Facilitating Academic Communication and Community Building Using Weblogs: Pedagogical Considerations and Application Examples

Margaret D. Anderson*, State University of New York at Cortland

Abstract

Weblogs, or «blogs», have become increasingly popular forms of communication on the Internet. However, while many students and faculty are proficient at using weblogs for social purposes, few have experience in transferring their use to the academic setting. Pedagogical, design and implementation issues for the inclusion of weblogs in course structures are reviewed. Four models for their inclusion in open and closed systems, within and between courses, and for individual and thematic blogs, are presented.

Introduction

Students are becoming increasingly accustomed to using many forms of technology in their everyday lives. As far as they are concerned, cell phones, iPods, MP3 players and computers have always been around. These students are also very proficient at using the systems available through these technological devices: Google is their first choice for locating information; most consider Wikipedia to be the ultimate refer-

* andersdm@cortland.edu

ence authority; and they have always had music readily available for downloading. Text messaging is as natural to them as talking and, with its use, a new form of language and etiquette is developing. These are the people Prensky (2001) calls the «Digital Natives». They have always had technology as a major part of their lives and cannot imagine life any other way. However, there are still some students who are not as proficient with technology, because they either lack ready access to it or they lack the skills to use it. This inequity continues to expand the «Digital Divide» (Mehra, Merkel, & Bishop, 2004) – the gulf between those individuals with technology and skills, and those without. This division is likely to put these latter individuals at a distinct disadvantage for educational and career opportunities.

Meanwhile, regardless of their level of technological proficiency, most current educators are what Prensky (2001) would call «Digital Immigrants». They have come, willingly or hesitantly, to use these technologies later in life. For the most part, they are well aware of life before the current digital explosion; books, telephones and television were their media of choice. Now they look at the technological tools students use and feel either intrigued or intimidated by them. Often, they struggle to find ways to incorporate some of their students' preferred communication devices into their teaching. Sometimes such attempts are perceived as a transparent attempt to appear contemporary and the result is more of a hindrance than an enhancement to the course. For any new educational technology to be effective, pedagogical demands must always drive the selection of the medium (Anderson, 2001).

While students may be proficient with the technologies they use in their daily activities, few have participated in the academic application of these same systems. Even if students are able to make the leap from casual technological use to the more formal academic arena, most do not naturally alter their language and cyber etiquette to address the more formal environment. It is up to faculty to demonstrate the appropriate use of new technology in different arenas and to require of students correct and effective cyber etiquette. The inclusion of direct instruction on the academic uses of contemporary technology may not only change the «Digital Native» perspective, but may also help to reduce the effects of the «Digital Divide» in the academic arena.

Today's emerging technology offers many innovative opportunities for information exchange. These new avenues range from relatively static web sites, to dynamic one-on-one interactions like text messaging, to organic wide-open exchanges made possible by weblogs and wikis. A weblog is a series of thematic entries arranged in reverse chronological order, and appears to be one of the most rapidly developing areas of communication. The term «weblog» appears to have been coined by Jorn Barger on 17 December 1997 (Blood, 2000) and less than ten years later (October 2007) Blogpulse.com has identified at least 62,782,415 weblogs. The information in these logs may be written by the site owner, or contributed by a number of users. Whilst this medium was not initially designed for use in educational settings, it is beginning to demonstrate its value as a collaborative learning tool (Balagué, 2007).

Richardson's (2006) exploration of the range of methods instructors use to incorporate weblogs into their teaching revealed that in general weblogs are dedicated to the goal of creating virtual communities of learners. For example, weblogs might be used to continue discussions begun in face-to-face classes, or to introduce an extended opportunity for discussions which is, for whatever reason, not possible in class. They might be used in courses available wholly online to build a sense of community amongst course members. Alternatively, they might be used to create an open community of learners, where members of the community are not restricted by any physical location or system, but rather are linked by the common pursuit of knowledge in a particular domain.

Farmer (2006) identifies four pedagogical considerations for the inclusion of weblogs in education. First, he states that weblogs must be incorporated as key task-driven elements of the course; they should not be introduced and the student left to determine their use. Second, he recommends that instructors «use assessment tasks that incorporate subversion», that is, avoid making the assignment overly rigid by specifying the content or the amount of contribution required, but rather indicate that postings are expected according to an established schedule and allow room for personal expression and exploration. This provides opportunity for students to approach assignments in ways that fit them and allows for deviation and subversion of the task. Third, weblogs should

only be used for what they are good for. They are communication tools and should not be used for such things as administering surveys, polls, or quizzes. Finally, he advocates using proven and effective blogging tools. This is critical as the selection of the correct software will determine whether the desired pedagogical goals are even possible.

Given the wide range of possible academic applications for weblogs, and the ever-increasing availability of support software, instructors need to decide ahead of time why and how the system will be used. They need to identify all the players, anticipate the specific goals of the discussion, choose the actual means of communication, and determine what structure (if any) will be imposed. In addition, the sensitivity of the material to be presented and the potential privacy needs will also impact on the selection of appropriate software.

Finally, the need to determine a structural logic for the use of the weblogs before setting up the system cannot be overemphasized. Whilst the instructor can make changes to the structure in terms of designating communication groups as the course progresses, it is much more cumbersome to go back and change the designations for established posts than it is to create that designation at the time of posting.

Williams and Jaocbs (2004) reported that up until 2004 very little refereed material had been published on the uses of weblogs in education. Balagué (2007) confirms that the situation has not changed significantly in the three years following publication of the original Williams and Jacobs (2004) review. As Williams and Jacobs indicated, since weblogs can reasonably be described as a form of micro-publishing, it is understandable that the bulk of material in peer reviewed scholarly journals focuses on journalism and reporting. However, one of the strong advantages of the weblog is its versatility. The present paper describes four different academic models and reviews ways in which weblogs played a central role in delivering various pedagogical components of those models.

Procedure

In accordance with the pedagogical considerations outlined above, weblogs were incorporated into the four different cases described below. While neither the course designs nor the activities presented are

new, the use of weblog software to deliver, monitor and evaluate the activities offered many advantages not possible when using more traditional media, thus overcoming various past problems.

Materials

A wide range of software is available to support weblog activities. Some of the most familiar options are discussion tools embedded in various Course Management Systems (CMS). These tools often pose challenges for users: first, the CMS must be purchased by the educational institution; second, use of CMS software is usually limited to students enrolled in a specific course for a specified duration (e.g. one semester); third, it is not always possible to designate security levels (limit read/write privileges) within CMS software; finally, discussion systems within CMS are frequently cumbersome to use and difficult for novices to master (Anderson, 2007).

An increasing variety of weblog support software is available in the public domain and there are numerous web sites devoted to the evaluation of the weblog host sites (e.g., Hosting Review & The Free Country). Each weblog host offers different configurations that may or may not meet individual needs. After evaluating several off-the-shelf weblogging systems, LiveJournal was selected for use in the cases described below. This decision was based on the following aspects of the system: Ease of use – intuitive structure made the program easy for course developers and students to use; cost – the free version is powerful enough to accommodate most needs; security levels – LiveJournal menus allow users to designate posts as private, personal, group or public; flexibility – since LiveJournal is a stand alone program users and length of use are not predetermined; and multi-media compatibility – the ability to include graphics, images and video in the individual posts.

Academic Models

One-to-one, Two-way Communication

The first case describes the use of weblogs in a traditional face-to-face course. The course consisted of an exploration of psychologically based

careers available in schools. There were 25 students in the class, sophomore through senior, who felt they wanted to work in schools after graduation but were unsure of their exact career choices. Throughout the semester lectures and guest speakers introduced students to a wide variety of careers, giving an overview of the educational and personal requirements for each, together with information on the daily activities of school based practitioners. Students were instructed to post daily journal entries reflecting on these class presentations. It was necessary that these entries were confidential as they were intended as a reflection of the student's own personal growth. The use of reflective journals has been demonstrated to encourage students to think more deeply about their academic activities and simultaneously to allow instructors to listen more effectively (Beveridge, 1997).

Students had traditionally completed this activity in hardcopy journals. In order for the instructor to monitor students' journal entries, these hard copy booklets had to be collected, reviewed and returned. This was very labor-intensive for the instructor, and allowed students to skip daily entries or to make them up just prior to collection of their journal.

By shifting the exercise to the weblog the instructor was able to review journals at any time, thus keeping students' entries on track. The online method also allowed the instructor to review journals on an ongoing basis, rather than following a specified schedule, thus spreading out the workload. The instructor was also able to post comments to students about content or format when it appeared that these were warranted, thus keeping students' activity on target. The journaling activity was a graded component of the course, but students' entries were only graded based on completion, not on content. In this way students were able to provide an honest reflection, and so to generate a record of their growth and development during the course as they tried to formalize their career plans. Using weblogs not only allowed the instructor to observe students' growth, but also provided a valuable means of formative course evaluation based on students' reactions to daily activities.

The journaling activity employed in the present case is perhaps one of the simplest uses of weblogs in academics: a series of thematic entries written by the site owner. As diagrammed in Figure 1 the entire activity took place within a closed system consisting of only students enrolled in

the class and the instructor. In this instance each student in the class posted daily reflections to a personal space on the LiveJournal system. Students were owners of their sites and able to set the read/write parameters such that only they and the instructor had access to these daily posts. In this way the individual student and the instructor were in private one-to-one communication with a two-way exchange: students generated posts, the instructor reviewed those posts and provided individual feedback.

Multi-user, Two-way Communication

The second model employing weblogs involved three users and two-way communication among them. This case was based on a student completing her internship in school psychology at a school in a remote location. The internship required the student to complete 120 hours of supervised practicum activities under the sponsorship of a practicing school psychologist who would supervise her field activities. At the same time the student's faculty sponsor on the College campus would supervise the academic component of the internship.

The intern was required to maintain a journal consisting of three elements: Recounting daily activities, relating those activities to previ-

Figura 1. Closed system of personal communication between students and instructor using LiveJournal

C = Class members
LJ = Live Journal interface
I = Instructor
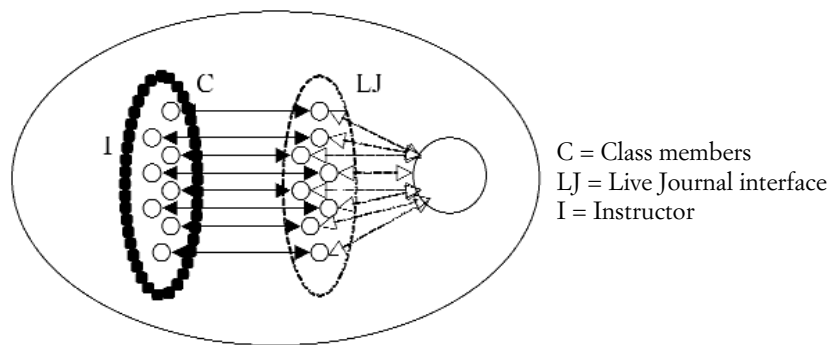
ously mastered academic content, and reflecting on the activities. Francis (1995) demonstrated that the use of these journals helped preservice school based interns develop as reflective practitioners. While the journal entries were designed to reflect the student's personal growth, it was also critical that both site supervisor and faculty supervisor were able to access them to verify accuracy of the content as well as to monitor the student's development as a result of the activity.

In the past maintaining such a journal while enabling the related flow of communication among all parties involved in the internship was nearly impossible. Hardcopy journals would not allow for the immediacy necessary to respond to any possible difficulties the student might encounter. While e-mail entries did afford immediate turn-around time, it was difficult for both supervisors to respond to them simultaneously. Further, it was not possible to maintain a running log of the student's input and supervisors' comments.

Using the LiveJournal interface to maintain the journal entries as a weblog eliminated the problems described above. The student made daily posts to her journal which both supervisors were able to review and comment upon directly. It was important that both supervisors were able to see the comments made by each other to ensure continuity in the student's experience. Using the weblog made this three-way interaction among physically separated individuals possible and provided a dynamic collaborative activity for the student and both supervisors.

At the same time the security settings of the LiveJournal system allowed the intern to restrict some posts to one or the other of the supervisors. In this way if she were having a problem at the internship site she could indicate it in her journal, accessible only by the faculty supervisor, without fear of repercussions from the site supervisor. Additionally, she was able to designate some of her entries as «private», not accessible by either supervisor. These comments allowed her to record information that she might not want to share with them, or to record other personal thoughts.

Another advantage to using the LiveJournal software as a vehicle for maintaining the reflective journal is that it allowed the intern to embed photographs and even video clips of activities from her internship directly into her journal. In this way she was able to create a valuable mul-

ti-media artifact documenting her preservice training for inclusion in her professional portfolio.

As represented in Figure 2, this case still consisted of a closed system. In this instance the system was comprised of the student intern, and the site and faculty supervisors. The student initiated all activity by posting her journal entries to her space on the LiveJournal system. She then designated who could read and respond to specific entries, thus setting the security level. The site and/or faculty supervisor (if designated) could access the postings and respond directly to them while also viewing the feedback from the other supervisor. In this way only the student had full access to all her posts, the various supervisors saw only those posts designated for them. All communication illustrated in Figure 2 centers on the journaling activity, direct communication between the individuals was conducted outside of the LiveJournal system.

Multi-group, Multi- individual, Two-way Communication

In a much more elaborate model, LiveJournal weblogs were used by students in six different linked courses to create continuous journals and other academic assignments which could be accessed by specific instructors and teaching assistants based on the content of the entries. SUNY Cortland, an undergraduate institution in New York State, is one of many colleges that use a «Freshman Learning Community» to assist students' transition into the new academic environment (Soldner, Lee & Duby, 1999-2000). The present case consists of two paired cohorts of

Figura 2. Closed system of communication among the student intern, the faculty and site supervisors using LiveJournal

SS = Site Supervisor
SI = Student Intern
FS = Faculty Supervisor
LJ = Live Journal Interface
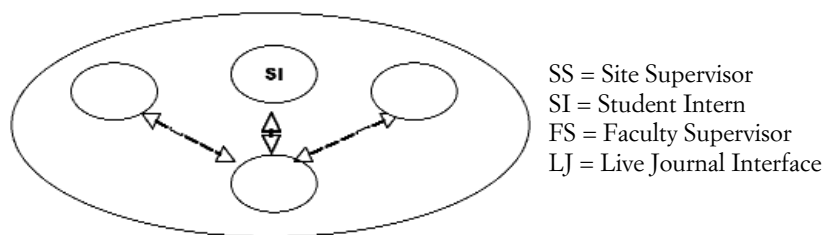
freshmen psychology majors. Each cohort consisted of twenty five students enrolled in two sets of three parallel courses. Each set of courses consisted of a section of COR, the Cortland transition-to-college course; CAP, the computer application course; and composition, CPN. These six courses were taught by four different instructors, each of whom had a Teaching Assistant (TA) assigned to the course. One instructor was responsible for both of the CAP sections and one was associated with both of the CPN sections. Each COR section was taught by a different instructor.

Following the suggestions of Jaffee (2004), who indicates that students develop a deeper understanding of academic material when concepts are introduced in one course and reintroduced and reinforced in another, the three courses in each cohort grouping included a number of assignments that crossed disciplinary boundaries. For example, writing a reflection to a class presentation in COR would be evaluated by the COR instructor and TA for content, by the CPN instructor and TA for word usage and grammar, and by the CAP instructor and TA for appropriate use of the technology. In addition, students were engaged in a semester long service-learning activity requiring daily journal posts which could also be accessed by various faculty members and TAs to track student progress and provide appropriate feedback.

Since individual assignments could be part of one, two, or all three courses, coordination of integrated activities had been extremely difficult in previous semesters. Using LiveJournal to post and track these assignments streamlined the entire process for students and instructors alike. It also expedited the evaluation process and turnaround time. In addition, it provided a means for instructors to interact with students and each other in a cross-disciplinary context, and enabled them to reflect upon each other's contributions.

The described use of the weblog in the present case required students to provide access to any or all of those evaluators who needed it, on a case-by-case basis. This required students to adapt a familiar medium – the Internet blog – by applying a logical structure to facilitate differential access by multiple users. Students had to think critically about setting security levels for accessing their postings and not to just upload random thoughts for open Internet access. In addition, they needed to

learn to apply formal rules of traditional grammar and composition to a medium where they were more used to writing in a form of shorthand or «cyberspeak». Essentially, students were taking what was familiar to them, and learning to use this in a more formal academic setting.

One useful by-product of using LiveJournal for these cohort group activities was that students were able to post images of themselves on their journals. Since many of these courses only met in person once a week, this was particularly helpful to the instructors at the beginning of the semester when they were trying to match names with faces to become familiar with the students.

Figure 3 illustrates the possible channels of communication among members of both cohort groups and instructors and teaching assistants of their related courses. The model used in this case is still a closed system, albeit a larger one, consisting of only those students and faculty associated with the cohort groups. The figure represents possible weblog activity for one student enrolled in each of the cohort groups (A and B). The student created a personal weblog in the LiveJournal system, as

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Figura 3. Closed system of communication among students in the cohort groups (A and B) and the COR, CAP and CPN Instructors (I) and Teaching Assistants (TA) using LiveJournal (LJ)
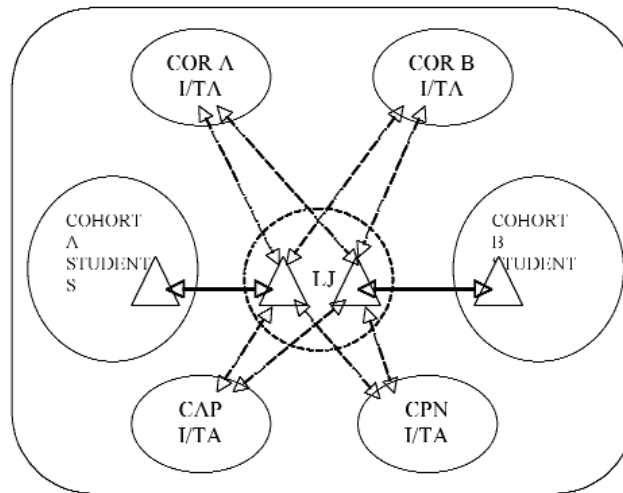
owner of that site he/she was able to set the access for the COR (Cortland transition course) Instructor (I) and teaching assistant (TA), the CAP (computer application instructor (I) and teaching assistant (TA), and/or the CPN (composition) instructor (I) and teaching assistant (TA). For cross-disciplinary assignments students set security levels to allow access by all instructors and teaching assistants as appropriate.

Multi-group, Two-way Communication

In the final case, LiveJournal was used to support the interactive communication component of a fully asynchronous online graduate course. One element of this course design required students to post weekly responses to questions posed by the instructor. Students in the class then read and reacted to their peer's posts. To encourage students to contribute honest, even controversial, opinions, only students' levels of participation in the posting process, and the degree to which students answered the specific questions, was evaluated. The actual content was not assessed.

In the past this online discussion had been accomplished using several different software applications. Initially the software used was freely available shareware. As this was in the early stages of public use of the Internet the limited security controls of the application were not a problem as there were not many unauthorized users attempting to access the discussion. As informal use of the Internet increased such open accessibility became a liability to the continuity of class activities, and the discussion component of the course was shifted to the course management system. The use of that software included all of the problematic issues discussed earlier in this paper: Difficulty of use for students and cumbersome administration for instructors; inability to span semesters or accommodate individuals not enrolled in the course; and acquisition and maintenance costs.

The use of LiveJournal software to support the class discussion eliminated those problems presented by the course management system. It was free, easy to administer and use, flexible enough to bridge traditional academic semesters, and allow the administrator to set accessibility limits.

The first three cases described in the present paper all involved a series of thematic entries written by the site owner. In those instances it was the individual student who controlled the site and determined who could access certain entries. In the final case the weblog consisted of thematic entries created by multiple users rather than the personal continuous journals of individuals. In this instance, the instructor created the LiveJournal site, posted weekly questions, and set security levels to determine who could read/write to the site. In this way the weblog discussion was able to facilitate the knowledge construction of asynchronous learning networks that Aviv, Erlich, Ravid and Geva (2007) found to be so effective in enhancing student learning.

In the «closed model» for this course design, access to discussions was limited to the instructor and students enrolled in a specific course. As depicted in Figure 4a, the instructor (I) posted a weekly discussion question on a LiveJournal site which she created (LJ). In this case she set the security level to allow only those students enrolled in the course (C) to enter the discussion. Students in the class responded to posted questions using the dedicated space on LiveJournal. Student responses to questions created the thematic weblog which other students could access and comment on. All communications among instructor and students concerning posted topics were confined to the class weblog and were not conducted directly between individuals.

The instructor was also collaborating with colleagues in two other countries who were teaching courses with some overlapping content.

Figura 4a. Closed system of communication among class members and instructor using LiveJournal

C = Class members
LJ = Live Journal interface
I = Instructor
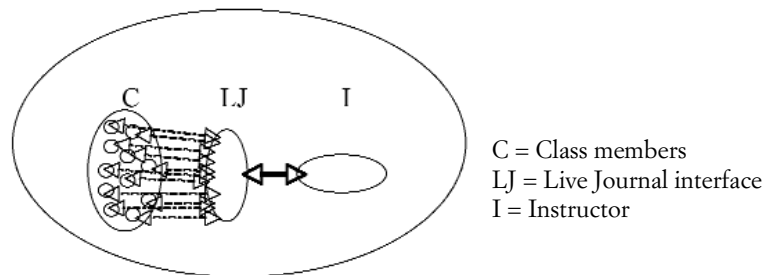
Using LiveJournal, it was a simple process to designate some weekly discussions for the primary class as well as one or both of the collaborating international classes. In this way there was a much richer interactive discussion based on contrasting cultural responses to current topics in education. At the same time, the capability to limit access to specific groups kept privacy high, thus building a sense of community and trust in communicating with a known group of peers. Similar to the previous figure, Figure 4b depicts the instructor creating a site for the specific thematic weblog on LiveJournal and setting security levels to allow access to the site by students from three participating companion classes (A, B and C). Once again, all communication occurred within the confines of the weblog topic. While the number of individuals involved in this discussion was significantly greater than that of previous examples, it is still a closed system as participation is restricted to those specified by the site owner (in this case the instructor).

From time to time it was determined that opening the discussion to the digital community at large might enrich the discussion with a broader range of opinions than those possible through the closed system. The option to remove all access limits – «going public» – is readily available

Figura 4b. Closed system of communication among multiple classes (A, B, and C) and instructor using a LiveJournal discussion site
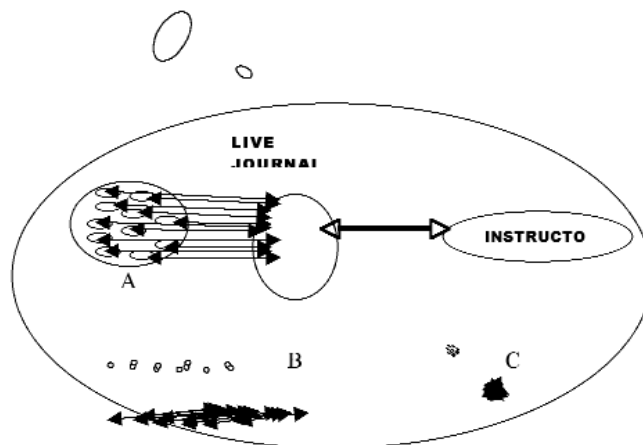
on LiveJournal, and theoretically at least, this allows participation by anyone browsing the web using relevant keywords. In this case the model consists of an «open system» as the site creator has no control over who may access and contribute to the weblog discussion.

Figure 4c illustrates the open system described above. As with Figures 4a and 4b the instructor posted a discussion «topic» to a LiveJournal weblog site. The same three courses (A, B and C) represented in Figure 4b still had full access to the site. In addition, since it is now an open site, anyone with an Internet connection could also access the discussion. The amount of involvement by those individuals could be variable, with some only reading the contents of the weblog, others contributing one post and then not returning, and others actively contributing to the ongoing discussion and receiving feedback from others involved in the discussion.

Figura 4c. Open system of communication among multiple classes (A, B and C), instructor and the digital community using LiveJournal
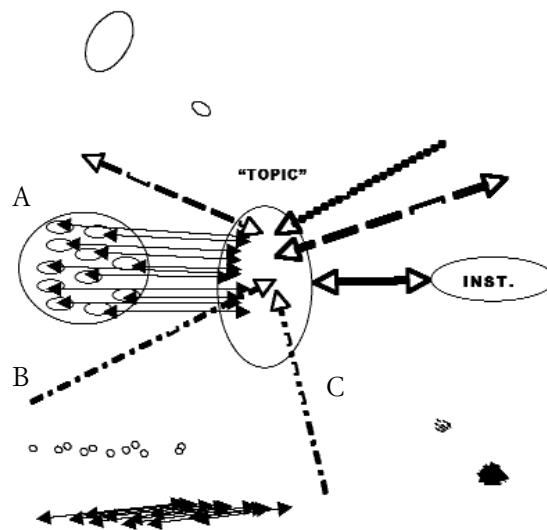
Conclusions

It is imperative that course designers focus on the pedagogy first, and then search out the appropriate technology to address the needs of the course. If the pedagogy is neglected, attempting to include the latest technological devices simply because they are «cool,» the course may fall short of participants' expectations. The academic use of the weblog, for example, needs to be appropriate to the goals of the course, rather than forming the rationale for those goals. If students see the inclusion of the weblog as contrived, rather than genuine, they may refuse to fully engage in those activities.

Richardson (2007) initially called himself a «blogvangelist», but now questions the actual impact this new form of communication is really making:

In terms of education, while there are certainly more people who are starting to consider these changes and their implications, the fact is there haven't been many inroads into serious change in the classroom. Yes, there are more and more examples of teachers and students using these tools in their practice, but the numbers of examples of students on the K-12 level whose learning is being transformed by these technologies is amazingly small, at least to me (Richardson, 2007).

This lack of impact on the direction of education may be due, in part, to the failure to fully assess academic needs and adopt technology appropriate to meet those needs.

Once the pedagogical underpinnings for weblog use in academic situations are established, instructors need to choose the most appropriate software system to meet those needs. There are a number of web host sites available that support weblogs, but all have different functions, so individual course needs will determine the best system to use. Selection criteria may include cost, ease of use; flexibility in establishing security (privacy) levels; ability to have public, group and private posts; and the ability to include graphics, images and video in individual posts. Having chosen an appropriate system, instructors must provide all participants with guidelines for establishing the correct lines of communication within that system.

The true power of the weblog is in its flexibility, and is likely to be

best realized when it is applied to the delivery of proven pedagogical elements of course design. For conventional synchronous classes, converting from pencil-and-paper based activities such as journaling to enhanced communication practices via weblogs generates improved information exchange, and offers instructors increased flexibility in administering the activity. The use of weblogs to monitor internships and other remote activities allows supervisors to collaborate fluidly and better guide the interns' activities. Weblogs and other electronic media can make discussions in asynchronous classes genuinely practical, even at the international level. Adapting these «popular» media can be pedagogically challenging, but they may enable educators to address problematic academic goals in ways not previously thought possible.

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