Chapter 15  
Virtual Gaming:  
A Platform for Multi-Skills and Multi-Literacies for Gamers  

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ABSTRACT  
This chapter explores how virtual gaming (VGaming) serves as an ideal platform for harnessing multi-skills and multi-literacies. It argues that VGaming provides the opportunity for gamers (learners) to engage not only in social learning, situated learning and problem based learning, but also in meta-gaming, meta-literacies, and multi-tasking. It demonstrates all this through the use of five case studies involving five virtual games: Everquest Online Adventures; NUCLEO; Homicide; Mad City Mystery; and Lineage. Most importantly, it maintains that VGaming exposes gamers to 21st century skills. Against this background, the chapter provides, first, an overview of VGaming. Second, it presents five case studies showcasing how virtual games (VGs) help leverage multi-skills and multi-literacies for gamers. In addition, it illustrates how VGs enable gamers to engage in social learning, situated learning and problem based learning on the one hand, and in meta-gaming, meta-literacies, and multi-tasking, on the other hand. Third, it argues that VGaming exposes gamers to 21st century skills. Fourth and last, the chapter outlines future trends for VGaming.

INTRODUCTION  
Gaming in general is rapidly gaining currency in the learning enterprise. In particular, it is increasingly revolutionizing different spheres of learning, thereby establishing itself as one of the contemporary learning paradigms. Hence, notions like game-based learning (GBL) and digital game-based learning have emerged as some of the major paradigms characterizing the learning landscape. It is in this scenario that virtual gaming - in its various forms and models - becomes relevant. Virtual gaming (VGaming) is leveraged by various gaming technologies. Some of these technologies include computers, video players, game consoles or portable devices (e.g., Nintendo Wii, Nintendo...
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DS Lite, Xbox 360, and PlayStation Portable), the Internet, and handhelds (e.g., mobile phones and personal digital assistants (PDAs)). These technologies or devices also operate as delivery or deployment platforms for VGs.

VGs can serve many purposes. For example, they can be used as learning objects within GBL. However, the primary purpose of this chapter is three-fold: to demonstrate that VGs entail social learning, situated learning and problem based learning (PBL); to explore the way in which VGs serve as a medium for promoting multi-skills (e.g., social, problem solving and scientific argumentation skills), multi-literacies, (e.g., gaming, meta-gaming, reading and writing, and scientific literacies), meta-literacies, and multi-tasking; and to emphasize that VGaming introduces gamers to 21st century skills.

Based on the above, this chapter consists of the following main parts: virtual game play: an overview; virtual games in action: what types of learning and skills are embodied in such games?; virtual gaming and 21st century skills; and future trends.

Virtual Game Play: An Overview

Virtual games (VGs) encompass, in this chapter, online, computer, simulation, video and mobile games, all of which are also regarded as digital games. In a growing body of literature and research on game-based learning (GBL), there tends to be a standard practice of classifying learning games according to the deployment devices or following the mediums or platforms on which they are offered. Here games are seen either as online-, computer-, simulation-, video- or mobile-based (see Krotoski, Ellis, Heppell, Kirriemuir & McFarlane, 2006; Mitchell & Savill-Smith, 2004; Shaffer, Squire, Halverson & Gee, 2004; Squire, 2008; Steinkeuehler, 2007). Such a classification is both necessary and useful. However, this chapter chooses to use the term virtual as an all-encompassing term for games deployed on such devices, mediums or platforms. It does so in order to bring the disparate games under one umbrella term while allowing each game category to retain its distinct identity.

What makes the term virtual appropriate and all-inclusive in referring to such disparate game categories is the multiple attributes it embodies. First, virtual has to do with something imagined or fake - something pretending to be real. Second, it is related to an actualized reality that can be created - simulated or virtual reality - and experienced by gamers. Third, like virtual memory the word virtual does not have any physical placement in relation to devices, mediums or platforms (see Klastrup, 2003; Thomas & Brown, 2009). Similarly, VGs such as the ones cited above, do not have any discernible physical locations in the devices, mediums or platforms within which they are played. Fourth, the presence and activation of virtual is relative to that of the devices, mediums or platforms through which it occurs, failing which it ceases to be. Likewise, VGs have their presence and activation confined to that of the software packages embodying them and to that of the devices, mediums or platforms through which they are played. Without all this, their virtuality ceases to be. All of the game categories mentioned above tend to embody these virtual attributes. Hence, their being referred to collectively here as VGs.

Playing and Gaming

Two important notions related to VGs are playing and gaming. Playing is what one engages in as a source of pleasure. It is completely captivating and helps form social groupings. It involves fun, or a sense of enjoyment (Mitchell & Savill-Smith, 2004; Prensky, 2001), leading to a relaxed state of mind predisposed to further play action or risk-taking in the form of learning. Sometimes, playing embodies free play as when players are free to play what they want to play. Free play promotes freedom to fail, to experiment, and to assume identity; and freedom of effort and of in-
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