Chapter XXII A Virtual Museum Where Students can Learn

Nicoletta Di Blas *Politecnico di Milano, Italy*

Paolo Paolini Politecnico di Milano, Italy

Caterina Poggi *Politecnico di Milano, Italy*

ABSTRACT

SEE, Shrine Educational Experience, represents an example of how Internet and multimedia technologies can effectively be exploited to deliver complex scientific and cultural concepts to middle and high school students. SEE (a project by Politecnico di Milano and the Israel Museum, Jerusalem) is based on a shared online 3-D environment, where students from four possibly different countries meet together to learn, discuss and play, visiting the virtual Israel Museum with a guide. The educational experience combines online engagement and cooperation to "traditional" off-line learning activities, spread across six weeks. Data from an extensive two-year-long evaluation of the project, involving over 1,400 participants from Europe and Israel, prove the educational effectiveness of this innovative edutainment format.

INTRODUCTION

SEE—Shrine Educational Experience—is an e-learning project based on a shared online 3-D environment, where students from different countries meet to learn, play, and engage in a high-level

scientific debate about the Dead Sea Scrolls, one of the major archaeological discoveries of the 20th Century. The Dead Sea Scrolls were written by a Hebrew community who lived in the archaeological site of Khirbet Qumran between 170 BC and 68 AD (Roitman 1997). They represent the earliest known version of books from the Bible, and a precious source to understand the roots of Western civilization.

SEE is the result of cooperation between the Politecnico di Milano and the Israel Museum, Jerusalem. As part of its educational mission, the Museum wished to make its large body of knowledge and artefacts upon the Dead Sea Scrolls accessible to the public at large, and to open issues of scientific research to a broader public, with respect to the small group of scholars to whom the discussion is usually restricted.

Thanks to Internet technologies, providing simultaneous access to users independently from their geographical location, (middle and high school) students from all over the world can visit the virtual Shrine of the Book (Figures 1-2), and take part in discussions, games, and debates with international experts, discussing state-of-the-art research about the Dead Sea Scrolls.

Each SEE experience involves four classes of students between 12 and 19 years of age, located in different geographical areas: they meet, in the online virtual world, four times (over a period of six to seven weeks). Through the online meetings students get acquainted with each other, discuss, play, answer quizzes, present their social and cultural environment, etc. Students, in addition, cooperate off-line, under their teacher's supervision, studying background material (based upon interviews with leading international experts) and carrying on their own homework.

This innovative learning experience aims at four major educational goals:

Figure 1. A screenshot of the virtual Shrine of the Book, reproducing the wing of the Israel Museum where the Scrolls are preserved



Figure 2. The real buildings of the Shrine of the Book at the Israel Museum, Jerusalem



17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-

global.com/chapter/virtual-museum-students-can-learn/9134

Related Content

Learner Modeling in Educational Games Based on Fuzzy Logic and Gameplay Data

Nabila Hamdaoui, Mohammed Khalidi Idrissiand Samir Bennani (2021). International Journal of Game-Based Learning (pp. 38-60).

www.irma-international.org/article/learner-modeling-in-educational-games-based-on-fuzzy-logic-and-gameplay-data/274329

E-Assessment: The Demise of Exams and the Rise of Generic Attribute Assessment for Improved Student Learning

Darrall Thompson (2006). *Self, Peer and Group Assessment in E-Learning (pp. 295-322).* www.irma-international.org/chapter/assessment-demise-exams-rise-generic/28808

Social Software in E-Learning: Beyond Blogs and Wikis

Jon Dron (2007). Control and Constraint in E-Learning: Choosing When to Choose (pp. 271-293). www.irma-international.org/chapter/social-software-learning/7157

Positive Effect of a Motor Intervention Program With Exergames: A Blind Randomized Trial

Pâmella Medeiros, Érico Pereira Gomes Felden, Marcela Almeida Zequinão, Paola Cidade Cordeiro, Kamyla Thais Dias de Freitas, João Otacilio Libardoni dos Santosand Fernando Luiz Cardoso (2020). *International Journal of Game-Based Learning (pp. 55-64).*

www.irma-international.org/article/positive-effect-of-a-motor-intervention-program-with-exergames/262197

Using Formal Game Design Methods to Embed Learning Outcomes into Game Mechanics and Avoid Emergent Behaviour

Simon Grey, David Grey, Neil Gordonand Jon Purdy (2017). *International Journal of Game-Based Learning* (pp. 63-73).

www.irma-international.org/article/using-formal-game-design-methods-to-embed-learning-outcomes-into-game-mechanicsand-avoid-emergent-behaviour/182563