Chapter 12
Virtual Worlds in the Context of Competence Development and Learning

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ABSTRACT

Recently, different researchers and practitioners provided new evidence for successful implementation of Virtual Worlds (VW) in educational context. Virtual worlds propose an immersive environment and sophisticated technology infrastructure and stimulate active learning and complex learning scenarios. At the same time, many educators and learning institutions are still hesitating to adopt VW in their educational models. Statistics show that the public interest in VW is declining and users spend less time in-world. VW is still a highly dynamic market, and many of them close operations. Should educational institutions join VW? What will be the future of VW in education? The present chapter aims to discuss the challenges behind VW implementation in the educational process from three main perspectives. First, how virtual worlds can enhance knowledge acquisition and development of key competences, increasingly needed by new generations, is analyzed. The second perspective discovers if and how virtual worlds can be used to practically transform the educational process, developing a new set of learning and training experiences. Finally, virtual worlds will be discussed from a disruptive technology point of view, discovering its strengths and limitations for education. At the end, the discussion will provide a general framework for assessing the VW benefits for education and its expected further development.

INTRODUCTION

Just few years ago, virtual worlds emerged with the promise to transform the Internet and the future of communication and collaboration. In 2007, virtual worlds gained attention of the business community, press, researchers and universities, public administration and international organizations. Millions of people joined the VW platforms and took part in building amazing 3D environments on the edge of human imagination, forming virtual communities and exploring new

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virtual experiences. Huge investments in money and time have been made, inventing sophisticated VW applications in various domains—business, research, education, entertainment, healthcare, politics, social care, art, and even there have been established virtual embassies. There emerged virtual economy, virtual goods and virtual money, allowing virtual trade and virtual business models. Virtual meetings, virtual company trainings, and virtual conferences proposed an alternative way of bringing people together, not just replacing telephone calls and physical meetings, but providing new dimensions and richness of interactions. Virtual worlds became a way of self-expression, business opportunity, and entertainment channel, as well as mode of life for millions. According to forecasts of Gartner in 2007, VW would soon dominate the Internet use, reaching 80% of active Internet population by 2011.

However, only few years later, the future of virtual worlds and their universal application is not so obvious. Statistics are proving that the interest toward VW is declining (Brenner, 2012). As discovered by some reports of Internet use, VW is one of the least popular Internet activities in 2010, used by less than 4% of all Internet users in USA, and VW are not popular among younger generations (Zickuhr, 2010). The reasons of this are numerous. On one side, companies behind VW had to survive the recent global financial and economic crises. Some of the VW have closed operations (Vivid®), while the others had to slow down their activities and technology development, neglecting some of the customer services and going on unpopular measures as raising prices. So what will be the future of VW? Will the implementation of virtual worlds in education remain an isolated experience from the first decade of 21st century?

The future of VW will be certainly a combination of many social, economical and technology factors. For example, Flavin (2012) makes an analysis of technologies used in higher education and concludes that although the high number of technological solutions used officially or non-officially in educational institutions, their success widely vary. His findings reveal that more bottom-up and less top-down approach is more likely to lead to the enhanced and successful adoption of educational technologies. Every user in education creates own meanings for technologies implementation. So how these findings will reflect on the use of Virtual Worlds?

Along with other Internet applications and social media solutions, educational use is not the primary concern for VW development. Thus, it is possible even very successful VW implementations in education to be endangered from VW closing or policy changing, thus putting all investments in educational infrastructure and learning content at risk. In the context of fast changing economic, social, and technological paradigms, it is extremely difficult for educational institutions and academia to adapt and follow the emerging trends. What trends will be persistent? What investments and how much investment should be made in VW and in any other technology in education? What will be the future trends in education?

Education institutions and academia need to change and modernize in order to meet the increasing public expectations. Adopting new styles of learning, new methodologies of learning and new technologies for learning or applying overall innovations in learning is somehow expected by students, by the society and even by the lecturers. However, it is difficult to predict which technological or social trends will persist and what type of innovations should be implemented. The process of knowledge acquisition and learning cannot change substantially because of the fixed human cognitive processes. Therefore, any application of new technologies in learning should be coherent to the objectives of the basic knowledge acquisition. Thus, the present chapter aims to discuss the phenomena of adopting virtual worlds in education from three main perspectives. The first part will review how virtual worlds can enhance knowledge acquisition and develop key competences, increasingly needed by new generations,