The Interplay of Content and Community in Synchronous and Asynchronous Communication: Virtual Communication in a Graduate Seminar

Richard A. Schwier
Shelly Balbar

Richard Schwier is Professor of Educational Communications and Technology, University of Saskatchewan

Shelly Balbar is a Graduate Teaching Fellow at the University of Saskatchewan, currently studying and working as a technology integration specialist in The Hague, Netherlands.

Abstract

A group of graduate students and an instructor at the University of Saskatchewan experimented with the use of synchronous communication (chat) and asynchronous communication (bulletin board) in a theory course in Educational Communications and Technology for an eight-month period. Synchronous communication contributed dramatically to the continuity and convenience of the class, and promoted a strong sense of community. At the same time, it was viewed as less effective than asynchronous communication for dealing with content and issues deeply, and it introduced a number of pedagogical and intellectual limitations. We concluded that synchronous and asynchronous strategies were suitable for different types of learning, and what we experienced was a balancing act between content and community in our group. A combination of synchronous and asynchronous experiences seems to be necessary to promote the kind of engagement and depth required in a graduate seminar.

Résumé

Un groupe d’étudiants de second cycle universitaire et un chargé de cours de l’université du Saskatchewan ont procédé à une expérience portant sur l’utilisation des communications synchrone (cyberbavardage) et des communications asynchrones (babillard électronique) dans un cours de théorie sur les communications et la technologie pédagogiques sur une période de huit mois. Les communications synchrone ont contribué de façon spectaculaire à la continuité de la classe, à son aspect pratique et ont favorisé un sens fort de la communauté. Cependant, elles ont été jugées moins efficaces que les communications asynchrones en ce qui concerne le traitement approfondi du contenu et des questions, et elles ont introduit un certain nombre de limites tant pédagogiques qu’intellectuelles. Nous en avons conclu que les stratégies synchrone et asynchrone pouvaient convenir à différents types d’apprentissage et que notre expérience avait été une façon de jongler
Introduction

There is no shortage of advocates for virtual communication in traditional and flexible learning in higher education (Burge, 2000; Cohill, 1997; Willis, 1994). There are also some voices of dissent (Boehle, 2000; Brook & Boal,1995; Fabos & Young, 1999), and those who specify the conditions under which online learning is likely to be successful or unsuccessful (Bates, 2000; Kowch & Schwier, 1998; Moller, 1998). But few examine the contextual experiences of learners and their uses and impressions of synchronous and asynchronous communication strategies. Our interest in this paper is to examine the use of synchronous communication in a graduate seminar, and consider how it differs from asynchronous communication. The reader should be cautioned that these observations are based on a single iteration of one course, so the observations are not intended to yield generalizable recommendations. As we write this article, a second offering of the course is underway, and it is evident that some features of this first course may be partially attributed to its particular group dynamics.

So, specifically, this article addresses the values and limitations of using online synchronous communication in a higher education. It also considers the various roles that can be played by synchronous and asynchronous online communication in such a context.

The Context

Seven graduate students enrolled in "Historical and Theoretical Foundations of Educational Technology," a graduate teaching fellow, and one professor at the University of Saskatchewan decided to experiment with using a one-hour weekly chat session in the design of the course. This course is a compulsory, year-long course that has been offered annually for ten years. Most of the students in the Educational Communications and Technology Program are part-time students who have full-time careers and family responsibilities. In addition, a number of the students live in rural communities, and attending classes on campus requires a lengthy commute for them. In order to address these student needs, the course was traditionally taught in monthly marathon sessions running Friday evenings and all day on Saturdays.

The monthly sessions demonstrated some significant limitations that became a growing concern to the instructor of the course. The infrequent meetings didn't promote the kind of vibrant interpersonal engagement that is necessary in a good graduate seminar, especially for this kind of course content. The sessions were too long in duration to introduce challenging content well. Intellectual saturation was reached well before the end of class each weekend. Graduate students, already weary from a busy work-week, found it difficult to deal with nine or ten hours of novel and challenging content.

There was also the natural human tendency for students to cluster readings and preparation within a few days of class meetings, and this mitigated the effectiveness of the face-to-face meetings. There was insufficient time devoted to reading, reflection and re-reading important course material. The instructor found that continuity was lost between class meetings, and that significant class time was devoted to re-orientation at each class meeting. The vibrancy, immediacy, urgency and community that is so important to the success of a seminar wasn't missing, but it had to be refreshed at each class meeting.
As an alternative, weekly chat sessions were combined with monthly Saturday face-to-face meetings, essentially replacing the Friday evening sessions with weekly virtual events. The chat sessions afforded an opportunity for regular contact, and a venue for discussing class content. But the sessions also permitted graduate students to experience synchronous communication first-hand, and to critically analyze its contribution to their learning - a bonus object lesson for students of educational technology.

It is worth noting that because the group was made up of graduate students in educational technology, the technical aspects of the experience did not intimidate them, and they readily mastered the routine chat functions. At the first face-to-face meeting of the class, we conducted a group orientation and chat simulation in a laboratory setting. Within a few minutes, everyone in the class was chatting freely online, and the technology became transparent. All of our observations in this course were therefore based on people who were already familiar with, and comfortable with technology, and this is important when interpreting the results. It is also important to recognize that this group was made up of highly motivated professionals who were vitally interested in the content of the course. There is little doubt that they were willing to work through small difficulties and inconveniences, without complaint, that a less dedicated, immature or unsophisticated group might not.

Sessions were organized and moderated by a senior graduate student, and the instructor participated in every session. As a rule, the moderator and instructor met weekly and chose the session topics. Assigned readings and key questions were emailed to participants several days ahead of meeting times, and students were encouraged to prepare carefully for the chats in order to get the most out of them.

At the agreed time, everyone assembled in an assigned chat room. The participants were scattered around the province at their home computer stations for most sessions, although for some sessions people logged into the chat room from computer laboratories on campus, computers at the homes of friends, and at cyber cafes in other provinces. Connections ranged from 56KB dial-up modems to cable modems and Ethernet. The class used the WebCT chat utility, which proved to be robust and easy to use. The WebCT chat tool provides access to six chat rooms, four of which keep a recorded log of transactions in the room, and two general chat rooms that are not recorded (see Figure 1). Students reported that they occasionally met outside of formal class sessions to chat, but these interactions were neither recorded nor investigated.

Figure 1. WebCT Chat Rooms.

All sessions were logged and initially posted to the group, but the postings were later removed when concerns about the security of the information arose. The instructor was copying the weekly postings and publishing them on a website that existed outside the WebCT "shell" and, therefore, outside password protection. Although the conversations were professional and cordial, there was concern among some of the students that comments might be misinterpreted if someone happened across them in a public website. A convenient solution was to post the chat logs to the bulletin board within the WebCT course shell, although we chose not to do this in favour of emailing logs to participants on request.

The initial agreement among students and the instructor was that we would give the chat approach a try, and abandon it within a few weeks if it wasn't working well. Neither the students nor the instructors had ever attempted to run a course in this manner, and we were somewhat skeptical about its potential. Professional literature on distance education pedagogy was cautious about using synchronous communication in instruction (Freitas, Myers, & Avtgis, 1998; Haefner, 2000; Murphy & Collins, 1997), and a respected and experienced instructional designer from our university's Extension Division strongly favoured asynchronous
communication strategies (Dirk Morrison, personal communication, August, 2000). The consensus was that synchronous communication was too fragmented to promote the depth of discussion required to deal with significant issues. Asynchronous communication (bulletin board) was preferred because it would allow participants to develop coherent, well thought-out arguments, and it would allow more substantive discussion to emerge. In spite of our skepticism, and perhaps because of it, we decided to see whether we could use chat sessions productively in our group.

**Contributions of Synchronous Communication**

Much to our surprise and delight, the weekly chat sessions not only made a significant contribution to our class, they actually became the signature feature of our group. Several things were identified by the group as positive, some of which might have been as true of asynchronous strategies.

Regular contact was an important contribution of the chats. Monthly meetings limit the amount of interaction students have with each other, and regular contact contributes vitality to a graduate seminar. Contact with other students was important, but another feature of the contact was that it bridged the time between face-to-face meetings, and this resulted in a more fluid treatment of the content. Posting the chat logs allowed students to review discussions, and despite the common observation that our conversations appeared very odd as transcripts, it was useful for piecing together some of the topics we discussed. Typically, more than one conversation was going on at the same time, and this can disrupt the flow of discussion. Chat logs helped.

An obvious benefit of any kind of virtual communication is its convenience. For all of the students, not merely the students from out of town, it was much more convenient to tap into a discussion from the home or office, thus avoiding the nuisances of travel and child care. It was also possible, when members of the group were traveling, to find a cyber café and participate. Beyond a few technical problems with connections, it was a welcome feature of the chat sessions. Finding a common time for people to meet was not as convenient, however, and we found that even with a group as small as ours, it was difficult to find a common hour when we could meet each week.

We did find that the regular chats provided a forum for professional discussion and enriched learning. A large part of the enrichment came in the preparation for chat sessions. It was of benefit to students to have a regular pace for the content, and the weekly virtual meetings introduced a welcome reminder to read and prepare regularly that was sometimes neglected in the once-monthly sessions. The chat rooms provided a safe forum for students to explore ideas. In the first meeting of the group, we discussed online protocol for the sessions, and chief among the rules was to treat each other with respect. It was agreed that we engage ideas ruthlessly, but engage each other gently.

All of these benefits might be attributed as easily to asynchronous communication. A bulletin board could offer the same contact, convenience and enrichment as the chat sessions provided. But the chats gave the experience additional value, something that we suggest was a sense of community. By meeting in real time, there was a feeling of urgency and immediacy. Chat sessions were characterized by dynamic exchanges, and there was often passion about an issue expressed that generated an equally passionate
response. Students and instructors alike were energized by the discussions, and it was not uncommon for participants to continue their discussions via email or on the bulletin board after the scheduled chat session ended. Students felt a connection with their graduate program, not just with the class, and it appeared that very real relationships grew out of the virtual discussions. We have no way of judging whether this would have happened without the chat sessions, but there is little question that the chat sessions contributed to the development of personal and professional relationships.

**Limitations of Synchronous Communication**

Of course, chat sessions have limitations, several of which are specific to this medium. Some limitations were related to the technical skills of participants. Keyboard input limited the speed of interaction, and writing skills influenced the quality and amount of contribution. We found that it is difficult to exchange ideas as quickly as with face-to-face instruction. At the same time, the discussion typically moved very quickly from topic to topic. There was a significant difference in typing skills and the amount of discussion by participants. Fast typists were able to engage more often and spontaneously; slower typists were less likely to participate fully.

Every member of the group experienced the frustration of typing an elaborate response to an exchange, and by the time it was finished, the conversation had moved to some other topic. Many of us "ate our words" regularly. In a few cases, typically when we were discussing novel or difficult content, some students felt isolated by the difficulty of trying to do so many different types of things simultaneously: processing the ideas presented by others, thinking about a response, composing a response, and typing a response. It was very evident that any of these steps introduced a potential barrier to communication. Students commented that they felt like they often ran out of time to respond, and that the conversation moved more quickly than their typing skills. This condition improved over the course of the year, as students became more tuned to the speed of the visual environment, and as they developed skill employing short cuts and abbreviations to express common phrases and ideas (e.g. LOL = laughing out loud; cul8r = see you later).

Other limitations were related to the nature of the medium itself. Synchronous communication invites confusion among participants. For one thing, threads of conversations were difficult to follow, especially when there were several dyadic conversations occurring at the same time. A single chain of argument might be "interrupted" by another argument several times, and it required concentration and tenacity to follow a single thread of conversation from the beginning to end. To an outside observer, the conversation in a transcript would appear chaotic and meandering; but to a seasoned participant, several parallel discussions emerged. Another limitation was the lack of nonverbal cues, and the difficulty interpreting the intentions of each other. Chatting is spontaneous by nature, and this spontaneity doesn't allow participants to craft clear prose, so subtleties were sometimes lost or misinterpreted. Over time, participants became much more skilled at using the medium. We learned to direct responses by name to specific people. We described our intentions and qualified our prose more explicitly as time went on by including descriptors and emoticons (e.g. sarcasm, irony, just kidding, grin).

There were also a few technical glitches. The chat application we were using (WebCT v.2.1) functioned very well generally, but required browsers that supported the Java protocol employed. We also found that joining a conversation from some cyber cafes caused system disruptions. But for the most part, participants were able to solve or tolerate any technical problems they encountered. Of course, it is worth observing that these were all graduate students in educational technology, so they were not strangers to this type of challenge. Even small
technical problems might disrupt less sophisticated groups of learners.

**Suitability of Content**

Early in the year we discovered that the success of our chats was dependent on the content chosen. Chat is effervescent, and it thrives with content that inspires natural debate or passion. Chat seems to work well for topics that generate heat in much the same way as good conversation at a dinner party. Mutual respect and courtesy are important, but topics that invite long, deliberate and dispassionate responses didn't seem to suit our use of the medium well.

It was also important to organize the chats, but not over-structure the discussion that emerged. It was best for the moderators to be poised with a few good questions or provocative statements that they could use when conversation waned. It was also important for the moderators to request clarification or elaboration from participants.

We found that the bulletin board was a welcome companion for our chats. First of all, asynchronous communication was well suited to the drier content and content that required reflection. It was a useful place to deal with topics that arose in the chat sessions, but that required careful attention, or that were outside the mainstream of conversation. It was not uncommon for the moderator to suggest that participants continue an idea on the bulletin board after the chat.

The bulletin board was also a useful place to introduce content prior to a chat. In one case, we asked participants to read some material on radical behaviourism and then describe on the bulletin board some occasions where they had seen examples of behaviourism used in their professional lives. Our concern was that strong and entrenched opinions about behaviourism might interfere with our study of it, so it seemed reasonable to move the first part of the discussion to the bulletin board, where thoughtful deliberation was more likely to happen. Following the postings to the bulletin board, we moved to a chat session to discuss the experiences. The deliberate preparation using asynchronous communication led to a considerate and reflective chat session on the topic, and the discussion didn't contain the invective that characterized discussions of behaviourism in previous years.

Asynchronous discussion was also useful for discussion forums. At one point, our group was joined by Dr. Katy Campbell from the University of Alberta to discuss her work on gender issues in instructional design. The bulletin board was well suited to handle a wide-ranging discussion that occurred over the course of seven days. We suspect that a chat session would have been too chaotic and brief to allow our guest to raise and respond to issues fully.

It was also evident that there were individual preferences for either synchronous or asynchronous communication. Some participants were energized by the chats; others were somewhat intimidated by them. Some participants enjoyed the space available on the bulletin board to expand an idea and invite debate; others treated the bulletin board more like a writing assignment than a conversation.

**Instructor Influences and Observations**

The instructors learned a number of valuable lessons over the course of the year about how to organize and conduct synchronous communication in a class such as this. First of all, it is important to underscore that this
was a small graduate seminar. The participants were all very intelligent, highly motivated professionals in educational technology. Our experiences are limited to this context and we do not presume to offer universal principles. We suspect that a good deal of the success we had with this approach was the result of the characteristics of the participants. They were a vocal, social and supportive group from the beginning of the class to the end, and we suspect that they would have made the best of almost any technology employed. With that in mind, we offer a handful of observations.

Organization is critical. Good chats need to be planned carefully. The moderator and instructor met regularly to debrief that week's online session, and to plan for the upcoming session. When we felt that interest was waning, we tried to find a topic that would elevate interest. When chats became volatile, we introduced topics and strategies to focus the discussions. Every week, we announced the upcoming topic and reading, and gave participants some structure for the chat session. We were inventing this as we proceeded, so it was not convenient to issue a list of upcoming topics for the year. But, in retrospect, it was probably better to issue the assignments weekly. This allowed us to focus attention on the immediate topic, and it gave a sort of vibrancy to the experience.

Be flexible. Be ready to move in whatever direction the chat may lead. There is very little control over the direction of a conversation, and any direction needs to be gentle. As much as you want to organize the topics and provide structure, it is equally important to avoid over-organizing the chat.

Facilitation is an art. Invite participation. There will inevitably be some people who are more vocal than others in the group. Be prepared to nudge some people to join the conversation or offer their thoughts. Just as with good classroom discussions, we found ourselves most often directing traffic, asking for examples or explanations, and redirecting questions and observations to other group members.

Students pass notes, even in virtual classrooms. Yes, they do. After several sessions, we found that a couple of students were using a "private messaging" facility to whisper to each other during public chats. Once we found out, everyone wanted to find out how to do it, and soon everyone was sending private messages to each other. These "side-bar" conversations were sometimes related to the content of the chat, but often they were just small social conversations between students. Our first impulse, as instructors, was to consider them distractions for some of the students, and indeed they sometimes were. But they also offered additional texture to the chat environment, and contributed to the development of community in the class. They lessened the sense of isolation, particularly for students who felt overwhelmed by parts of the content. Next year, we will teach people how to send private messages, and encourage them to use the feature.

Don't intrude. The instructor and moderator have significant influence on the substance and direction of discussion. We found it was important not to impose our own opinions or to become the sources of answers to issues raised. Initially, the instructor announced that he would operate as a "lurker" to deliberately encourage discussion among participants. Soon, this posture was abandoned, when it was apparent that participants had taken ownership of the discussions. For the remainder of the class, the instructor was able to participate in the discussions without disrupting the flow of conversation.

Push the limits. For a class dealing with theory, it seemed like a considerable risk to use synchronous communication to discuss challenging content ideas. Colleagues, and most of the literature we found, recommended asynchronous communication and cautioned us about the limitations of chat sessions. While the advice was sound, one of the most enjoyable aspects of this experience was that it was experimental. Going
into the year, we knew very little about what to expect from the technology, the strategy, or each other. It was a learning experience from beginning to end, and we were constantly challenged to try new approaches and change decisions we initially made. It was collaborative from the start, and it challenged all of us to communicate in ways that were unfamiliar to us. The experimental nature of the work, and the novelty effect of the technology, increased our enjoyment of the experience and also demanded that we invest carefully every week in the course. It had the effect of propelling the content, despite the limitations we mentioned to dealing with content deeply. Our advice is to enjoy the ride.

Post Script

In all, we have learned to value the motivation of learners to overcome any limitations of this technology. These students were motivated to learn the content and get practical experience with this medium. They were also motivated to make this approach work in lieu of attending additional classes on Friday evenings. Despite advice to avoid using online synchronous communication technology, it was a satisfactory solution for us under these circumstances. The limitations mentioned earlier in this paper (skill requirements, the confusing nature of the medium, technical glitches, the nature of the content) were considerable. Any success we achieved was probably despite the technology, not because of it. Our students transcended the limitations of the medium and the cautions of experts and they constructed a meaningful learning environment. The virtual learning community that emerged reinforces the idea that motivated learners are able to make meaning and to shape their own learning environments.

Despite our satisfaction with the outcome, we are cautious about recommending online synchronous communication to others. At the very least, we suggest that our chats contributed more to a development of community in the class, and that asynchronous strategies allowed for greater reflection and depth. We understand that our positive outcomes were situated in this context, and we question whether we will be able to replicate the experience. But then, another seminar starts in September, and we cannot resist the temptation to find out.

Acknowledgement

The authors gratefully acknowledge the contributions of Kelli Boklaschuk, Kevin Caisse, Ruth Cey, Thelma Cey, Mary Dykes, Sharon Porterfield and Ivan Tam to the ideas presented in this paper.

References


© Canadian Journal of Learning and Technology

ISSN: 1499-6677