning. In fact, a learner can obtain a master’s degree in computer science from Georgia Tech University if he or she is determined enough to complete all the courses offered for the track through Udacity. Clearly, there has been a large effort invested in merging the informal and self-directed learning environments of MOOCs with the traditional and official higher education institutions.

For someone who is looking for knowledge in a specific area, MOOCs seem to be perfect places to go because one does not need to surf and select from a boundless sea of information on the Internet in order to obtain expert knowledge and skills. As a result, the popularity of MOOCs has been discussed as a panacea for self-directed learners and for quality learning in an informal environment (Yang, 2013). At the same time, MOOCs have also been touted as a possible doomsday machine of sorts, showing up on the doorstep of the traditional higher education systems (Olds, 2013; Ripley, 2012). For who would be willing to pay $60,000 a year for a college education, if one could get the same knowledge in a compressed amount of time, for free? However, just as in the case of many other new technological advancements and innovations, MOOCs are neither a panacea nor do they spell doom. Rather, they provide benefits and challenges for learners as well as learning institutions. In the following section, we discuss self-directed and informal learning as theoretical frameworks. We then use the frameworks to examine learners’ experiences in MOOCs.

**Self-Directed Learning**

Self-directed learning was popularized by Malcom Knowles in the 1970s and 1980s. In his short book called, simply, *Self-Directed Learning* (Knowles, 1975), he proposed a model in which adults make decisions about what they wanted to learn, how they wanted to learn, the methods and resources they would use to learn, and how they would assess their own learning. He continued to expand this