New student collaboration tools

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Pablo G. Molina, Georgetown University

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Introduction:

Learning and technology are social activities. Whether in class, remotely, or in ad hoc sessions students form study groups to collaborate. New communication systems, conferencing methods, messaging, courseware platforms, web services, portals, blogs, wikis, etc. are making this possible. What do students expect by way of service and support and what should institutions provide to facilitate this collaboration?

There seems to be a growing need for a set of technologies to facilitate and promote student collaboration. A variety of software, hardware, and services are available to do this. However, the sheer diversity of existing methods and rules makes collaboration more difficult and time-consuming than it ought to be. While an academic environment demands an open, flexible approach to collaboration systems, providing a common, simple, easy-to-use toolset is an important step towards fostering a collaborative environment. Ideally, every student should have access to the widest range of communication platforms, web publishing, and sharing systems, integrated with calendaring and scheduling systems.

Institutions and their technology departments must strive to provide communication mechanisms, virtual collaboration spaces, and support mechanisms for physical gatherings, i.e. room and resource reservation systems. To some degree, all colleges and universities support these efforts. However, the wider the gap between the institutional offerings and the needs of students, the greater the barriers to student collaboration. In some instances, institutions must find ways to ensure intercollegiate collaboration. Software licensing restrictions, authentication policies, and other obstacles can make this particularly difficult.

Microsoft’s Public Sector Account Manager, Chris Goodson recently indicated in an email exchange that “following on to the point below about the myriad options of point solutions out in the collaborative space: there are challenges—technical and user support issues, user preference and practice, and effectiveness—when multiple avenues are taken without considering an overarching strategy. Integrated solutions can lower support challenges and have a dramatic impact on the fluidity of collaborative communications as information and sharing find their way to faculty and students, in whatever form they choose/use (email, IM, asynchronous, portal solutions). Eliminating the barriers between technologies and lowering the challenges involved with user ‘points of entry’ into collaborative spaces can dramatically increase the effectiveness of solutions and their support.”
Institutions must assess how much and how well they use technology to promote student collaboration. To that end, let us consider the use of a scoring system. For each of the following categories, assign a 1 if an institution offers it and/or promotes its use among students, a 0 if the institution does not promote or hamper its use, and a negative 1 if the institution blocks it or discourages its use among students. These are the categories: blogs, wikis, courseware sites, electronic facebooks, on-line social services (i.e. eVite or Yahoo Groups), calendaring, email with self-managed email lists, SMS, instant messaging, chats, bulletin boards, web conferencing, portals (i.e. uPortal or SharePoint), digital repositories (i.e. DSpace), e-portfolios, and peer networking (i.e. Kazaa or Grokster), ad hoc collaboration systems, and room scheduling systems.

**Body:**

Below are some of technologies playing a leading role in student collaboration practices.

**Blogs**

Many educational institutions regularly use blogs. On March 2, 2005, the BBC News World Edition reported that blogging, "the technology that has been an alternative source of news to many academics is being incorporated more fully into university life. Blogs are giving departments, staff and students the freedom an informality of tone impossible in scholarly journals or even the student newspaper." According to this report, Warwick University in the United Kingdom is running one of the most ambitious blogging projects in academia, with about 2,600 users. "We believe that blogging may open new opportunities for students and staff," says John Dale, head of IT services at Warwick University. "It gives students and opportunity to work together in projects."

The Georgetown University Law Center Campus uses blogs for many purposes. One of them is the use of blogs on special research projects where many faculty and students from several institutions engage in collaborative publishing. For example, they published a web site and faculty/student blog in connection with the electoral law issues surrounding the 2004 Presidential Election.

**Wikis**

The value of using wikis in higher education is clear and more important once we consider the social dimensions of using this technology. On May 12, 2005, the Guardian Unlimited published a story on the use of wikis for collaboration: “Social Software, the conference that recently attracted 300 bloggers, social software gurus and the curious to the first European event of its kind Loic Le Meur, vice president of blogging specialists Six Apart, had floated the idea of a conference only six weeks earlier. He posted a provisional programme on the web, and mentioned it to a few bloggers. Word spread, and the conference pretty much organised itself, thanks to some Wiki-based collaboration software from Socialtext Inc.”

On March 11, 2005, The Washington Post reported that “students keep pushing for more interactivity, often in ways I hadn’t thought of yet,” according to Bowdoin College
assistant professor of English, Mark L. Phillipson. His students used a wiki to enrich a literary works posted on line with links, images, annotations, etc.

Courseware sites and derivatives
Student organizations, institutes, centers, think tanks, research teams, and study groups regularly create courseware sites or derivatives to make content available to all members and, in some cases, give certain members immediate access to disseminate information. Institutions must open their courseware systems, be those home-grown, Blackboard, WebCT, Sakai, or other to non-traditional users to foment and support student collaboration. When I asked what technology, other than email, he would use to collaborate with other students, University of Maryland senior student, Jason Wileman was emphatic: “we all go to Blackboard, post messages, use the chat services, etc.”

Web conferencing
Purdue University is a well-known adopter of web conferencing services. On a Macromedia Breeze web site customer testimonial published in the spring of 2005, Director of Digital Content, Bart Collins from Purdue University’s Instructional Development Center states that web conferencing allows them to do achieve many goals including “setting up environments where virtual teams, students can work on projects.” On the sample video segment, Assistant Professor, Sheryl Kline in the Department of Hospitality and Tourism Management claims that virtual conferencing allows students to be “able to attend, and see presentations, and give presentations to people that would not ever have been able to see it.”

Apple’s iChat services are also a popular choice for videoconferencing in educational settings. According to a piece by Peter Wayne on the New York Times on June 16, 2005, “more and more people are exploring the options Mr. Callahan has (offering classical guitar lessons over an Internet video link) as videoconferencing grows up. Faster computers and Internet connections make it possible to replace the pixelated, jerky pictures the size of a postage stamp with a full-screen image that updates as gracefully as a movie. Better microphones and sound-mixing tools offer richer and more realistic sound.”

Electronic facebooks
Student photo books are part of a new generation of social networking systems. Besides the relative success of student photo books such as the Facebook or Campus Hook, campuses such as Georgetown’s have developed their own. These systems, facetiously referred to – with surprising accuracy- as on-line dating networks, allow students to seek out each other based on academic and/or personal interests. By matching contact information with a face, the process of starting to collaborate may become easier in larger institutions.

According to a story published by the New York Times on May 26, 2005, “it is not easy capturing the attention of Jim Breyer, one of Silicon Valley's leading venture capitalists. But Mark Zuckerberg, a 21-year-old Harvard student, managed to do it with a Web site that has attracted 2.8 million registered users on more than 800 campuses since it began in February 2004.” The article describes Thefacebook.com in the following terms: “The premise--and the process--were both simple: Students wanting to join needed a current ‘.edu’ e-mail address to register without fees. They could then supply a digital
photo and create a profile of themselves. They could view one another’s profiles and, as the site spread to other campuses, those at other schools if they were accepted as a ‘friend.’ Think of individual college directories connected by--at most--six degrees of separation.”

**On-line social services**
According to its web site, there are more than 6 million unique Evite users. This organizational scheduling, invitation, and tracking service for meetings and parties allows users to create events, send invitations, and receive RSVPs with public or private comments. The web site describes itself in the following terms: “Evite is the free social-planning site featuring invitations, social networking, local information and events listing. From planning a dinner party for friends to finding something to do on Saturday night, Evite makes it easy to explore local areas, communicate, coordinate, and make decisions.”

Yahoo Groups is an example of an on-line service with great application among student groups. At the Georgetown University Law Center, the local chapter of Habitat for Humanity is one of several campus groups conducting much of their organizational business using Yahoo Groups. Students, as well as faculty and staff chapter members, frequently exchange group messages with email support, post photos, share links, work on calendars, and even use polls for governance and consultation.

**Portal sites**
Ad hoc portal sharing systems, such as Microsoft Shared Point services, are good options for collaborative work among students. Institutional portals, such as uPortal, with all of its components may also be a good approach to provide shared web spaces and resources to students.

On its Sharepoint web site, Microsoft states that: “INHOLLAND University, the result of a 2002 merger of four Dutch universities, needed new information technologies to support its Competence-based Education initiative. The university deployed a comprehensive solution based on Microsoft SharePoint Products and Technologies, Microsoft Exchange 2000 Server, and Microsoft Office XP Professional. The new interactive learning environment was quickly adopted and now provides INHOLLAND students with a more flexible, "real-world" learning experience through Digital Portfolios and other Web-based innovations.”

**Peer networking and collaborative filtering**
On March 2005, the Economist’s Technology Quarterly supplement published a piece of collaborative filtering stating that: “to find things you might like, but are not already familiar with, requires a different technology, known as ‘collaborative filtering.’” When this technology is applied to peer-to-peer services, it may yield rich academic content to groups of students everywhere. For example, according to its web site, Spain’s based MusicStrands “develops social recommendation technologies to help people discover and enjoy new music. MusicStrands uses statistical machine learning, collaborative filtering, complex network-based analysis, among others, to provide music recommendations based exclusively on the listening behavior of individuals and social networks.” These technologies could be used to share links to reference sites, foundation papers, sources, research tools, etc.
Closing:

Perhaps we are missing on using technologies that are currently available but should be harnessed for collaborative purposes. Games, particularly role playing games, may be useful to foster cooperation among students. During a management capstone undergraduate class, Saint Louis University’s Management Professor, Dr. Michael Shaner used a strategic computer game to have teams of students play other teams in a simulated market competition exercise dealing with athletic footwear. CNN reported on May 27, 2005 about an international student collaboration project to create a game. “The game, 'Descent to the Underworld' re-images the Orpheus myth in settings designed by the students, who live in Philadelphia, Beijing, Brazil, and Prague.”

It is conceivable to have future students use on-line simulations to work together. In their simplest form, there could be mathematical simulations on web sites or spreadsheets. In their most advanced forms, we can think about advanced computational, graphical, even three-dimensional environments linked by high-speed networks. The advent of more electronic and communication social services will have an impact on how students collaborate in person and on line. Institutions must monitor developments in these areas and actively craft a strategy to manage student expectations and facilitate their collaboration needs. After all, most professions requiring a college degree require collaboration among team members, and those are skills that many of us develop during our college years.