
Chapter XVII

Knowledge Spaces: Cultural Education in the Media Age

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ABSTRACT

Research into the opportunities offered by electronic media, as regards finding and acquiring knowledge, together with the development of new teaching and learning methods for the field of art and culture is the focus of the work being carried out by the Media Arts Research Studies (MARS) research group at the Fraunhofer Institute for Media Communication. This chapter illustrates the requirements on electronic and digital media concepts in the context of e-learning, using the very latest developments and experience in this sector as examples.

In the broadest sense, the aim is to visualise information and create networked “knowledge spaces” which are accessible to users as new forms of teaching and

learning through play. Experimental methods, tools and interfaces that support communication between the digital and physical spaces and investigate new forms of knowledge retrieval are being developed and tested.

INTRODUCTION

Media-Based Teaching and Learning Concepts

How do people learn? By asking questions and seeking answers, by finding opportunities and making decisions, by processing information and establishing contexts. As in many other sectors, digital media also bring new opportunities for basic and advanced training in the field of art and culture. In contrast to many other sectors, however, the abilities of expression, experimentation and reception are important, since they support the growth of artistic and cultural orientation and the ability to deal with such concepts (Panzini, 1999).

Digital media, information and network technologies have profound implications on the opportunities for communicating and building knowledge, online study and e-learning. For some, the main advantage of online learning is the ability to communicate instructions via the Internet wherever you are, as can be witnessed in numerous popular e-training programs. Others regard the Internet as little more than a wild, untamed data archive. Neither of these groups is making the most of the opportunities available, since the constantly growing “network of networks” offers far more than just that. It creates a space in which learners and teachers can work together to create and depict new forms of knowledge from a universal archive, regardless of the time or place they occupy.

In this sense, the Internet is both an “archive” and a “cultural memory.” It is becoming a space for telematic presence and is fulfilling a “globalisation role” that can create a feeling of cultural togetherness — regardless of geographical location (de Kerckhove, 1990).

Because of the lack of suitable methods and tools that provide access to this “complex new world of knowledge,” many contemporary e-learning concepts transfer mostly linear, traditional learning and training methods to new, digital media without really exploiting their full potential (Kritzenberger & Herzceg, 2001).

The challenge must be to create constructive and logical frameworks that provide as informative a picture as possible of the extensive collection of data material. In order to be able to understand a large amount of information quickly, this information must first be visualised and contextualised appropriately (Wilson, 2002, p. 761f). In addition to the appropriation of cultural technology for digital media, a “sensory training” is a basic requirement for perception, recognition and learning in order to acquire knowledge (cf., Weibel, 2002). At the same time, the perception of the physical world needs to be included into media-based teaching and learning concepts. Of equal importance are the skills required for social interaction and collaboration, which should not be restricted to a “screen presence.”

The MARS Exploratory Media Lab is pursuing the idea of creating networked “knowledge spaces” — telepresent Mixed Reality spaces that are created by overlapping the physical and electronic domains. These are networked places, spaces and tools that are accessed via experimental interfaces, which link the real and virtual environment.

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