ABSTRACT

Professional development is an individual’s lifelong learning process. Accessing knowledge in an unfamiliar domain (however necessary for professional development) can be limited within traditional higher education and training settings because addressing immediate needs is expensive and time consuming. Active learners often seek new channels of information in order to fulfill learning needs. One example is the Massive Open Online Course (MOOC). Even though many research studies have emphasized the importance of understanding how technology and digital content lead to changes in the learning context, particularly with respect to informal learning and communities of practice (CoP), there is a notable gap about this issue in the professional development area. This book chapter aims to address this research void by exploring how emergent learning platforms are equipped with new technologies and digital content that may benefit modern learning environments in regards to professional development, such as informal learning in virtual CoPs.
INTRODUCTION

Professional development is viewed as an individual’s lifelong learning process. Learning needs are defined based on personal learning gaps and career goals. As technology changes and work practice standards are renewed, professionals need to keep their knowledge and skills updated. For this, professionals continue to gain new knowledge and skills formally or informally through daily work practices and interactions in a community of practice and build a formal record of individuals’ certificates, credits, and credentials. This learning process is lifelong journey, called continuing professional development. Accessing knowledge in a relatively unfamiliar domain (however necessary for professional development) can be limited and difficult in traditional higher education and training settings because they are expensive and time consuming for addressing their immediate needs for practice. Active learners often seek new channels of information in order to fulfill learning needs. Through technological developments and the emergence of social network service platforms, an alternative learning phenomena has been reported, combining online communities of practice and learner-driven informal learning processes (Cain & Policastro, 2011; Park, Heo, & Lee, 2011; Pimmer, Linxen, & Gröhbiel, 2012; Stewart, Sidebotham, & Davis, 2012; Waldron, 2009).

Oftentimes, the acquisition of knowledge for professional development requires structural instructions on account of the sheer volume and complexity of the learning materials. This situation is a paradoxical one, as participants in the professional online community tend to have innovative online curriculum options. One example is the Massive Open Online Course (MOOC). Although such emergent learning phenomena underscore the importance of understanding how technology and open accessibility to digital content lead to changes in the learning context, particularly with respect to informal learning and communities of practice (CoP), there is a notable gap about this issue in the professional development literature.

In order to understand the process of professional development using MOOCs in a CoP context, this chapter elaborates on concepts and ideas by answering the following questions: (1) what is the current understanding of the literature on informal learning, communities of practice, and MOOCs and its relevance to professional development, (2) what are the factors to be considered to best utilize MOOCs in professional development practices in multiple levels of learning environments, (3) how are different case studies illuminating the effective use of MOOCs within various online CoPs as a learner-driven informal learning tool or as a process to accelerate their professional development practices and outcomes, and (4) what are the implications of the findings from the literature and practices and suggestions for the effective application of the MOOCs as a professional development strategy?

UNDERLYING COMPONENTS OF PROFESSIONAL DEVELOPMENT IN A DIGITAL CONTEXT

Informal Learning

Informal learning is defined as a form of learning which occurs incidentally, on an as-needed basis, and is driven by a particular learner without a formal structured classroom setting (Callanan, Cervantes, & Loomis, 2011; Cook & Smith, 2004; Marsick, Volpe, & Watkins, 1999; Nisbet, Lincoln, & Dunn, 2013; Noe, Tews, & Marand, 2013; Straub, 2009). The study by Marsick et al. (1999) revealed the characteristics of informal learning as a process of experience and action, feedback seeking, and reflection, which is