Chapter 3
Games and Society: Can Games Make a Better World?

ABSTRACT

In this chapter, the authors consider how computer games can be beneficial for learning and education purposes. How computer games can start the learning progress, capture the imagination, enable creativity and storytelling, and provide an understanding of the power of computing is discussed. Also considered is how games might introduce girls (and boys) to a wide range of 21st century skills, which may lead to greater engagement in science, technology, and engineering subjects. However, due to the masculinity of computer games and the computer game culture more generally, the gender divide is a major disadvantage in the uptake of games for learning.

INTRODUCTION

Why might we want or need to consciously design and use computer and video games for learning? (Prensky, 2005, p97)

The chapters opening quote by Prensky poses an interesting question. This is an interesting question especially in terms of discussing the gender divide in computer games. As the introductory chapter highlighted, computer games are increasingly invading all aspects of our lives and it seems will continue to do so. The increase in the development of games and virtual environments for fun, learning, health and litigation is rapidly increasing. The potential opportunity for women to enter the labour market as developers, or be retained should be grasped by the sector. Illustrating both the prominence of computer games,
especially for the younger generation that has grown up with computers and the gender divide is some recent study findings. A study investigating how students’ use technology in an academic context found the majority of the 470 Australian 1st year students played games (77%), with 34% playing daily or weekly, and a significantly higher percentage of males played games compared to females (90% and 70% respectively) (Corrin, Lockyer, & Bennett, 2010). The study does however highlight that despite the gender differences, females do play computer games just maybe not to the intensity of both frequency and duration a males. Games are increasingly being used for educational purposes; especially stimulation games however there is a paucity of research on how these games are used for learning. Games are repetitive and interactive two elements that potentially make them influential (Anderson & Bushman, 2001). Games are also supposed to be fun which is important for engagement, motivation and immersion (Agarwal & Kkrarhanna, 2002).

In chapter one, a definition of computer games was provided. We now need to consider what makes a game a game. According to Reiber (1996) play usually has the following attribute; that it is voluntary, intrinsically motivating, involves some form of active engagement and has a make-believe quality. More recently McGonigal (2011) suggests that a game has four core elements; a goal, the rules, the feedback system, and voluntary participation. According to McGonigal everything else within a computer game is an effort to reinforce and enhance these four core elements. Therefore, competition and winning are not defining traits of games. Computer games in particular can enhance a number of emotional and psychological aspects including happiness, fear, power, and competition. Computer games also include a number of elements which make them appealing for the learning environment such as collaboration with other players, intrinsic motivation, interaction and engagement.

Games can aide learning because they are interactive, engaging, they can build in feedback and assessment and they promote 21st century skills. This chapter will discuss games and society, firstly a definition of what we mean by the term ‘serious games’ ‘is needed.

... the label [serious games] refers to a broad swathe of video games produced, marketed, or used for purposes other than pure entertainment; these include, but are not limited to, educational computer games, edutainment and advertainment [...] and also health games and political games. [...] in theory, any video game can be perceived as a serious game depending on its actual use and the player’s perception of the game experience. (Egenfeldt-Nielsen et al. 2008, p.205)

Serious Games are defined as digital games and equipment with an agenda of educational design and beyond entertainment. (Sorensen & Meyer, 2007, p.559)

[Serious games aim] to use new gaming technologies for educational or training purposes...it investigates the educational, therapeutic