

NetWorked Learning Systems

Herbert Remidez, Joshua S. Gottdenker, James M. Laffey, Dale R. Musser, Ran-Young Hong,
Linda Espinosa, Christopher J. Amelung

herbert@coe.missouri.edu, jsg0af@mizzou.edu, laffeyj@missouri.edu, musserda@missouri.edu,
rhe06@mizzou.edu, espinosal@missouri.edu, chrisa@coe.missouri.edu

Center for Technology Innovations in Education, University of Missouri-Columbia

ABSTRACT

New network-based learning systems are coming into use that offer the possibility of integrating curriculum support systems with student information systems as well as changing the metaphor of the Internet from library to workspace. We call these integrated and process-oriented systems Networked Learning Systems (NLS). An NLS is tentatively defined as a program or set of programs designed to operate over a network and support users as they undertake tasks or participate in processes related to learning. Computer Supported Collaborated Learning (CSCL) is one important type of process that can be enabled by NLS. Schools already have begun to adopt NLS. To adequately support CSCL in schools, it is necessary to understand the types and dimensions of networked learning systems currently available. This poster describes in detail one networked learning system, Shadow netWorkspace™ (SNS) (<http://sns.internetschools.org>), and highlights several other available networked learning systems.

Keywords

Networked Learning Systems, Shadow netWorkspace

INTRODUCTION

New network-based learning systems (NLS) offer the possibility of integrating curriculum experiences and student information systems as well as changing the metaphor of the Internet from library to workspace. Shadow netWorkspace™ (SNS) (<http://sns.internetschools.org>) is an NLS being developed by the Center for Technology Innovations in Education at the University of Missouri-Columbia (<http://www.ctie.missouri.edu>). SNS was designed to facilitate the implementation of a learning community, wherein members (teachers, students, parents, etc.) have tools for representing, organizing, sharing, and collaborating on their thoughts and efforts. Much like a personal computer's desktop, SNS provides a personal workspace for organizing, storing, and accessing files and an environment for running applications. SNS also provides the ability to create groups, and for each group to have a "group desktop" for file sharing, communication, and collaboration. These features help SNS become both an information space for organizing, storing, and accessing files and a social space in that SNS users have roles (e.g., teachers, students, parents, etc.) that structure the system interaction and are part of groups that share, communicate, and collaborate. Because SNS is web-based, teachers and students can access their workspaces from any computer that can access the World Wide Web, and partners (parents or mentors) who are unable to participate in schools because of time or distance can participate in the Internet-based workspace.

SNS is freely available to all users. It can be installed locally for a learning community, in a school building, school district, or consortium of teachers or schools collaborating to implement cross-school projects. It comes with an Open Source License ([GNU Public License](#)) and an Application Programming Interface (API) so others can develop applications for it and participate in enhancing and supporting it. Systems like SNS are somewhat primitive instances of the environments we envision for schools as learning organizations. These systems must advance through evolutionary and learning processes of their own.

RELATED NETWORKED LEARNING SYSTEMS

- Blackboard (www.blackboard.com) offers several proprietary software packages to support course delivery, portal services, and transaction processing. Blackboard, WebCT (www.webct.com), and eCollege (www.ecollege.com) are the three most popular networked learning systems currently in use by schools.
- Mimer Desk (www.mimerdesk.org) is an Open-Source groupware environment designed for a wide variety of uses such as web-based learning, project collaboration, and community support.
- SchoolMation (www.schoolmation.com) is a web-based school management system that is very management-oriented. It contains a nice grade book and course/assignment organization functions, and is freely available under an Open Source license.
- Authenticated User Community (AUC) (<http://auc.sourceforge.net/>) is an intranet system designed for use in a K-12 setting. AUC offers file transfer, email, class calendars, discussion boards, and much more. It is also freely available under an Open Source license.

- ILIAS (<http://www.ilias.uni-koeln.de/ios/index-e.html>) is a web-based training platform jointly developed by the University of Cologne, the Faculty of Economics, Business Administration and Social Sciences at the University of Cologne, the Sal. Oppenheim Foundation, and the Department of Education Science and Research of the State of Northrhine-Westphalia.

SUMMARY

New network-based learning systems are coming into use that offer the possibility of integrating curriculum support systems with student information systems as well as changing the metaphor of the Internet from library to workspace. We call these integrated and process oriented systems Networked Learning Systems. CSCL is one important type of process that can be enabled by NLS. Schools already have begun to adopt NLS. To adequately support CSCL in schools, it is necessary to understand the types and dimensions of networked learning systems currently available. This poster describes one networked learning system, Shadow netWorkspace™ (SNS) (<http://sns.internetschools.org>), and highlights several other available networked learning systems.

REFERENCES

Laffey, J., Musser, D. & Espinosa, L. (2000) Shadow netWorkspace Learning Systems Project. *Proceedings of the International Workshop on Advanced Learning Technologies*. (Palmerstown North, New Zealand), IEEE Computer Society. pp. 188-189.