

## **Chapter XIV**

# **Digital Libraries as Learning Environments for Youths**

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## **Abstract**

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*Students have long been associated to learn in groups in physical environments. As more and more digital libraries emerge, and libraries take a greater role in education together with academic institutions, there is a need to address digital libraries as learning environments. This chapter looks specifically at the process of learning between peers in a group and how digital libraries can lend themselves as a learning environment towards this purpose. Using a participatory process involving two groups of youths, observations were made to suggest design features for digital libraries used for electronic learning. This is a pilot study to investigate how youths collaborate with one another in a simulated learning environment. It is hoped that with a good understanding of the peer learning process, researchers can be assisted in future studies looking into digital libraries for educational purposes amongst learning groups.*

## Introduction

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“Because we enjoy each other’s company, we generally learn best from each other.”– Mark Stefik

The traditional classroom has a long history of children teaching younger ones (Briggs, 1998). Like Stefik, many researchers have found evidence of students learning better, or reinforcing key concepts when they do it in a peer group (Briggs, 1998; Chen, 2002; Kilby, 2001; Druin, 2001). The environment in which they conduct such peer learning has evolved over the years – from the same bench in the library or cafeteria, to the virtual community accessible through a computer. In the latter scenario, they do not see each other, but interact with each other by means of communication tools (Khoo et al., 2002). The role of libraries in providing instructional support has changed to one of a more dynamic nature in recent years – developing new digital resources and services for the purposes of distance learning, teaching aids, or support for the academic faculties in students’ research and coursework (Logue, 2003). Libraries are not just passive repositories of resources, but provide immense support in education.

In Viggiano et al.’s (2001) study, libraries have taken on the role of the direct educator, not only providing students with remote access to online materials, but also support services like technical help and research advice. Going further, how can digital libraries lend themselves as an environment for peer learning? Digital libraries are not just as a service to information seekers – they are potential learning environments. This chapter seeks to examine group learning dynamics and how digital libraries may lend themselves to support the peer learning process. Like Theng et al. (2001), Druin et al.’s (2001) work on the children’s digital library began using prototypes of learning by children. Druin et al. (2001) involved children and teachers as design partners and used prototypes developed through such participatory design as design contributions, the result of which is the International Children Digital Library (Druin, 2003), an educational digital library that also supports collaborative learning between children.

In Singapore, many digital libraries have evolved in education. One of the most significant implementations is IVLE (Integrated Virtual Learning Environment); developed initially by the National University of Singapore (Microsoft, 2003). At the time of writing, it is supporting more than 24,000 users in universities and schools. In a simulated learning environment here, characteristics of collaborated learning using a model of peer learning are observed. Preliminary observations could be used as a basis for future studies on how digital libraries may be used as learning environments for peer-learning groups.

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