

Barriers to online critical discourse

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Abstract This qualitative case study illustrates barriers to informal argumentation and reasoned debate, i.e., *critical discourse*, in online forums. The case is the computer conference of a 15-week, graduate-level humanities course offered entirely at a distance. Twelve students, all with families and careers, were enrolled in the course. We read all messages as they were posted and interviewed five of the students several times during the course. The students provided three insights into our interpretation that the forums contained little critical discourse: (1) The students did not orient to the conference as a forum for critical discourse, and worse, they had competing orientations; (2) they perceived critiques as personal attacks; and (3) they realized early on that critical discourse was a bothersome means to obtain their participation marks. Certain practices may ease some of these difficulties, including (1) well-structured learning activities with clearly defined roles for teachers and students, and (2) a method of assessing students' participation that reflects the time and effort required to engage in critical discourse.

Keywords Critical discourse · Higher education · Computer support
for collaborative learning

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Computer conferencing first appeared in higher, distance education settings over 20 years ago. Efforts to prescribe a role for the technology, however, continue. With equal conviction, it is presented as a forum for collaborative meaning making, informal argumentation, group problem solving, emancipatory dialogue, dialogue journaling, or

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relational communication, (respectively, Boyd, 1987; Fisher, 1996; Gunawardena, Lowe, & Anderson, 1997; Jonassen, 1996; Marttunen, 1992; Rovai, 2001). In this article, we examine one particularly prominent view: that of computer conferencing as a forum in which critical discourse (i.e., reasoned debate, argumentation) leads to critical thinking. In this view, students articulate cogent arguments and deliberate over the arguments of others, thereby developing robust and nuanced understandings of course topics. Though many commentators forward this view, empirical support has been uneven. Two decades of observation indicate that students rarely engage in the communicative processes that comprise critical discourse, and in the rare cases when they do they do not achieve the purported outcomes (Veerman, Andriessen, & Kanselaar, 2000).

In this study, we look to the participants' experiences of computer conferencing for insight into these issues. Participants' understandings have been largely overlooked in a body of research that privileges analysts' preconceptions about what is relevant, salient, and problematic about online discussion. Our paper begins with a review of the literature on mediated critical discourse in higher, distance education. The review is brief, leaving room for an in-depth description and interpretation of our qualitative data. Readers can find a comprehensive review in a previous publication (Rourke, 2005).

Literature review

Discussion, as a learning activity, is an enduring feature of higher education. There are several explanations for this, beginning with the recognition that it is an important part of intellectual work. As Weedman (1999) has shown, few scholars, artists, or professionals can produce their work in solitude; they need the give and take of discussion and debate with their peers in order to develop their ideas. In the educational domain, a wide range of scholars offer accounts of the role of discussion in a diverse set of outcomes, including cognitive development (Perret-Clairmont, Perret, & Bell, 1989), higher-order thinking (Vygotsky, 1972), conceptual change (Chi, Bassok, Lewis, Reimann, & Glaser, 1989), emancipation (Mezirow, 1990), practical competence (Orr, 1996), epistemic development (Belenky, Tarule, & Goldberger, 1997), and understanding (Gadamer, 1989). Hence, discussion is a venerable learning activity in higher education.

Until the introduction of teleconferencing, unfortunately, this type of instructional activity was unavailable to distance learners. Distance education theorists, such as Holmberg (1983), treated the issue metaphorically and wrote about *simulated conversations* between students and exoteric course materials. Others contrived definitions of *interaction* as something that occurs between students and peripheral devices; for example, clicking a mouse when presented with response options (cf. Wagner, 1994).

Few were persuaded by these contortions, as evidenced by the enthusiastic and widespread adoption of teleconferencing applications once they were available. Foremost among this set of applications is computer conferencing, a form of teleconferencing that is inexpensive, simple to use, and supportive of the anytime-anywhere use that draws students to distance education.

Since its introduction to higher, distance education settings in the mid 1980s (Harasim, 1986, 1990; Hiltz & Turoff, 1993; Mason & Kaye, 1989), there have been continuous questions about the best way to use this communication technology for teaching and learning. These include questions about the types of communicative activities students should engage in, the roles and responsibilities the instructor should fulfill, and the types of learning outcomes that can be anticipated.

From the list of possibilities referenced in our introduction, we find it useful to induce two general configurations of the role of online discussion in higher, distance education. The first set are *dialogical*, a term we chose in order to invoke themes developed by Bakhtin (1981). Themes such as *heteroglossia*, *polyphony*, and *dialogism* point up the unfinished, co-constructed, and centrifugal nature of the world and our knowledge of it. Within the distance education literature, authors such as Gunawardena (Gunawardena, Carabajal, & Lowe, 2001; Gunawardena et al., 1997; Gunawardena & Zittle, 1997), Wegerif (1998), and Pena-Shaff (Pena-Shaff, Martin, & Gay, 2001; Pena-Shaff & Nicholls, 2004) have developed models of computer conferencing that embody these themes. Across the models, the role of the instructor is that of a discussion facilitator or moderator. Rather than instructing students or guiding them to correct interpretations of texts, their job is to establish a welcoming environment, encourage participation, and deflect interaction away from themselves toward other students. For their part, the role of the students is to build rapport and camaraderie, share relevant anecdotes and interpretations, and explore issues.

The second set of models, the one we focus on in this article, are *dialectical*. We choose this term to evoke the thesis–antithesis–synthesis structure that has been transposed onto educational discussion. In this context, one student proposes her analysis of a course reading, a second student offers a counter-proposal, and through reasoned, reflective discussion, they come to a more sophisticated, higher-level synthesis.

Across this set of models, the general attitude prescribed for participants in computer conferencing is agonistic. Toulmin's (1958) model of argumentation, in fact, is commonly used as a rubric to guide and assess student participation (Carr, 1999; Cho & Jonassen, 2002; Davis & Rouzie, 2002; Jonassen & Kwon, 2001; Leitao, 2000; Marttunen, 1992; Schaeffer, Engel, McGrady, & Bhargava, 2001).

The model has roots in socio-cognitive conflict theory (Doise & Mugny, 1986; Perret-Clairmont et al., 1989), which itself is descendant from Piaget's cognitive conflict theory. Piaget argued that learners actively create or construct meaning in an effort to bring coherence to their experiences. Cognitive conflict, perturbation, and dissonance are some of the key catalysts in this process. Whereas Piaget (1977) originally conceived of cognitive conflict as largely a solitary process precipitated by an individual's interaction with the concrete world, socio-cognitive conflict theorists emphasize the importance of social interaction as an impetus for cognitive conflict and growth.

This position was developed by Doise and Mugny (1986), who argued that knowledge is motivated, organized, and communicated in the context of social interaction. In their studies, individuals operating on each other's reasoning became aware of contradictions between their logic and that of their partners. The struggle to resolve these contradictions propelled individuals to new and higher levels of understanding.

The well-documented success of Doise and Mugny (1986) and Perret-Clairmont et al.'s (1989) work spurred the production of prescriptive models of classroom discussion developed specifically around the assumptions of their theory and the interaction structures of informal argumentation (e.g., Azmita & Montgomery, 1993; Berkowitz & Gibbs, 1983; Kruger & Tomasello, 1986; Maitland & Goldman, 1974).

Throughout the adult and distance education literature there is a preference for this type of educational discussion. Brookfield (Brookfield, 1987; Brookfield & Preskill, 1999), for instance, a strong proponent of discussion as a learning activity in post-secondary education, champions the dialectic disposition. He tells discussion facilitators:

One of the most difficult (but essential) tasks of the facilitator is to develop a culture in which adults can challenge one another and can feel comfortable being challenged.

Without this, teaching-learning encounters run the risk of becoming nothing more than exchanges of opinion with no element of challenge or willingness to probe the assumptions underlying beliefs, behaviors, or values. What is valuable is the expression of differences in an atmosphere where challenge and dissension are accepted as part of the educational process. (Brookfield, 1994, p. 64)

Evans and Nation (1989) present a similar argument to distance educators. Discussion does not enhance learning, they begin,

If students are not compelled to argue the strengths and weaknesses of competing theories; if a choice between them is considered a matter of private conviction rather than public justification; if the substance of opinions is regarded as separate from the substance of arguments for and against them; if debate, through which the compulsion to support or reject views is secured is made secondary, and holding views is treated as more significant than sustaining them through argument (p. 134).

The topics we have been building up so far—dialectical forms of discussion, higher education, and distance learning—are pulled together by Garrison (Garrison & Anderson, 2003; Garrison, Anderson, & Archer, 2000, 2001), who also adds the final piece of context for our case study: computer conferencing. In 2000, Garrison et al. presented an influential model of computer conferencing's role in higher, distance education. At the core of their complex model is the process of *critical discourse*. For a computer conference to serve as an educational environment, they argue:

...it must be more than undirected, unreflective, random exchanges and dumps of opinions. Higher-order learning requires sustained critical discourse where dissonance and problems are resolved through exploration, integration, and testing. (Garrison et al., 2001, p. 15)

An operational definition of critical discourse emerges in the rubric Garrison et al. (2001) developed to assess students' participation in conferences. At the upper end of their hierarchical rubric are conversational actions such as *challenging others' interpretations*, *supporting conclusions with evidence*, and *developing evidentiary hypotheses*. Contributing to the definition are the responsibilities they assign to instructors: *identifying areas of disagreement*, *seeking to reach a synthesis*, *focusing the discussion*, and *diagnosing misconceptions*.

That educational discussion is—as it should be—dialectical in its interactional structure, agonistic in spirit, and reasoned, reflective, and progressive, seems a fait accompli. Unfortunately, the two decades of systematic observation that have accompanied the use of computer conferencing in higher, distance education provide little support for this model. Using labor-intensive data collection and analysis techniques, which typically involve classifying each locution produced by each student through the duration of a course, researchers often find results similar to Marttunen's:

Results reveal that the interaction between students turns out to be mainly non-argumentative in nature: only a small percentage of students' references to each others' texts express opinions opposed to those of fellow students, and only a smaller fraction indicate grounded disagreement. The results suggest that the pedagogical aim of our studies, to engage students in argumentative interaction, is not realized very well. (1998, p. 397)

From a catalogue of similar quotations, we selected this one from Marttunen because of his sustained program of research in this area (Marttunen, 2004; Marttunen, 2003b; Marttunen, 2002; Marttunen, 1998; Marttunen & Laurinen, 2004; Marttunen and Laurinen, 2003a; Marttunen & Laurinen, 2002; Marttunen & Laurinen, 2001; Marttunen, Laurinen, Hunya, & Litosseliti, 2003). His results are not unique (Bonk & Cunningham, 1998; Bullen, 1999; Davis & Rouzie, 2002; De Laat, 2001; Gunawardena et al., 1997; Gunawardena et al., 2001; Jeong, 2004; Kanuka & Anderson, 1997; Lopez-Islas, 2001; McLaughlin & Luca, 2000; Pena-Shaff et al., 2001; Pena-Shaff & Nicholls, 2004; Rovai & Barnum, 2003; Thomas, 2002; Wilson, Varnhagen, Krupa, Kasprzak, Hunting, & Taylor, 2003; Yakimovicz & Murphy, 1995).

At this point, we wish to clarify our thesis. We recognize that many students and instructors enjoy their conferencing experience, report that it enhances their learning or teaching, and look forward to participating in more conferences. These findings are well documented in the literature (Buckingham, 2003; Gabriel, 2004; Gray, 2004; Naidu & Oliver, 1996; Stacey, 1999). Our argument is that there is little empirical evidence of critical discourse or its projected outcomes.

This problem has not gone unnoticed, and researchers are looking for explanations. Efforts are coalescing on a few topics, including (a) the communicative characteristics of the asynchronous, textual medium; (b) the skill and energy of the moderators of these forums; (c) the validity of the prescriptive models, and (d) the learning activities that are implemented with this technology (Ellis & McCreary, 1985; Fang, 1998; Gerber, Scott, Clements, & Sarama, 2005; Hawisher & Pemberton, 1997; Heller & Kearsley, 1995; Heimstra & Sisco, 1990; Hiltz, 1990; Irvine, 2000; Jiang & Ting, 1998; Koschmann, 1996; Mason, 1991; Ruberg, Moore, & Taylor, 1996; Smith, 1994; Tergan, 1997; Tolmie & Boyle, 2000; Wolfradt & Doll, 2000).

One potentially enlightening avenue, however, has not been pursued sufficiently: a sustained effort to understand the students' experiences of critical discourse in computer conferencing. "Why is such an effort important?" asked Becker, Greer, and Hughes (1995) in a classic educational case study:

We should study students' views of their own experience because it is the best way to find out what influences those features of student behaviour we are interested in. If we do not see it as they do, we will not understand what they do. (p. 2).

Burbules and Bruce (2001) pick up on this theme up and apply it to discussion scholarship:

Justifications for the use of dialogue in teaching tend to arise from a priori assumptions that may or may not have been tested against practice. As a result, the prescriptive tradition has often neglected the ways in which idealized forms of interaction either may or may not be feasible in certain circumstances, or may have effects contrary to their intent. In general, there has been a desire to insulate the prescriptive model of dialogue from the conflicted rough-and-tumble of discourse generally. (p. 431)

Our study began with concerns similar to these. The literature we were encountering did not resonate with our experiences as instructors and students using computer conferencing for teaching and learning. As users, we could not recognize the communication tool that was presented in decontextualized, logical prescriptions. Particularly foreign-sounding were the deterministic relationships being drawn between media characteristics and user behavior. We were surprised to read, for example, that asynchronous communication fostered reflection and deliberation; that textual communication supported articulate, cogent

exchanges, and that the combination of these qualities leads to democratic dialogue (e.g., Feenberg, 1987; Garrison et al., 2000; Harasim, 1990, 1986; Kaye, 1992; McComb, 1993). The purpose of our study is to join a small but growing group of others in that effort (Burge, 1994; Burniske, 2004; Conrad, 2002; Eastmond, 1995; Gilbert & Driscoll, 2002; Gray, 2004; Ku & Lohr, 2003; Moallem, 2003; Stacey, 1999; Walsh, Gregory, Lake, & Gunawardena, 2003). We hoped, as Becker et al. (1995) suggest, that an understanding of the students' experiences would provide insight into the lack of online critical discourse that is widely documented throughout the literature.

Materials and methods

Research perspective

We conceptualize the study from within the naturalistic paradigm. Frey (1994) presents six assumptions of this paradigm: (1) realities are multiple, constructed, and holistic; (2) knower and known are interactive and inseparable; (3) only time- and context-bound working hypotheses are possible; (4) all entities are in a state of mutual simultaneous shaping so that it is impossible to distinguish causes from effects; (5) inquiry is inherently value bound; and (6) the individual self is often divided and fragmented. Since the mid 1980s, these assumptions have come to provide an important basis for research on communication technologies such as computer conferencing (e.g., Frey, 1994; Orlikowski, 1992; Orlikowski & Barley, 2002; Orlikowski & Summer, 2002; Poole & DeSanctis, 2004; Weick, 1990, 1993).

Clearly, the ontology and epistemology reflected in these assumptions are different from those reflected in the assumptions of post-positivistic inquiry (cf. Cook & Campbell, 1979). Appropriately, a different process of inquiry emerges for naturalistic inquiry. Chief among a list of differences is the following: The data collection and analysis choices the researcher makes are not guided by a desire for the study to culminate in generalizable laws about the phenomena under investigation. Instead, the decisions reflect the desire to gain insight into phenomena that are not adequately understood. Whether or not these insights extend beyond the case is left to the judgment of the reader. To make this judgment, readers need to be given sufficiently rich descriptions of the salient aspects of the case.

We think our literature review reveals that some important aspects of online discussion are not adequately understood. One response to this, for which naturalistic studies are particularly useful, is to generate new maps of the conceptual terrain based on the participants' experiences and understandings. Sometimes these experiential constructions provide persuasive empirical evidence for existing theories; other times they contradict our suppositions and prompt us to revise and enhance theory. Either way, they advance our understanding (Campbell, 1975; Hamilton, 1980; Kemmis, 1980; Stenhouse, 1984, Yin, 1984).

Research design

A fundamental form of naturalistic research is the case study. Merriam (1998) defines a *case study* as "an intensive, holistic, description of a single instance, phenomenon, or social unit" (p. 21). Stake (2000) discusses three types of case study—*intrinsic*, *instrumental*, and *collective*. We initially envisioned an instrumental case study: Our main interest was with learning through online discussion, and we thought that our case would be generally

reflective of this process. As we proceeded with the study, however, the issue that stood out for us was the uniqueness of each participant's experience (this issue is explicated in the *Findings* section). Rather than fighting to amalgamate their experiences into one generic account, we found ourselves collecting and analyzing data in a manner that emphasized the case's and the participants' exceptionality. In the end, the report is more like a collection of five unique case studies.

Selecting the case

Qualitative researchers select cases using a purposive sampling strategy rather than one that is random. The goal is not to find a situation that is representative of all such situations, but rather one that is maximally informative. In this study, our objective was to find a computer conference that provided us with the best opportunity to witness high quality online discussion. Based on our review of several bodies of literature, including literature on epistemic development (Duell & Schommer-Aikens, 2004; King & Kitchener, 1994), ways of knowing (Belenky et al., 1997; Bruner, 1990), and the cultures of learning across the academic disciplines (Donald, 2002), we selected a graduate-level course in the humanities. Because our concern was with distance learning, we selected a course that was offered entirely at a distance. The boundary of the case was the computer conference that was a central component in the course. Twelve students enrolled in the section of the course we studied, and two withdrew within the first month. Throughout the study, we worked with five of the remaining students who volunteered to participate in all elements of the data collection process. All five had families and careers; three were male. Later, we offer richer descriptions of our participants.

Data collection

Our data collection techniques were observation and interview. Observations focused on the computer conference. We read the participants' contributions to the conference at least three times per week from beginning to end and we saved transcripts of weekly conferences for subsequent readings and analysis.

Interviews began with the instructor, who we visited at the outset of the project. With an open-ended interview, we tried to ascertain how he had constructed the role of computer conferencing in this course and, in general, the role of dialogue and interaction in post-secondary distance education. We wondered whether he would speak of computer conferencing as a communication technology or an instructional methodology. We wondered if the instructor would use classroom or face-to-face analogues in reference to the computer conference. Subsequent questions depended on how the instructor conceptualized the phenomenon. Some were directed at discerning the instructional design ideas that he had for the conference and assessments of how it had worked in the past, how it was working now, and his attributions for these assessments.

Unfortunately, contact with the instructor was intermittent throughout the study. Because he was teaching multiple sections of the course and performing several duties as an administrator in the program, we were not able to meet as often as we had agreed at the outset of the study. After two, 1-h interviews, we exchanged brief emails for the balance of the course.

We also conducted three telephone interviews with the five students. Each of the interviews, which we recorded and transcribed, ranged between 60 and 90 min. Due to delays in obtaining approval from the institution's ethical review board, the first set of

interviews occurred when the participants were completing their first month in the course. There was an increasing amount of focus and structure from the first to the third set of interviews. Generally, these interviews had a *grand tour* format (Spradley, 1979), in which we gave prompts such as “Take me through a typical day.” During this interview, we also collected biographical information about the participants that related to their presence in the course. The second set of interviews occurred approximately one month after the first. At this point, we asked questions about events that we were observing in the conference. We asked them to talk about specific messages that they and others had posted, to offer their explanations of what they were doing, and their interpretations of what others were doing. The third set of interviews occurred during the last month of the course. The purpose of these was primarily to have the students comment on the interpretations that we and the other participants were forming of happenings in the conference. We also asked them to confirm the information that they had provided in earlier interviews.

During the weeks that separated the interviews, we emailed each of the participants several times. These correspondences served three purposes. First, we used email to engage in the member check process that is required after interviews have been interpreted. Second, there were several occasions when we wanted to ask about a specific exchange that had occurred in a conference while the incident was fresh. Third, we used email to share our developing constructions of what was happening in the conference with the participants. In total, we exchanged 97 emails with the five students and the instructor from the time the first interview was conducted to the time the course ended.

Data analysis

Once we conducted an interview, our first analytical step was to listen to it a few times and prepare a transcript. During this phase, we made marginal notes and did some provisional coding. Quickly, our analyses became microscopic in a process that grounded theorists call line-by-line analysis (Corbin & Strauss, 1990). In this mode, we examined the interview transcript or the recording sentence-by-sentence and phrase-by-phrase, allowing salient phenomena or concepts to emerge.

Many of the techniques popularized by Glaser, Strauss, and Corbin (Glaser & Strauss, 1967; Strauss & Corbin, 1998) in their discussions of grounded theory were useful in our data analysis. Aside from the line-by-line analysis, which includes open and axial coding, techniques such as identifying concepts, making continuous comparisons, writing memos, and developing conceptual models were parts of our study. Other procedures that we employed included writing reflective notes, preparing field notes in which we summarized what had occurred during a particular conference, summarizing the field notes and obtaining feedback from participants on the initial summaries. In the early stages of the project, we attended to the language used by the participants. In the latter stages, we sorted data into categories and created visual displays of our analysis.

Limitations

Along with the advantages of the case study strategy, there are disadvantages. We will address two. The first may be dismissed as misunderstandings of the nature of qualitative research. Cases are not necessarily representative, interpretations are not generalizable, explanations are relative, and the researchers’ subjectivity pervades the report. To these charges, Stake responds: “All of the criticisms of case studies are true” (2000, p. 43).

One of the specific challenges for this project was to develop an in-depth understanding of the members' perspectives and the accompanying life-like descriptions while being physically separated from them and their settings. The qualitative case study method employs many of the data collection and analysis procedures of ethnography. Processes such as developing rapport and trust with informants, understanding the subtleties of the situation, and identifying the local and ephemeral factors that are influencing members' actions is not easy, and it has traditionally required researchers to immerse themselves in the situations that they are investigating. However, we found, as Hine (2000) did, that interacting with and observing informants through Internet communication tools was valid because that is how the participants interacted with and observed each other.

Findings

We begin our findings with brief portraits of the five students that worked closely with us throughout the study. Their pseudonyms are Saul, Jacques, Ruth, Marshall, and Judith. To some degree, the portraits illustrate their reasons for enrolling in the course, their current situations, their educational backgrounds, and their experiences with distance education and computer conferencing. We decided to refer to the institution in which we conducted our study as Western Canada University (WCU).

Saul

Saul is an instructor in an applied arts program, currently teaching two courses. He also owns a business in the field-imaging and professional photography. His business focuses on the advertising market: "I don't do weddings," Saul told us (Saul, First interview). We learned little about his family except that he is married.

His motives for enrolling in a graduate program included, equally, intellectual curiosity and practical concerns. He was careful to distinguish himself from "the many people who just want the paper and the designation" (Saul, Email correspondence, March 20, 2004). However, he recognizes that a Master's degree will be useful in his position—an instructor in a college that is moving toward degree-granting status.

With a career and a business, he was not keen to relocate; therefore, he researched Master's programs that were offered at a distance. WCU's is prominent among these. Within this university, the program we studied is attractive because of its flexible curriculum. It would allow him to build on his undergraduate degree and explore some of the issues that are emerging in his field.

The program is not Saul's first experience with distance education. He obtained his baccalaureate degree in Adult Education through a continuing education, remote-site model of delivery. Finding himself in a distance education setting again, Saul said that he would prefer a face-to-face program, but that the distance model will do. We did not hear about any previous experiences with computer conferencing, but we did hear about his daily use of computers.

Jacques

Jacques completed his Baccalaureate degree in Social Work and moved to a northern and remote part of the country where he works in the social services field. He also has his own consulting practice.

Along with this course, Jacques was taking one other graduate course from WCU and two undergraduate courses from another university. All of these are offered at a distance, and all include computer conferencing.

He enrolled in a graduate program in pursuit of a lifelong goal—a doctoral degree in some branch of human services. WCU’s distance model enables him and his wife, who is also a professional, to maintain their careers while Jacques studies. The diversity of the program with its flexible curriculum and timetable allows him to explore a wide range of interests at a pace that fits his schedule.

He is the archetypal self-directed, highly motivated adult learner: At one point, we described his actions as “rolling with the punches,” and he interrupted to correct us: “That would be too passive. What I’ve done is taken a leadership role. Whatever happens here, I’m going to work as a leader, a positive coach, and I will contribute 110%.” (Jacques, First interview)

Ruth

Ruth has recently embarked on a second career in the Health Services field. Until a few years ago, she and her husband were raising their children while she worked as a K-12 teacher. Her primary reason for being in school is to satisfy her intellectual desires. “I always like to be learning something” she told us. “It’s been 5 years since I was in university, and I was looking for something to stimulate my interest” (Ruth, First interview).

With an undergraduate degree and a postgraduate diploma, she felt it was time to consider a Master’s degree. The curriculum of the WCU master’s program seemed flexible, and because it is delivered entirely over the Internet, it will not interrupt her career. This is Ruth’s first experience with computer conferencing; in fact, it is her first experience with distance education. The information and communication technologies (ICT), which are central to this type of delivery, presented some challenges for her. Ruth downplayed these issues in our interviews, but when similar events happened to other students, she was quick to commiserate. With a combination of humor and determination, Ruth made peace with the technological presence in the course.

Judith

Like most of the students in the course, Judith has a career and a family. (We scheduled the first interview around her son’s figure skating tournament, and the third interview, conducted during the Easter break, was paused several times by talk between her and her two boys.)

She works in the field of retail security and investigations, but after 12 years with the same company, she is bored. She wants to build on her undergraduate degree in psychology and her diploma in social work to become a counselor.

Judith is not at liberty to quit her job because she is pregnant and her boys are young, so she looked at distance programs. WCU’s graduate degree in counseling was the obvious choice, but it requires students to attend sessions on campus. Commenting on this, Judith explained:

I can’t afford the time or the cost. The reason I’m taking distance education is because I can’t meet face to face. I don’t want to fly all the way [there] for the weekend. I’m not a millionaire. It kind of defeats the purpose of saying that it’s a distance ed course, and, there’s no need to attend. (Judith, First interview)

The program she is in does not hold mandatory face-to-face sessions, and she feels that with its flexibility and its streams, she can obtain the credentials she needs.

The program is not her first distance education experience. Two of her undergraduate courses were taken through correspondence and a third was taken online. The third included computer conferencing. Along with this program, she was taking another graduate-level course from WCU that also included computer conferencing.

Marshall

Our first interview with Marshall began with a description of how he came to be in the course. Pausing occasionally to check on the bread he was baking and to talk to his son, he told us about his prior education and work experiences.

Marshall graduated with a B.A. in Political Science almost 20 years ago. He was 51 years old at the time of our interview. In the intervening years, he built a successful business then saw it wrested away by fraudulent employees.

Casting around for what do next, something told Marshall to go back to school. "I could've gone into law," he said, "I could've got a Master's in political science, or I could've gone into a MBA" (Marshall, First interview). But after doing a cost-benefit analysis, he elected to do an after-degree in education.

He is happy with the decision. Studying reawakened something that had lain dormant during the years in business. He did well, and he developed good relationships with his professors. He completed the degree a year ago, and had been substitute teaching almost full time since.

The after-degree reinvigorated Marshall's desire to learn, and because he "is too old to get another undergrad degree," he began researching Master's programs (Marshall, First interview). His colleagues have told him that this is the route to an administrative position, of which there will be many during the next few years.

Of the Master's programs in education, many require more years of teaching experience than Marshall has. Others are too specific. The program at WCU, on the other hand, does not enforce the same prerequisites; it is eclectic and will allow him to concentrate on educational topics while exploring other peripheral topics. The fact that it is offered entirely at a distance is convenient and it means that he, his wife, and his school-aged son won't have to relocate.

With this introduction to the students, we can begin to understand their experiences of critical discourse in computer conferencing.

Barriers to critical discourse

In this report, we focus on the lack of critical discourse throughout the 15 weeks of conferencing. As we watched the conference develop and talked to the students about what was happening, we identified several barriers to the type of participation described in our literature review as being necessary for critical discourse. Generally, the barriers revolve around their interpretations of the nature of the activity and of time, of which there are two aspects. We present each in detail below.

Competing orientations toward the activity

One issue that made critical discourse unlikely was the students' orientations toward the computer conference. Of the five we worked with, only Marshall understood the activity as

a forum for mutual critique or critical discourse. His early posts were carefully constructed arguments that invited critical feedback from others. Clearly present in many of his postings was a central assertion that he developed in a coherent and complete manner. Marshall warranted his arguments with various types of legitimate grounds (e.g., data, references to sections of their texts, personal experiences), and if others posted before he did, his messages addressed the assumptions others were making and identified weaknesses in their reasoning or evidence. In the eighth week of the conference, for instance, he responded to an assertion Judith made about the harmful effects of the Internet on society. He considered two sides of the issue, provided evidence for his claims, and advanced the discussion.

Judith,

I see the Internet, like many technologies, as having both positive and negative social consequences. What you point to is true: for certain personality types, it can replace meaningful interaction with others. www.netaddiction.com presents some disturbing statistics concerning “*internet addiction disorder*.”) For others, however, including the less mobile, the isolated, the ill, and the displaced, the Internet allows them to maintain relationships. In addition to the valuable forum it provides for these special populations, I think about how it is enhancing my experience in this course. For me, this is much superior to the correspondence courses I’ve taken. (Marshall, Week 11, Marshall’s conference)

Unfortunately, he was the only student who contributed to the conference in this manner.

Judith did not orient toward the conference as a forum for mutual critique. Instead, she saw it as a space for socioemotional interaction, and she saw her role as cultivating a warm and supportive environment. Almost always, her posts were to a specific student, and they began with a direct address, often quoting from others’ messages. There was no instance throughout the conference in which she did not reply to someone who addressed her. A typical message of Judith’s read like this one:

Marshall,

I enjoyed your responses. The question you posed is worth thinking about. I completely agree with your statement. (Judith, Week one, Group Three’s plenary conference).

Judith had an unusual take on the value of participating in the conferences. Looking outward rather than inward, her participation was designed to enhance the others’ experience more so than her own. From beginning to end, her messages were composed of praise, compliments, and encouragement for others.

Saul alluded to the lack of critical discourse in our first interview, but his manner of posting was far from what Garrison et al. (2000) would describe as exemplary. As we read Saul’s posts, the quality that stood out for us was their incomprehensibility. This arose through grammatical mistakes, unconventional uses of words or phrases, and needlessly cumbersome sentences. Two of Saul’s contributions illustrate this point:

Stage developments represent the various life markers that we experience as we age and develop. This has an advent of being a paradoxical assertion with latent tendencies for an anarchical response. (Saul, Week 3, Group Two’s plenary conference)

Charles-Pierre Baudelaire, a nineteenth century literary and art critic, was inspired by his perceptions which transcended the rudiments of verisimilitude. Freedom of conscience had awakened the internal values that interpret creativity and allowed

Baudelaire to employ *räsoneiren* in resisting "flâneur. (Saul, Week 5, Group One's working space conference)

The students, like Judith, found these bewildering: "Saul's very difficult for me to understand or to interpret. I read it and read it and read it and try to think: "Ok, what exactly does he mean here?" (Judith, Second interview)

Nor did Jacques or Ruth appropriate the conference as a site for critical discourse. They saw it as a place to present personal experiences that related to the course topics. "When I take a theory course like this one," Jacques explained, "I can't help but draw on my experiences at work, my culture, my wife's culture, my rural isolation. I make everything personal" (Jacques, Second interview). There were several examples within the conference of posts in which Jacques and Ruth explored the readings through their experiences. In the tenth week, for instance, Ruth responded as follows to a message from Jacques:

Jacques,

I certainly agree with you that kids in urban areas develop more tolerance and have more exposure to other cultures than kids in rural areas. When my husband and I first came to Canada, we lived in a small rural village in [western Canada]. We had moved from a very large industrial city in England. Even though both cultures were White Anglo-Saxon Protestant (WASP), we experienced significant culture shock. It seemed everything we did was wrong by their standards. For example, we would never have asked visitors to our home to help wash the dishes after the meal, but they thought we were rude not to offer to pitch in. (Ruth, Week 10, Ruth's conference)

Adult educators argue that making connections between course topics and personal experiences is a valuable way for students to learn. It is a different process, however, than critical discourse.

Not only did the students' understandings of what the conference was for diverge, they competed. Marshall, looking for others to challenge his ideas, found only Judith's non-judgmental support, Saul's incoherent ramblings, or Jacques' and Ruth's vignettes. Written from Judith's perspective, this description would read: "Seeking the rapport and camaraderie of a warm and supportive environment, Judith found only Marshall's relentless challenges, Saul's incoherent ramblings." Similar descriptions could be written from Saul's, Jacques,' and Ruth's perspectives.

Critiques are interpreted as attacks

At some points during the conference, we saw budding moments of mutual critique, but they did not blossom. Judith provided some insight into why; she sensed that others misinterpreted any critique as an attack. This was evident in a series of messages that Marshall and Ruth exchanged, which was one of the rare instances of mutual critique in the conference. Upon its conclusion, we asked Marshall to read through the exchange and comment on what had happened. (We present the sections of the transcript that Marshall read aloud in *italics* and his comments in regular font):

Marshall,

I'm really dismayed at your perception of what I meant by authority in the classroom. I have seen many a young teacher and substitute teacher come into the classroom with the idea that he/she will be a friend to the kids, which is not what I said and there will be a democratic classroom where everyone will have equal rights which I never said.

So it's kind of interesting that Ruth basically took what I said and turned it upside down. It's almost like she was a little upset at me. That's my feeling. And then basically I tried to bring the temperature down a bit in my last post, and she didn't respond after. I left it off after that because basically she took parts of my messages and misrepresented them. I didn't see any reason to continue, so I dropped it. (Marshall, Second interview)

Later, Marshall talked about "smoothing [Ruth's] ruffled feathers because [he] saw her as a person who was very angry" (Marshall, Interview 2). Our reading of the exchange was consistent with Marshall's, and his analysis supports Judith's observation that students could interpret alternative perspectives as attacks-and respond in kind.

When we interviewed Ruth about the exchange, we obtained more support for Judith's analysis. Ruth brought up the exchange with Marshall before we could get to it, and she expressed her irritation. At the time, she was relishing another student's disagreement with Marshall (on a separate topic):

Somebody disagreed with Marshall point-for-point actually. I'm surprised you didn't notice, and that you don't want to talk about that instead. In the exchange, somebody really analyzes what Marshall posted and they call him on a number of points, point-by-point. They really took him to task on that! (Ruth, Second interview)

Ruth seemed to interpret differing opinions as win-lose competitions, not as the opportunities for higher-order learning that many commentators imagine. We asked Ruth to read through and comment on the same section of the transcript of her interaction with Marshall. In the same manner as he, she argued that he misinterpreted her position, and she accused him of taunting her.

The tendency to interpret critiques as attacks was one barrier to critical discourse.

Time limitations

One understanding on which Ruth and Marshall agreed was that the discussions have time limitations. With conferences occurring for a duration of one week, she and Marshall quickly began to worry they were dominating the forum inappropriately. They also felt like they needed to move on to other tasks. The due dates for their assignments were approaching, next week's discussion was imminent, and they needed to prepare by completing the associated readings.

Deadlines and time pressures were common topics in the interviews. In our first interview, Jacques described a series of posts that he found particularly illuminating, and we asked if he joined in: "I haven't had a chance to," he began. "It's too mind-blowing!" (Laughs):

In order for me to make good quality responses, it would take me a page online, so I'd have to go back and actually read up again. I just thought, "these are superb posting that these guys did," but I just left it at that and I sat back, lingering in thought, thinking "Interesting." Eighty-percent of the things I'd like to say, I don't have time to actually post. (Jacques, First interview)

He noted that the time it would take to work through disagreements was not designed into their conferencing activity:

In the conference you've got like 3 days to discuss an issue, a week at the most. So, you're not going to change someone's opinion in three days by arguing with them. You can't do too much in three days. (Jacques, Third interview)

Again, argumentation or debate did not reflect Jacques's notion of what the conference was for, and it was not evident in our observations of his conferencing activity.

In this section, the students talked about how time, as it was structured in the course, limited their ability to engage in critical discourse. In this sense, the quantity of time is consistent for all of the students. Equally limiting was the relative amount of time the individual students could dedicate to the conferences. The contrast between Judith and Marshall was stark. Judith received her course materials late. She was pregnant, has two young sons, was taking two graduate courses, and was working full time. Marshall has one son, was taking one course and was working part time. Moreover, Marshall, who was teaching in the content area, received his readings months before the course began, and he was often on his third reading when they came up for discussion. Judith, whose undergraduate degree is in a separate field, was overwhelmed with the "ridiculous amount of reading," which was "going in one ear and out the other" (Judith, First interview). Thus, Judith told us she was hesitant to critique Marshall's assertions:

Its really hard to offer criticism to someone else who's already read the text and knows a lot more about it than I do. I haven't read the text yet, and he's certainly a lot stronger in the [content area] than I am. He's a [content area] buff, and for me it's not my thing. If a psych topic (*her undergraduate focus*) had come up, it wouldn't be a problem. Actually, I'm running a conference next week and my topic is Humanism, so I'm sure I can incorporate several psychological aspects in there. But it's really difficult to criticize someone who's well advanced or at least more advanced than I am. I mean I can't really criticize something I don't know. (Judith, First interview)

Among the five students we spoke with, the disparity between Judith's situation and Marshall's is more pronounced than comparisons between other students might be. Our purpose is only to expose, not exaggerate, a situation that is common in adult, distance education, i.e., the wide variations in students' daily routines, and how it influences their ability to engage in critical discourse.

In this section, we presented some of the discussions we had with five students concerning the lack of critical discourse in their computer conferences. Next, we will contextualize their revelations in the literature and offer suggestions for subsequent research and for practitioners who include computer conferencing in their courses hoping that students will engage in critical discourse.

Discussion

In this report, we explored students' experiences and understandings of critical discourse in computer conferencing. In 67 conferences we found only a few instances of students' challenging each other, and those instances did not appear to facilitate higher-order learning.

Like many commentators, these students were well versed in the rhetoric of critical discourse. In Judith's opening post, for instance, she invited others to "feel free to critique my discussions throughout the year as I find this to be an invaluable learning experience" (Judith, Introductions and Greetings Conference). She told us, "If you don't have the challenge process there, then what are you doing? You're just stating your opinion, and you're not really learning from it" (Judith, Third interview). Yet, of the 97 messages that she posted over the 15-weeks, we found only three instances in which she disagreed with someone. Saul too spoke of the value of articulating cogent positions, but we found little evidence of this quality in his posts. Of the students we observed and spoke with, only one posted consistently in a

manner that could meaningfully be described as critical discourse. Marshall, frustrated with the nature of others' postings, made the following plea early in the course:

I find the general tone of politeness at any cost to be somewhat disconcerting. I would prefer that people challenge me on my ideas; it helps me to re-evaluate and often I can incorporate new ideas into my thinking. Done constructively, criticism can be a very powerful means for intellectual growth. (Marshall, Week four, Group Two's working space conference)

Nonetheless, the nature of the discussion did not change in the ensuing weeks. Neither the students nor we saw the conferences as forums in which higher-order learning was achieved through critical discourse.

Our method does not permit us to say anything about the presence of critical discourse beyond the context in which we worked. A review of the literature, however, indicates that our results are not unique. Several researchers have looked closely at the types and patterns of interaction among graduate students engaged in computer conferencing. The percentage of messages in which students engage in critical discourse, mutual critique, or argumentation, in whatever way it might be operationalized, ranges from 5 to 22% (Davis & Rouzie, 2002; De Laat, 2001; Duphorne & Gunawardena, 2005; Garrison et al., 2001; Gunawardena et al., 1997; Hara, Bonk, & Angeli, 2002; Jones, Scanlon, & Blake, 1998; Kanuka & Anderson, 1998; Marttunen & Laurinen, 2002; McLaughlin & Luca, 2000). And, these meager percentages tend to be overstated: The first step in many of these analyses is to remove all of the messages from a corpus that are not *prima facie* on topic or substantive before counting begins.

This does not mean that the conference we studied, and perhaps those that others have studied, were of no use. When we asked our students if the activity enhanced their experience, they listed several benefits. They discovered and clarified their ideas while composing messages, they relieved their isolation by developing a rapport with others, they stayed on schedule because they had to post regularly, and they expanded their perspectives by reading others' messages. Similar outcomes are reported throughout the literature (e.g., Buckingham, 2003; Gabriel, 2004; Gray, 2004; Naidu & Oliver, 1996; Stacey, 1999).

What it does mean is the seductive notion that computer conferencing is a particularly advantageous medium for facilitating critical discourse and thereby higher-order learning finds little support in 20 years of systematic observation. We have come to terms with these findings, and in the final section we focus on two of the problems of which the students spoke, and we offer suggestions for how these might be addressed by practitioners.

First, we consider variations in the students' understandings of what was expected of them in the conference. This process is consistent with Weick's (1990) explanation of how technologies are socially constructed. He argues, "Communication tasks are equivocal, subject to interpretation and reinterpretation in their implementation context" (p. 944). This *interpretive flexibility* of communication technologies has been well documented by communication researchers who watch as users defy the intentions of designers and appropriate technologies in ways that are more consistent with the social norms, organizational structures, and immediate tasks with which they are confronted (Fulk, 1993; Orlikowski, 1992; Poole & DeSanctis, 1994; Weick, 1990, 1993.)

This understanding contrasts sharply with the technological determinist treatment of computer conferencing that prevails in much of the distance education literature. Here, the objective properties of computer conferencing are positioned as determining how students will orient to it. Because communication is textual, the argument begins, students will carefully articulate their reaction to a reading. Because it is asynchronous, they will

deliberate over others' interpretations, reflect on their own, and craft thoughtful counter-arguments (e.g., Feenberg, 1987; Garrison et al., 2000; Harasim, 1986, 1990; Kaye, 1992; Mason & Romiszowski's, 2004; McComb, 1993; Scardemalia & Bereiter, 1994). In the conference we studied, there was little evidence of these law-like relationships between media characteristics, student activity, and learning outcomes. (Saul's incoherent, extemporaneous messages present a particular hurdle for this position.) Weick's perspective provides a more useful frame for the interpretation of our findings. It also brings the role of the teacher and the design of learning activities back into the foreground.

Implications

In concurrent studies, we have been examining the relationship between various types of discussion activities on the quality of student interaction in computer conferences (Kanuka & Rourke, 2005a, 2005b). We observe denser concentrations of postings in the higher phases of critical discourse models when students are presented with highly structured discussion activities with clearly defined roles for teachers and students. This is particularly evident when the activities explicitly require students to contend with others' assertions (e.g., Webquests, Debates, Deliberative Inquiry). Similar results have been documented by Aviv, Zippy, Ravid, and Geva (2003), Cho and Jonassen (2002), Gerber et al. (2005), Rourke and Conrad (2004) and Villalba and Romiszowski (2000).

The final issue we consider is time, and the debilitating role it played in the conference. In the course we studied, as in many courses, the computer conference was layered atop the regular assignments and activities of a traditional distance education course. This yielded a model of course delivery that combined the activities of a correspondence course with a demand for continuous discussion. For this group of mature students with careers and families, it was a difficult task. In addition to the conferencing expectations, the students were required to read three books, five articles, and compose five essays of a combined length of 6,000 words. They found their readings (e.g., Kant, Foucault) dense and esoteric, and the students told us they had to re-read them several times before they comprehended their meaning. Marshall, for instance, reported spending 5 or 6 h/day on the course during the days when he was not working. Saul estimated he was spending 20–30 h/week on the course.

The model of correspondence course-plus-computer conferencing was challenging for this group of students. When they were forced to apportion their time, the assignments, which were assessed on their quality and substance, took precedence over their conferencing activity, which was assessed on the frequency of participation. As many have lamented, "Whether or not we intend assessment to be integral to the courses we teach, students naturally put the majority of their effort into assessment requirements (Northcote, 2003, p. 8). Unfortunately, little work has been done on developing appropriate assessment tools for online discussion.

Based on comments such as these, we might ask instructors to reflect on a conference's role in their courses and their confidence in its efficacy. If they believe that the conference adds an essential element to the learning experience, then it might replace other elements of the course instead of being added to them. If they are not confident that it contributes to the course goals, it might be removed or moved to a more a marginal position.

Several researchers who have examined student participation in computer conferences are beginning to challenge existing constructions of this technology. They suggest that computer conferencing may not be a dialogical medium through which students either (1) engage in higher-order learning through critical discourse or (2) engage in knowledge co-

construction through collaborative meaning making. Instead, they propose that computer conferencing might best be construed as a monological medium that allows students to integrate their experiences with the content of their courses through reflection and composition (Chen & Hung, 2002; Hoadley & Enyedy, 1999; Pena-Shaff & Nicholls, 2004). We remain committed to the former idea, and in our work, we are trying to understand how these processes and outcomes can be achieved.

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