Chapter 12
Games and the Development of Students' Civic Engagement and Ecological Stewardship

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ABSTRACT

In recent years, researchers and classroom teachers have started to explore purposefully designed computer/video games in supporting student learning. This interest in video and computer games has arisen in part, because preliminary research on educational video and computer games indicates that leveraging this technology has the potential to improve student motivation, interest, and engagement in learning through the use of a familiar medium (Gee, 2005; Mayo, 2009; Squire, 2005; Shaffer, 2006). While most of this early research has focused on the impact of games on academic and social outcomes, relatively few studies have been conducted exploring the influence of games on civic engagement (Lenhart et al, 2008). This chapter will specifically look at how Quest Atlantis, a game designed for learning, can potentially be utilized to facilitate the development of ecological stewardship among its players/students, thereby contributing to a more informed democratic citizenry.

INTRODUCTION

Computer/video games and virtual worlds have emerged as a pervasive influence on American society and culture in a relatively short period of time (Mayo, 2009; Squire, 2006). Students of all ages engage these environments as much or more than they watch television (Buckley & Anderson, 2006; Entertainment Software Association, 2006; Mayo, 2009; Michigan State University, 2004) which has led researchers to examine motivational factors such as the desire

to play, focusing on how computer/video games can be utilized to facilitate student learning in the classroom (Squire, 2006). Computer/video games and virtual worlds have been developed as models for improving the learning environment of students by implementing the types of clear goals and challenges that are presented to students through the gaming platforms, allowing for and challenging students to collaborate creating the potential for transforming learning in all types of settings, including schools (Gee, 2003; Shaffer, 2006; Barab et al. 2008; Barab et al., 2007). These virtual environments make it plausible to immerse students within networks of interaction and back-stories which engages them in problem solving and reflection in both real and in-world relationships and identities (Barab, 2008). This type of virtual-engagement represents what Gee (2003) identifies as empathetic embodiment of complex systems, where students develop an understanding of and appreciation for one or more aspects of the context of the virtual worlds in which they are engaged.

Many of the massively multiplayer online games (MMOGs) and multi-user virtual environments (MUVEs) provide students with the opportunity to role play, engaging them in a collaborative processes that facilitates participation and leads to problem solving, hypothesis generation and identity construction (Barab, 2008). These environments allow student players to become engaged in an evolving discourse as members of a community of practice (Barab, 2008; Lave & Wenger, 1991; Squire, 2006). By creating experiences of legitimate peripheral participation (Lave & Wenger, 1991) which emphasize conceptual understanding as a means to address authentic situations (e.g. taking on the role of a scientist, a politician, engineer, etc.), students come to a new way of knowing different from the more traditional, didactic approaches to curriculum and instruction (Barab, Hay, Barnett, & Keating, 2000; Brown, Collins, & Duguid, 1989). By balancing academic content, legitimate peripheral participation,

background narratives, and game rules, these virtual worlds can be utilized to support disciplinary-specific learning in content areas such as science, social studies, and civics (Barab, 2008).

Much of the current research has focused on how games and virtual worlds impact academic and social outcomes (e.g. aggression, violence), while relatively little research has been conducted exploring the impact of games and virtual worlds on civic engagement and society (Lenhart, Kahne, Middaugh, McGill, Evans, & Vitak, 2008). Citizenship, democracy and education are inextricably bound to the life of a nation (Bennett, Wells, & Rank, 2008). Schools work to prepare or help students build tools that enable them to play an active role in society as engaged, educated participants. An educated citizenry will contribute their skills and talents to preserve a democratic society. According to John Dewey (1916), community participation is a key to this maintenance. This community participation consists of individuals united through common interests, goals and ideas, but also allow for "free and full interplay" (Dewey, 1916, p. 83) with those who assert differing viewpoints and perspectives. This is the point of education, to nurture the development of individuals who can think and critically analyze, contributing to a democratic society.

In recent years, post-industrial democracies have acknowledged a crisis in student civic engagement, noting a lack of participation in elections and other traditional civic activities as students mature into adulthood (Bennett, Wells & Rank, 2008). However, while recognizing that students have become disengaged and disconnected from current political practices, most post-industrial democracies have continued to frame their conceptions of citizenship without regard to changing social identities and new and emerging ways of learning, (e.g. gaming, social networking and the internet) among young people (Bennett, Wells, & Rank, 2008). According to the Civic Mission for Schools (Gibson & Levine, 2008), while schools are the main source of civic education today, they

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