Chapter VI
From Individual Learning to Collaborative Learning—Location, Fun, and Games: Place, Context, and Identity in Mobile Learning

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ABSTRACT

This chapter explores mobile learning where location and game like or playful activity adds to the context of learning. The relationship between space, play, and the development of context and learner identity is explored through an examination of the issues concerning the context of space, narratives, and engagement. There is a discussion of the meta-knowledge and specific learning attributes we would want to encounter in mobile game like learning. These issues are further explored in three case studies of learning activities which have been designed such that the context of location and game like or playful learning is significant. The examples include simple games based on multiple choice questions, a complex multi-role simulation and an environmental tagging and hypermedia project. The case is made for the potential of the context of location, and game-like learning in mobile learning.

INTRODUCTION

This chapter looks at two specific aspects of mobile learning. First, learning where location plays an important part in the context of learning, and subsequently the chapter will refer to locative learning. Second, the chapter will also explore (though not in every case describe) elements of fun and playfulness that are explicitly designed into the learning experience. The case examples, described in the chapter, are all drawn from the work of Futurelab, an independent research and development organization based in Bristol, UK during its first five years. Futurelab was set up to catalyze and network education, technology and media organizations into innovative activity that
had the potential to transform learning and teaching (see also Owen 2005). It was funded mainly from government sources, but there has also been funding from commercial sources (detailed on Futurelab’s Web site.)

Specifically, this chapter investigates some general research questions about technology and learning and then looks at some particular research questions in each of the case studies. The major questions we have are:

• Can we make playful, game-like activities that deliver educational experiences we value?
• Can we use technology that adds to the context of space, which increases the learning potential of that space?

And,

• Can we use technology to add new playfulness to space—technologies that add learning context to space—that significantly change that space for learning purposes?

These questions broaden into examining issues like:

• What relationships are important between space, play, and the development of context and learner identity?
• What meta-knowledge and specific learning attributes can we foster in mobile game like learning?
• What is the importance of narrative, the temporal rhythms, the context, projected identities, collaboration, and creativity in the design of mobile learning experiences?

Three cases will be described. Each case contributes in its own way to increasing our understanding of the ways that technology and location can work together to provide new learning experiences. Each case study in itself generated its own research questions and the approach has been bottom-up pragmatic understanding rather than any attempt at grand theory building. However, from these concrete examples we can begin to look for a coherent picture of some of the issues and opportunities that locative learning presents. However, it is also fair to say that there is a fairly explicit commitment to constructivist learner centric approaches and to a strong element of user-involved design in all the cases.

The three case studies are:

• Light Aircraft Pilot: where we use a particular approach to multiple choice quizzes to encourage game like learning based in a real world context;
• Savannah: where we use GPS enabled, wirelessly networked HP iPAQs to create a multi-player role playing game where the school soccer pitch is turned into an African Savannah and the students become a pride of lions; and
• Mudlarking in Deptford: The use of GPS enabled handheld devices to add information to the spaces that the learner is in.

Light aircraft pilot is part of the COLLAGE (collaborative learning platform using game-like enhancements) project, where students visit historic sites or sites of ecological interest and play out roles mediated by hand-held computers and mobile phones. COLLAGE was funded by the European Union (EU) e-learning program. The chapter also draws on two other EU funded programs, which had Futurelab as a partner. These ran over a longer timescale than most Futurelab projects, and all three had a specific intent of outlining research themes in learning with technology in location. The other two projects were La Piazza (part of the Kaleidoscope Network of Excellence) which was a pre-research exercise in intergenerational learning in technology enhanced public spaces; and Puente (funded by the EU Minerva program) which has been a continuation of La Piazza with
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