

Chapter 8

Learning in Virtual Worlds: A Situated Perspective

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ABSTRACT

Due to the availability of platforms like Second Life, the use of Multi-User Virtual Environments (MUVEs) for learning purposes is gaining in its adeptness around the educational realm. However, although it is a powerful technology with great possibilities for instructional purposes, we are still at the early phase of adoption and in need of a clearer understanding of how we learn within a virtual world. Particularly, we need to explore new and different ways of employing this technology to take advantage of its educational potential. Along these lines, this chapter's main objective is to outline a set of instructional strategies framed within the situated learning paradigm to increase the quality of learning in a MUVE; and to recommend some research questions that could be used to validate the proposed instructional strategies. To accomplish this objective, first the situated learning paradigm and some of its more relevant influences will be reviewed; i.e. constructivism, Vygotsky's theory, communities of practice, practice fields, learning communities and cognitive apprenticeship. Secondly, based on all these ideas, the instructional strategies and the recommended research questions will be presented; and finally, a conclusion and some future trends will be discussed.

INTRODUCTION

At present, due to the availability of platforms like Second Life, the use of Multi-User Virtual Environments (MUVEs) for learning purposes is gaining in its adeptness around the educational

realm. However, Romiszowski (2008) warns us about forgetting the already learned lessons when designing learning experiences with these newly emerging technologies. He is referring to previous experiences with instructional software and multimedia, where expensive technologies were developed for learning low-level educational objectives like rote-memory or drill and practice;

DOI: 10.4018/978-1-61692-822-3.ch008

objectives that can be accomplished through more cost-effective means.

Frequently, innovations end up being used to do the same things that we have been doing with older technology. It appears that, except for some very interesting examples, this is still the case with open access virtual technologies; for instance, Dieterle and Clarke (2005) stated that, although multi-user virtual environments have been used for games, they are seldom used for significant teaching and learning experiences. Also, Berge (2008) found few innovative instructional uses for the virtual world Second Life and stated that it has been mostly used to replicate real life experiences. I agree with Richardson and Molka-Danielsen (2009) when they wrote that, although used extensively by educational institutions, we are still in an early phase of adaptation regarding technologies like Second Life.

We are at a stage where we still need to better understand how we learn within a virtual world and to explore new and different ways to take advantage of the educational potential that these technological platforms have. Of similar opinion, Gunawardena et al. (2009) recently stated that we need new theoretical frameworks to explain learning and the type of social interactions made possible by the new technologies.

Considering the previous arguments, this manuscript's main objective is to outline a set of instructional strategies framed within the situated learning paradigm to increase the quality of learning in a MUVE; and to recommend some research questions that could be used to validate the proposed instructional strategies. The field of situated cognition is complex and uses different terminology; thus, an effort will be made in this paper to structure and clarify what we mean by situated learning. First, the Background will introduce the situated learning paradigm and some of its more relevant influences will be reviewed; i.e. constructivism, Vygotsky's theory, communities of practice, practice fields, learning communities and cognitive apprenticeship. Secondly, based on

all these ideas, a group of instructional strategies and research questions will be presented; and finally, a conclusion and some future trends will be discussed.

BACKGROUND

The Situated Learning Paradigm

As can be inferred from its title, this manuscript considers that the situated perspective of human cognition is a valuable framework in which to analyze how students build knowledge interacting psychologically and physically within virtual worlds. This is so because the situated learning paradigm takes into consideration the social, cognitive, and contextual aspects of a learning situation. This theoretical frame of reference has been developed by a group of investigators over several decades and proposes a different perspective on the nature of human learning.

To begin the discussion about this different perspective on the nature of human learning it is important to first bear in mind what Maturana and Varela (1987) assert regarding human cognition, a statement that I believe captures the essence of the situated learning paradigm and also enlightens why this paradigm is useful for studying virtual worlds that intend to simulate real life; they propose to see cognition "As an ongoing bringing forth of a world through the process of living itself." (p. 11). This idea, clearly in line with constructivist propositions, is basically integrating knowing and doing, or, as the same authors eloquently put it with the aphorism: "All doing is knowing and all knowing is doing" (p.27). By depolarizing knowing and doing we are in fact focusing on the person and his or her context as a whole. Unfortunately, most of the educational processes happening around the world, be it in a regular classroom, a teacher's training program or a corporate training unit, believe that these two can in fact be separated; just visualize for a

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