

## Chapter 2

# Encouraging Engagement in Game-Based Learning

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### ABSTRACT

*It is a common misconception that game-based learning is, by its very nature, engaging for the majority of learners. This is not necessarily the case, particularly for learners in Higher Education who may need to be persuaded of the value of learning games. For some learners, games may simply not be perceived as engaging—either in terms of an initial motivation to play or sustained participation. This paper describes the Alternate Reality Games for Orientation, Socialisation and Induction (ARGOSI) project, which experienced unexpectedly low motivation and participation. Despite extensive marketing, only a small fraction of potential students participated in the game and of those a far smaller number were highly engaged. Evidence from the project is presented and the reasons for the lack of engagement in the game created are considered. Finally the paper reflects on ways in which engagement with game-based learning might be encouraged.*

### INTRODUCTION

This paper explores a range of issues associated with learner engagement with computer games. There is growing interest in the use of computer games across all sectors and there is evidence that digital game-based learning can be an effective tool in a variety of educational settings, including primary schools (Bottino & Ott, 2006; Sung, Chang, & Lee, 2008), secondary schools

(Squire & Barab, 2004; Akkerman et al., 2009), universities (Ebner & Holzinger, 2007; Connolly et al., 2007), adult literacy (Kambouri, Thomas, & Mellar, 2006), military training (Fong, 2004) and surgical management (Mann et al., 2002).

Computer games can have clear pedagogic value and the potential to provide a range of learning outcomes, from behaviourist drill-and-practice games to constructivist learning environments in which students can solve problems, work together

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and learn from their experiences (de Freitas, 2006; Whitton, 2010). Games can embody many good learning and teaching practices such as scaffolding from easy to hard tasks, provision of a safe environment in which students can learn from their mistakes and creation of characters that learners can relate to (Sandford & Williamson, 2005). In addition, the existence of clear and achievable goals, continual and time-appropriate feedback, peer support and mentoring can all support the process of learning.

One of the other key advantages of computer games for learning is often considered to be the high levels of engagement they can create (e.g., Prensky, 2001; Oblinger, 2004). This focus on engagement is problematic because, while games will certainly enthuse and engage many people, they will also disengage and demotivate others – particularly in the case of older learners, for whom time is more limited and who may take a more strategic approach to learning (Knowles et al., 2005). A more sophisticated understanding of learner engagement with games is required to fully appreciate the implications of adopting a game-based approach.

This paper describes a game-based learning project in which lack of student engagement – both in terms of initial motivation to play and sustained participation – was an issue that impacted on the overall success of the project. An alternate reality game was developed at Manchester Metropolitan University to support student induction and, while some players were highly engaged, the majority either chose not to engage at all or dropped out in the early stages of the game. This paper considers the reasons for this lack of engagement and explores potential solutions.

First, a description of alternate reality games is provided and the rationale for using this game form in education discussed. The Alternate Reality Games for Orientation, Socialisation and Induction (ARGOSI) project is then described, with a brief overview of the research activities that took place to evaluate it, and the findings of this evaluation.

The paper then discusses the possible reasons for the lack of engagement that students exhibited and explores possible ways in which to enhance and encourage engagement with game-based learning.

## **LEARNING WITH ALTERNATE REALITY GAMES**

Alternate reality games (ARGs) present an opportunity for educators to create affordable and technologically-feasible computer games with the potential to engage learners. They are a comparatively recent genre of game, with the first fully-formed ARG considered to be a game called *The Beast*, which was created in 2001 to promote the film *AI*. Alternate reality games create a fictional game world and storyline that are interspersed with real people, places and events so that they ‘take the substance of everyday life and weave it into narratives that layer additional meaning, depth, and interaction upon the real world. The contents of these narratives constantly intersect with actuality, but play fast and loose with fact, sometimes departing entirely from the actual or grossly warping it’ (Martin et al., 2006, p. 6).

ARGs have been noted for their high levels of engagement among players, even described as ‘obsession-inspiring’ (Borland, 2005) as players within this ‘alternate reality’ engage in a series of interactive and collaborative challenges. These tasks may take the form of puzzles, riddles, treasure hunts or creative challenges such as creating a video, poem, photograph or physical object. As the players complete challenges, the storyline unfolds over a period of time and players can discover more about the underlying mysteries of the game. Intrinsic to alternate reality games is the idea that there is no explicit distinction between the real world and the alternate game world, so for example web sites within the game will often be indistinguishable from genuine sites, the creators of the game often go to great lengths to uphold the secrecy of the game, and the game will often

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