

## Chapter 17

# Why Videogames are not Teacher–Proof: The Central Role of the Teacher when Using New Technologies in the Classroom

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### ABSTRACT

*This chapter considers the crucial role that the teacher plays in supporting successful use of immersive technology in the classroom, focusing particularly on the use of an interactive, online, multiplayer videogame called Quest Atlantis. This chapter presents an account of successful strategies for integrating immersive technologies into teaching practice, such that the game does not replace the teacher, nor the teacher replace the game, but rather the two are integrated in their mutual support of student learning. The authors focus specifically on two distinct roles that teachers can play in leading whole-class discussions: attuning students to important concepts and connections in the game, and deepening opportunities to learn beyond what is afforded in game design. For each role, the authors present two contrasting cases with the goal of illuminating the central role that a teacher can play when integrating complex technologies into the classroom. Differences in the ways that teachers support their students while using games like Quest Atlantis are not trivial; it is argued that differences in teachers' support of whole-class conversations can create dramatically different opportunities for students to learn.*

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## INTRODUCTION

The Pew Report (2008) documented the increasing popularity of videogames for children and young adults, finding that 97% of teens between the ages of 12-17 play some form of computer or videogame. Despite their popularity and the growing agreement of the potential of videogames for supporting engagement, interest, and learning (Barab et al., 2007; Gee, 2003; Hickey, Ingram-Goble, & Jameson, 2009; Shaffer, 2006; Squire, 2006; Steinkuehler, 2006), schools have been slow to harness the potential of this new medium. Furthermore, the obstacles and benefits associated with using technology in classrooms have not been explored. Thus, little is known about how teachers integrate immersive technologies such as interactive, online, multiplayer videogames in the classroom, and, more specifically, what role the teacher must play in classrooms that integrate these technologies. An assumption motivating this chapter is that there is a need for detailed analyses of effective use of immersive technologies in classrooms and a need to better understand the kinds of teaching practices that support successful technology integration. As a field, we lack robust examples of successful and deep integration of technology that can support an emerging vision for practicing teachers.

In this chapter, we begin to address this gap by considering the crucial role of the teacher in supporting successful use of immersive technology in the classroom. This chapter presents an account of successful strategies for integrating immersive technologies into teaching practice, such that the game does not replace the teacher, nor the teacher replace the game, but rather the two are integrated in their mutual support of student learning. We present contrasting cases from two different curricular units being taught in the context of an online multiplayer videogame called *Quest Atlantis* ([www.questatlantis.org](http://www.questatlantis.org)). Quest Atlantis (QA) is an international learning and teaching project that uses a 3D multi-user

environment to immerse children (ages 9-16) in educational tasks. Although disciplinary content can differ significantly among QA units and activities, the structure, goals, and narratives of the units overlap considerably and are all designed to foster an experience of *transformational play* (Barab, Gresalfi, & Arici, 2009). Briefly, transformational play describes an experience that a person can have while engaged in game play, which involves taking on the role of a protagonist who must employ conceptual understandings to interrogate and ultimately make choices that have the potential to transform a problem-based fictional context. Positioning students in this way sparks their interest, but even more importantly, can lead to deeper engagement with content.

We focus on Quest Atlantis because it represents a kind of game (narratively rich, situationally complex, and allowing for exploration) that is well entrenched outside of school, but only beginning to gain popularity inside classrooms. Despite the potential of games like Quest Atlantis for supporting learning, integrating the game into traditional classroom contexts creates novel challenges for students and teachers. QA is best understood as an immersive project-based-learning curriculum, rather than a traditional “drill and practice” computer game of the type commonly used in schools. Because the game is so different from curricula typically used in classrooms, implementing the game effectively requires that students and teachers change some of their common practices. For teachers accustomed to using instructional techniques that are more aligned with drill and practice, using immersive games like Quest Atlantis requires learning more about inquiry teaching methodologies and guiding students rather than leading them through activities. Even for teachers familiar with more inquiry-based projects, the videogame can create new and unusual demands (for example, students might play the game at very different speeds, or need help focusing on content amidst the exciting narrative) (c.f. Cross, Gresalfi, & Hudson, under review).

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