Eidsvoll 1814:
Creating Educational Historical Reconstructions in 3D Collaborative Virtual Environments

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ABSTRACT
3D Collaborative Virtual Environments (CVEs) or virtual worlds have been widely used in educational settings for the purposes of simulation and demonstration of scientific concepts, art and historical events that for practical reasons may be complicated in real-life classrooms. This paper describes an experience of recreating a central event in Norwegian history, adoption of Norwegian constitution at Eidsvoll in 1814, in the virtual world of Second Life. The historical building where this event took place was reconstructed and used as a part of an online history course where Norwegian students residing all over the world could meet at Virtual Eidsvoll, play the role of the members of the Constituent Assembly and pass the constitution. Following the description of the experience with the Virtual Eidsvoll project, the authors conclude with a critical discussion of using 3D CVEs for history education, outlining directions for future work.

Keywords: 3D Collaborative Virtual Environments, Educational Virtual Worlds, Historical Reconstructions, Immersive Roleplay, Online Courses

INTRODUCTION
In recent years, 3D Collaborative Virtual Environments (CVEs) or virtual worlds have been widely used for supporting learning in different contexts (see e.g., Jennings & Collins, 2008; de Freitas, 2008; Maher et al., 2001; Molka-Danielsen, 2009), ranging from primary education to corporate training. 3D CVEs have been mainly adopted for their potentiality of offering a new space for promoting socialization and communication. Also, 3D virtual worlds offer a rich collaborative arena for social encounters and community building because of their capability to provide a social arena where students and teachers can meet across distances and time zones, which is especially important in today’s globalized society (Hendaoui, 2008; Craven et al., 2000; Maher et al., 2001; Kelton, 2007).

An important part of educational process is knowledge sharing and communication. The virtual space provides occasions for chance encounters and therefore informal communication and an environment where learners can have and share experiences, which is acknowledged as one of the main requirements for learning

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(Maher et al., 2001). On the longer term, the space also becomes a container of artifacts used by the students for their daily social and educational activities. It can also substitute or complement the physical space normally inhabited by learners. This opens for new possibilities of cooperation among distributed users (Cuddiny et al., 2000; Jakobsson, 2002; Machado et al., 2000; Molkka-Danielsen, 2009).

3D CVEs not only provide an additional place for the community using the system, but also a space with a higher degree of flexibility than the physical one. In such an environment one can create and manipulate ‘virtual’ land to create places suitable for current social and learning situations, such as a meeting place for a student group, a lab, a museum or reconstruction of a historical place (Bani et al., 2009; Barret & Gelfgren, 2009). This is usually not possible (or too difficult) in real life. This flexibility is very important because it allows a community to progressively build, structure, and restructure the space according to its evolution (Hudson-Smith, 2002; Schroeder et al., 2001).

This flexibility and freedom of construction led to a wide adoption of 3D CVEs for the purposes of simulation and demonstration of for example scientific concepts (Chemeet, (ActiveWorlds)) and art exhibitions (VanGogh (ActiveWorlds)) that for practical reasons may be complicated in a real-life classroom. 3D CVEs are also extensively used for historical reconstructions and roleplays, both for entertainment and educational purposes (see e.g., Henry Tudor Lands and Roma (Second Life, http://secondlife.com/), Harlem Renaissance (Sosnoski et al., 2006; Bani et al., 2009).

In this paper we describe an experience of recreating a central event in Norwegian history, adoption of Norwegian Constitution at Eidsvoll in 1814, in the 3D virtual world of Second Life (SL). In the year 1814 Norway was about to break out of the union with Denmark, and representatives from most of Norway met to create a new constitution based on the results of the French and American revolutions. This event took place in a building at Eidsvoll, called “Eidsvollsbygningen” (Figure 1).

This historical Eidsvoll building with its surroundings was reconstructed in Second Life, together with features making it possible to conduct different learning activities such as working in groups and attending plenary lectures (Figures 1 through 6). Inside the building, a special room was reconstructed based on the famous painting by Oscar Wergeland “The Constituent Assembly at Eidsvoll 1814”/”Riksforsamlingen på Eidsvold 1814” that is currently displayed in the Norwegian Parliament (Figures 3 and 4). This setting was used as a part of online history course at Globalskolen (www.globalskolen.no) where Norwegian students residing all over the world could meet at Virtual Eidsvoll, play the role of the members of the Constituent Assembly and pass the Constitution (Figures 4 through 6).

The goal of the project was to make the students familiar with what happened at Eidsvoll in 1814, allow them to explore and understand how the Assembly members/”Eidsvoll men” made the Constitution, why the Constitution was made as it was and understand the conditions in Norway at this time. Another goal of Virtual Eidsvoll was to explore the potentials and limitations of 3D CVEs for educational historical reconstructions and roleplays, also in comparison with other tools used for history education in a distance learning context (such as LMS). The experiences from the project resulted in a set of guidelines for educators considering using virtual worlds in history classes, especially in online ones.

The rest of the paper is structured as follows. Following the description of the study settings, we describe our experiences with Virtual Eidsvoll, including student observations in the virtual environment and the results of questionnaires. We continue with a critical discussion of using 3D virtual worlds for educational historical reconstructions and roleplays, pointing out the benefits of this approach and providing a set of recommendations for educators. To the end, directions for future work are discussed.
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