

33 GROUPWARE AS RESEARCH AND EDUCATIONAL TOOLS

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In the 1990s, one of the underlying themes in higher education has been “teamwork.” Training students so they have the skills and experience of “teamwork” has been the new credo of many business schools around the world. With today’s group support technology, no longer does a group have to learn, meet, and interact in a face-to-face condition. There is now an alternative for group collaboration that can virtually occur at any place and any time without a need for physical contact. The impact is potentially transformative.

A tidal wave of dramatically innovative and highly interactive processes of learning is emerging as increasingly powerful and affordable technology spreads into the educational arena. In this tutorial, I intend to share my own involvement in computer-supported collaborative learning classrooms. The focus will be on my experience in integrating and using a selective set of groupware for the support of group interaction and learning in an electronic mediated environment. The tutorial will attempt to cover the following:

- an overview of features in a selected set of groupware that includes MIRC, TopClass, E-folio, TeamWave, and Microsoft Netmeeting with the purpose of comparing and contrasting among the features offered by these products;
- an account of how these groupware applications have been integrated and used in a classroom environment with a focus on group effects;
- a reflection on what lessons have been learned from the experience.

Overview of the Features on the Selected Groupware Applications

This purpose of this section is to familiarize the audience with the features and capabilities of a selected set of groupware. Several computer-captured screens will be shown to highlight the key functionality of the following applications: MIRC, TopClass,

E-folio, TeamWave, and MS Netmeeting. These are the products that I have used to facilitate group learning in a classroom environment.

- *MIRC*—a popular Internet relay chat that is used to conduct online group discussion
- *TopClass*—a classroom management application that provides a user-friendly teaching/learning environment for the instructor to post course materials and interact with learners
- *E-folio*—a web-based repository that allows learners to publish their work on the web and receive comments from others
- *Microsoft Netmeeting*—a PC software that supports online video/audio conferencing
- *TeamWave*—a client/server software that provides many tools for group collaboration online

This overview aims at providing the audience with a feel of how groupware works in general and an understanding of specific functionality that MIRC, TopClass, E-folio, TeamWave, and MS Netmeeting offer. More importantly, this section also aims at explaining the key similarities and differences among the features of these products.

Groupware Integration into Classrooms

This section gives an account of how the selected set of groupware is used in some classrooms. The focus is on the following issues:

- What are the motivations for using these selected groupware applications in a classroom?
- How can these tools be used to facilitate classroom learning and teaching?
- What are the change effects that these tools incur in the group learning process?

Reflection on the Learned Experience

This final portion of the tutorial provides a critical reflection on my experience as a participant and a facilitator in classrooms that have used groupware as a tool to support collaborative learning. The focus here is on the learned lessons with respect to the implementation of groupware as a change agent in an educational process. I will share some of some observations on how groupware has impacted the teaching and learning process. In addition, I will also discuss the difficulties encountered, the costs involved in acquiring the software, the resources available from the web, and the potential for using these groupware applications as an educational research tool.

About the Author

Minh Huynh is currently a Ph.D. candidate at the School of Management, Binghamton University. He is majoring in Management Information System and pursuing research in the area of computer-supported collaborative learning (CSCL). He has presented his work on CSCL at the Northeast Decision Science Institute Annual Conference (March 1998). Prior to his enrollment in the Ph.D. program, he worked for the United States federal government for four years in computer programming, system management, technical support, and network security. He earned his B.A. degree in Physics from Franklin and Marshall College and his B.S. in Computer Science from University of Maryland. E-mail: br00328@binghamton.edu