

Chapter 17

Ethical Considerations for Learning Game, Simulation, and Virtual World Design and Development

Scott Warren

University of North Texas, USA

Lin Lin

University of North Texas, USA

ABSTRACT

The goal of this chapter is to identify ethical concerns that instructional designers should be aware of when designing and developing learning games, simulations, and virtual worlds. Partly taken from ethical considerations that researchers are required to follow as part of standard institutional review board processes for the protection of human subjects, we suggest specific ethical principles which designers should consider prior to and during the design of these complex learning systems as well as during the evaluation of the products. We provide examples from existing and past learning games, simulations, and multi-user virtual environments that have either followed these principles or left questions to be addressed and propose a series of ethical considerations in future designs.

INTRODUCTION

Since the early 1960s, games and simulations have received increasing attention in educational settings (Zuckerman & Horn, 1973; Stadslev, 1974). With the rapid development of digital technologies, using simulations and games for

teaching and learning is not only an alternative method, it has also been advocated as necessary for educators and researchers to motivate today's generation of learners (Dickey, 2007; Gee, 2003; Prensky, 2001; Tuzun, 2004). The presence of rapid feedback structures, high-end dual coding of audio and visual affordances, and the very fact the kids play games at a rapidly increasing rate in their non-school time have all prompted

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this imperative (Entertainment Software Association, 2007). Further, simulations and games in the classroom offer the promise of increased student interactivity, autonomy to learn at an individualized pace, and the safety to repeatedly practice skills in a digital environment without the threat of real-world consequences (Prensky, 2001; Winn, 2002).

Despite the excitement within the field of simulations and games, there are growing concerns with commercial products that do not align with the ethical responsibilities of teachers and researchers. Increasingly, news reports have shown that these technological tools, when misused, have led to child neglect (Press, 2007b) and more than one player death (Press, 2007a; Writer, 2005). Recently, the American Psychiatric Association (Press, 2007b) has even pushed to classify Internet and video game addiction as psychological disorders. Instructional designers, teachers, and researchers must be aware of these concerns as they develop or use simulations for instruction or research.

The purpose of this chapter is to examine some of the core ethical concepts that create both ethical obligations and challenges that educators, instructional designers, and researchers need to consider when designing games, simulations, and multi-user virtual environments (MUVE) for teaching and learning. To begin, we examine basic concepts of ethical obligation as have emerged from research over the past decades and then explore how games and simulations create challenges for designers.

BACKGROUND: QUESTIONS AND ISSUES

There is no possibility of thinking anything at all in this world, or even out of it, which can be regarded as good without qualification, except a good will.— Emmanuel Kant, Grounding for the Metaphysics of Morals, 1785 (Kant, 1993)

Kant's (1993) concept of duty-based ethics places a number of questions on those who design instruction. In a field where a core assumption is that learning is good, how do we ensure that our intention to create good, innovative instruction does not have untoward consequences for learners? As our designs become ever more complex, especially in the case of recent developments focused on using games, simulations, and virtual worlds for learning, how do we think about design to maximize learning and minimize negative consequences when the numbers of variables present in the learning space are difficult to measure? If we have difficulty discriminating which variables may have influence on learning, can we make claims that our designs are good for learning?

Further, a number of questions arise that may have different answers for different designers without a common frame of reference for what the ethical responsibilities of an instructional designer are. For example, what do we owe those we design for when producing instruction in terms of guaranteeing positive outcomes? What questions should we ask and answer about the outcomes and technologies before we ever sit down to design instruction? Should we design or use the systems at all when the systems we design are so complex that we cannot discriminate variables, determine the effectiveness of the treatments, or understand the systems fully? Are we ethically bound to take special considerations with our designs for children and other protected populations in the same manner required by ethical standards established for research?

These questions are rarely addressed in the literature related to instructional design in an era when technologies and learning systems are changing at a pace faster than we can study them. Making a determination as to whether an instructional design follows a code of ethics is further complicated by a lack of detailed instructional design reports produced by those working in the field, especially if the research findings are not

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