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On-line Team Project Communication Tool Set

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Abstract *- Team projects offer a valuable mechanism for effective learning. However, communication within the team, with the instructor and between different teams is a challenging task that can greatly limit the effectiveness of the learning experience. Some of the tools and concepts that are being developed for distance learning applications can be used to enhance team project communication within teams that are geographically separated as well as for in-campus teams. This article documents a set of on-line tools that allow for asynchronous team participation and timely monitoring and feedback by the instructor.*

On-line communication tools can enhance the learning environment for project teams by offering more options for effective action. There are situations in which the participants are physically separated and on-line communication offers a rapid and effective option. This allows for collaborative document development by widely dispersed team members. There are circumstances in which project members might find it difficult to get together because of time. Finally, there are also individuals that are better able to participate through on-line media than through personal meetings, therefore on-line communications enable them to participate more effectively.

The objective of this research is to test whether available on-line tools are adequate to support the communication needs of team projects. There are a number of methods and media capable of achieving these functions. For educational team projects the selected tools need to be currently available, affordable by the likely users and compatible with their systems. The tools need to be economical to produce and use, and fit within the budgets of the instructor developing them and the students who will use them. Finally, the tools need to be compatible with the equipment available to the majority of the users, who are current university students.

There are commercial products that perform many of these communication functions, but they were not chosen because of their cost. Most of these products have been developed for industrial applications and are not compatible with educational budgets.

Based on these constraints the media chosen is the World Wide Web. The text transfer is implemented through HTML forms while CGI scripts store and manipulate the information on the forms for editing. CGI scripts represent a low cost and widely compatible vehicle for communication. Since the WWW is utilized, appropriate hot links can be included to facilitate the access to additional information. The syllabus and other class information are also available in a web page to class participants and other interested parties.

This tool set consists of:

- periodic progress reports by the teams,
- documented team minutes,
- document handling for team editing,
- open communication among the team members and the other class participants, and
- communication with the instructor in the form of feedback, announcements, clarifications and requests by the instructor.

This allows for a learning experience that utilizes distributed document development either as a convenience to the participants or a necessity of geographical distribution. It also provides discipline through periodic reviews and deliverables that is particularly needed in on-line environments. It also facilitates instructor interaction through frequent and timely feedback to the teams.

To facilitate the development of these and other CGI script tools, a more detailed description of these CGI script tools is provided in:

{hyperlink http://www.umr.edu/~nystrom }. This description includes information that is specific to the UMR campus, but they may be useful to visualize how it might be done in different computing environments.

In addition, particularly useful CGI program listings are available at:

http://cgi-lib.stanford.edu/cgi-lib.pl.txt

The development of this tool set shows that these on-line tools can be used to enhance the communication capabilities of team to perform projects, using currently available resources. As the cost of commercial products that perform many of these functions decreases, on-line team project communication will become a standard part of modern education.

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