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LEARNING IN MODERN VIRTUAL ENVIRONMENTS: THE CASE OF MASSIVE OPEN ONLINE COURSES (MOOC)

Abstract

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Abstract

Virtual environments (VEs) have gained noteworthy popularity in our societies and contribute to significant changes in the way in which we live, work, and learn. The literature on virtuality recognizes that VEs – be they virtual social networks, virtual teams, etc. – are known for their unique characteristics: e.g. geographical and temporal dispersion, computer mediation, global character and increased member heterogeneity, among others. These characteristics exert noteworthy influence on how individuals perform (e.g. Nunamaker Jr et al. 2009), express their creativity (e.g. Chamakiotis et al. 2013) and learn (e.g. Schaefer and Erskine 2012). In fact, over the last decade or so, there has been an overwhelming, cross-disciplinary interest in the topic of virtual teams from the fields of information systems, management and engineering. What, however, this literature has neglected to consider is a recent, yet increasingly popular, type of VE in which individuals from across the world come together virtually to enhance their knowledge around a chosen topic by enrolling in, what is known as, Massive Open Online Courses (MOOCs). Enabled by virtuality and information and communication technologies (ICTs), MOOCs provide unparalleled opportunities for learning, breaking geo-temporal boundaries and allowing learners to capitalize on the strengths of a particular university offering a MOOC in an area of expertise that would otherwise be inaccessible. Adding to these is the advantage of flexibility in terms of the learning format and that of being able to learn at low or no cost, which is not the case with traditional or other online learning environments (Pappano 2012).

However, we ask, is this without problems or does is create challenges for both educators and learners? Our rationale for this study is that despite the popularity of these VEs, it has been posited that a surprisingly large number of individuals drop out of MOOCs, failing to complete them (e.g. Pursel et al. 2016). Thus, a number of interesting, unexplored questions emerge. For example, how is learning performed in a VE in which learners come together with 'online strangers' to collectively and individually enhance their learning on a particular topic? How does curiosity – which is what might have driven those individuals to embark on a MOOC in the first place – influence learning in VEs? How can this curiosity be sustained throughout the duration of a MOOC? And what is the role played by the leader, instructor, or facilitator for learners' engagement in these environments?

Here, we are interested in shedding light on these questions by focusing on a specific MOOC on 'Creativity, Innovation and Change' organized and offered by the Pennsylvania State University (Penn State) in the USA. Our study, which is still at its planning stage, is likely to adopt a mixed methods approach, comprising (a) a qualitative component (drawing on interviews, text-based fora and discussions) aiming to help us gain some understanding of our research questions; and subsequently, (b) a quantitative component (drawing on clickstream data, quiz data, assignment submissions) with the aim of generating results that will be generalizable beyond the context of the studied MOOC. Our study is expected to bring value to scholars and practitioners from the information systems, management, engineering, and education communities through the insights it will provide about globally distributed collaboration, which is increasingly common in high-tech companies, for example. At the conference, we will present the theoretical foundations of our study and we will seek feedback on our thoughts on the methodological approach and expected contributions of our study.

Keywords: online learning, curiosity, virtual environments, MOOC.

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