ABSTRACT

Information literacy is a crucial attribute in today’s knowledge society, because it makes independent lifelong learning possible. Faced with a digital world where new tools for information seeking and the spaces for information sharing are developing, academic librarians must respond to the changing learning landscape in order to help students acquire essential skills. Computer games, due to their cognitive potential and engagement capacity, can be used to promote and improve information literacy instruction. This text consists of a review of available literature on these topics. It addresses the role of computer games in the teaching and learning process and aims at discussing its possible use as training tools for promoting information literacy in libraries.

INTRODUCTION

In today’s knowledge society, the creation of value depends on harnessing the power of information. Advanced skills and high qualifications are required to ensure organizational competitiveness. Given the expansion of knowledge-based economy and the exponential growth of information available, schools and universities should help train people to be able to search, find, evaluate and use information whenever necessary. The skills and methodologies involved are transversal and allow graduates to learn throughout life, fostering their professional integration and evolution. This has consequences for the libraries of these institutions, whose professionals, due to their training in organization, retrieval and evaluation of information, are especially equipped for ensuring this aspect of preparing students for the future through a pedagogical attitude about the identification of sources of quality information and the efficient use of available resources.
In other words, libraries, while maintaining their traditional functions of building collections and providing information services, must teach its users a set of essential skills in terms of information literacy, considering not everybody is equally able to take full advantage of available resources. Fighting information illiteracy, which is a cause of social exclusion, might contribute to increase the importance of libraries as spaces for research and learning.

One possible way for libraries to achieve this educational goal is to explore the potential of games in general or, more specifically, of computer games. Crawford (1997) noted that games have become an integral part of learning activities in many civilizations and are in fact “the most ancient and time-honored vehicle for education” (p. 15). Nevertheless, games have always evolved along with human culture, society, and technology. Considering that information literacy is not an easy subject to teach students, particularly given the increasing diversity and complexity of information sources, it seems natural to look for tools that take advantage of today’s digital culture and use computer games (Kirriemuir, 2008). Thus, librarians’ role as instructors would not be diminished, but updated through the use of teaching methods that employ media in which students are already engaged. As the world changes, the way people play changes too, but play’s importance remains constant. It not only help us to relax, but also prepares us for life’s challenges. The same technologies that influence our forms of entertainment and communication with other people can be used to foster knowledge construction and development of new skills.

Therefore, the objectives of this chapter are to expose the need to train information literate citizens and to present arguments concerning the potential of computer games as educational tools to achieve this aim.

INFORMATION LITERACY FOR THE 21ST CENTURY

Traditionally, the concept of literacy was associated to a linguistic code and defined as the ability to read, write and understand texts. However, with the rapid development of new communication technologies and the consequent proliferation of information, the nature of literacy has undergone a transformation in order to include the ability to learn, comprehend, and interact with technology in a meaningful way. Hence the advent of the expression information literacy, defined by the Chartered Institute of Library and Information Professionals (CILIP) as the ability to recognize when and why information is needed, where to find it and how to evaluate, use and communicate it in an ethical manner (Armstrong, Boden, Town, Woolley, Webber, & Abell, 2005).

This term incorporates the traditional views of literacy as well as new forms of literacy associated to technological progress. Probably, its meaningfulness will increase due to the recent developments of the World Wide Web, notably the change of paradigm from Web 1.0 to Web 2.0 and the evolution towards the semantic Web, with its emerging methods of information extraction and semantic analysis of data. In Web 1.0, the flow of information was largely unidirectional, with the common cybernaut acting merely as a receptor. But the recent popularization of resources such as blogs, wikis, podcasts, and social tagging systems has led to the advent of the so called Web 2.0, where every person with a minimum of technological skills can be not only a consumer, but also a producer of information. For this reason, the concept of literacy will tend increasingly to include the skills and competencies involved in finding, selecting, analyzing, evaluating, and storing information, as well as in its treatment and use, independently of the associated codes or technologies.

As Vieira (2008) states, from an historical perspective, literacy represents a pole of attraction for