# Virtual Ethnography: Interactive Interviewing Online as Method

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## Abstract

Recognizing the power of the Internet to connect people, regardless of place or time, we explore the notion of a virtual form of ethnography, suggesting online, textual interactive interviews are worthy of research consideration. This paper reports on three research projects, drawing examples from almost ten years in the evolution of Internet supported conferencing software. It is the position of this paper that we were able to share and develop new insights into being authors, interlocutors, online learners, online researchers, and members of an educational context. Further, we feel that we were able to sustain conversations beyond the scope of many traditional face-to-face interview sessions, noting that the participants enjoyed the process and often found it hard to quit their interactions with us. Hence our position that even though the technology is still emerging and improving, the potential is clearly rich, inviting, and worth continued study.nstructor if given the authority in a social constructivist learning environment.

## Résumé

Reconnaissant la capacité de l'Internet à mettre les gens en relation, quels que soient l'endroit ou l'heure, nous explorons la notion d'une forme virtuelle d'ethnographie, suggérant que les entrevues interactives textuelles en ligne constituent un sujet de recherche digne d'intérêt. Cet article présente les résultats de trois projets de recherche, s'appuyant sur des exemples tirés de l'évolution des logiciels de téléconférence par l'Internet, depuis

presque dix ans. Nous expliquons, dans cet article, comment nous avons pu exprimer, et élaborer, de nouvelles idées sur notre rôle d'auteurs, d'interlocuteurs, d'apprenants et de chercheurs en ligne, et de membres d'un cadre pédagogique. De plus, nous pensons avoir eu des conversations dépassant largement le cadre des sessions d'entrevues en tête-à-tête traditionnelles, et avons constaté que les participants appréciaient le processus et avaient souvent du mal à mettre un terme à nos interactions avec eux. D'où notre position, à savoir que, même si la technologie ne fait qu'émerger et continuera de s'améliorer, son potentiel est manifestement riche et attrayant, et vaut certainement la peine d'être étudié plus avant.

# Introduction

It is probably safe to say that the Internet as technology and the World Wide Web as information media are pervasive elements in the world today. Authors such as Cappelli (2003), Garrison and Anderson (2003), Irvine (2003), Levine (2003), Pittinsky (2003), Spicer (2003), and Twigg (2003) suggest that as educational technologies, the Internet and World Wide Web are transformational and even revolutionary. Recognizing the power of the Internet to connect people, regardless of place or time, we explore the notion of a virtual form of ethnography, suggesting online, textual interactive interviews are worthy of research consideration. We also suggest that developments in software and bandwidth have made them a valuable tool to study online activity and therefore warrant understanding as a legitimate methodology. This paper reports on three research projects conducted online. It offers examples drawn from almost ten years in the evolution of Internet supported conferencing software, which is interesting in terms of increased potential for interactivity and engagement among participants and researchers. Relevant to the inclusion of the three cases is the common method used despite the variations in the software that was available.

Ethnography is a qualitative field of research intended to construct in-depth depictions of the every day life events of people, through active researcher participation and engagement (Emerson, Fretz, and Shaw, 1995, Fetterman, 1998, Spradley, 1979). Miller and Slater (2000) write that the term virtuality " suggests that media can provide both the means of interaction and modes of representation that add up to `spaces' or `places' that participants can treat as if they were real" (p. 4). We counter this definition, in that, even though the places are not geographically bound, they are real. As such, they are embodied, sense dependent, and not fictive. Virtual ethnography, then, suggests a method in which one actively engages with people in online spaces in order to write the story of their situated context, informed by social interaction. The type of interaction we suggest involves a researcher and participant engaging in conversation and meaning making through repeated, revisited and jointly interpreted conversations that support reflection and revision. Conducted online, these conversations are text-based. At this time, textual conversation is the essential and most common element of virtual ethnography. Garrison and Anderson (2003) write, " there is sufficient evidence to suggest that writing has some inherent and demonstrable advantages over speech when engaged in critical discourse and reflection" (p. 26). Our purpose in presenting three case studies of text-based virtual ethnography is to document the nature of text-based, interactive interviewing as a means of qualitative inquiry in the practices of the individuals in online work (e.g. teaching and/or learning online). Further, we suggest that it is consistent with the practice of online work to study the process online as well as this recognizes the long and honored tradition of ethnography that situates the research directly in the actual field being studied.

# Literature Review - Online Interviewing

Clarke (2000) selected and reviewed five studies that used online research methodology. Two of the reviewed studies were online focus groups _ one to explore " emerging social forms in cyberspace" (p. 5) and the other conducted with teenage girls in Australia and China. A third study was conducted through `lurking' on a newsgroup for breast cancer support. A fourth recruited from public chat rooms for interviews inquiring into cybersex. Finally, one conducted e-mail interviews and analysis of list-serve discussions through e-mail to inform a case study of a virtual classroom.

Clarke (2000) categorizes the benefits of online qualitative research as `communication facilitation' and `practical and economic' and the limitations as `technological,' `missing cues,' and `skewness'. In regard to communication, she writes that online methodologies overcome barriers of time-zones and geography. Other benefits include the documentation of communication, active participation and engagement, honesty, and critical review of submissions prior to posting. She lists the practical and economic benefits noting " recruitment is easily negotiated through email; reduced travel, venue and transcribing costs; reduced need for synchronous interview times; access costs reduced by reading and composing interactions off-line; easy communication storage and archiving; ease of distribution of discourse interpretations to participants for evaluation; and ease of publishing and updating results online" (p.7). In regard to technological limitations, Clarke acknowledges non-receipt of messages, disjointed contributions, and the temporary nature of individual participation and online groups. In regard to missing cues, Clarke lists sensory cues that are present in face-to-face and not online, such as speed, loudness and pitch, appearance and facial expressions. Finally, Clarke describes the Internet as regionally skewed with the majority connection through the USA and gender-biased in many countries with more men than women participating.

The other source that addresses interviewing from a methodological perspective is Fetterman (1998) who suggests, " the Internet is one of the most powerful resources available to ethnographers" (p. 72). However, this statement appears to apply principally to specific functions (e.g. virtual office, file sharing and obtaining information from Web pages) and not to interviewing online. He dedicates two paragraphs to conversation online, referring to video and audio conferencing and synchronous text chats, stressing he only uses them after he has already established a face-to-face relationship. His summative comment suggests, " clearly, this software cannot replace face-to-face communication and interactions" (p. 80). This paper suggests otherwise.

# Inquiry Rationale

This paper proposes to illustrate the richness and potential of online interviewing, arguing that there is value in the process and the degree of interaction. We feel it is essential to reinforce the notion that we were not just working online because we could (technological imperative), but because online interviewing can offer something that face-to-face methods cannot, and as mentioned earlier, honors the field in which the participants are working - the online environment.

First, we suggest the utilitarian or instrumental functions that might provide ample rationale to pursue this technological alternative. Interviews online can be conducted at a distance. Thus researchers can encourage participation among those who might provide insight into the topic, beyond those who are geographically available or within the scope of travel budgets. In addition, multiple types of conversations held online such as those conducted through a bulletin board, e-mail, or text-based chat are automatically transcribed. Researchers have traditionally spent large proportions of their budgets on interview transcription, and/or reduced the number and extent of interviews based on cost (time and money) projections.

Further, it is our belief that interactive interviewing online extends beyond the utilitarian functions of distance and transcription, suggesting that online communication is a viable and effective medium for research conversation. These characteristics will be defined and elaborated on in each of the specific cases reported in this paper. It is important to note that when the field to be researched is virtual, conducting the interview online seems consistent with the actual practice of the participants. This is key for those of us conducting research into the lived experiences of online students and instructors and from a belief in the value of a participant-observer approach.

The cases presented here are drawn from research conducted from 1993 - 2002. They reflect an evolution of software and bandwidth, supporting an increasing degree of interaction among researchers and their participants. Common to the three cases is the honoring of the participants' voices, which allows them to reflect, consider, and respond in thoughtful ways, and encourages the development of alternative threads of conversation and points of view. It is our belief that hosting these interviews online supports, not limits, those common elements and strengthens the research in ways that conventional interview techniques could not.

The cases are presented separately in order to detail the purpose, process, and software involved. Conclusions are drawn at the end of the paper, linking the findings of the three.

# Case One - Unix and Pine 1993

In 1993, Simon Fraser University, British Columbia, Canada, used UNIX to support the conferencing software PARTI and to host the Writers in Electronic Residence (WIER) program. WIER was a project of the Writers' Development Trust, and its goal was to connect professional Canadian writers with school students across the country. It was started in 1988, and by 1993 had enlarged to be pan-Canadian in terms of both student and author participation. Its objective is to combine the technology of computer conferencing with curriculum links to the traditional, physically located classroom, emphasizing writing rather than technology. The purpose of online, interactive interviews in WIER was to provide qualitative data for a Master's thesis (Crichton, 1993), exploring the cognitive and socio-affective interaction in the asynchronous online conference by examining the moderators' use of expert practice to encourage participant interaction. It also looked at the human factors the participants addressed in developing an online community of practice and a social community of individuals.

The decision to conduct the research online was twofold. The first was the fact that all the participants in the study were self-identified as writers. Therefore, it seems important to use their words directly as they were far more eloquent than anything that could have been summarized or restated. Second, the participants (three professional authors, three teachers, and five students) were located in various locations across Canada with the closest being a nine-hour drive from the researcher.

Participants were selected based on the degree of involvement of the authors (those most active were invited to join the research) and whether the students had initiated branches of the main conference to encourage commentary on a specific topic. The teachers of those students were then invited to participate. Initiating a branch topic is an important distinction in the PARTI structure. Within the PARTI conferencing system, all new commentary and writing appears in an INBOX, and participants can simply read the new material in the INBOX order. This means that one might read a new note in one branch and then jump to a new note from another branch. There were three main branches in WIER (one for elementary, one for intermediate, and one for senior students). Every month a branch was open within the three main sections to help organize and

manage the work. Within the monthly branches were individual student branches or specific topic branches. Details of the conferencing system are available (Crichton, 1993).

Prior to starting the research, a "shopping list" of issues (Hammersley and Atkinson, 1991, p. 35) was determined based on the literature, and these became the framework for the analysis of the online commentary. Using UNIX commands, the conference comments from the specific participants were downloaded and printed for analysis. This allowed the researcher to function as a participant observer, participating " overtly or covertly, in people's daily lives for an extended period of time, watching what happens, listening to what is said, asking questions; in fact collecting whatever data are available to throw light on the issues with which he or she is concerned" (p. 2).

Recognizing the impossibility of physically meeting with the research participants, a text-based, online exchange was designed. Because all PARTI communications could be downloaded in ASCII format, there would be no need to transcribe interviews, allowing the researcher to engage in armchair research - sitting in front of the computer collecting rich data in a virtual field. However, the burden lay with the researcher to create the interview climate that would support interaction. Cautionary words such as " too much can be inferred from answers taken at face value to questions of dubious merit; all answers depend upon the way a question is formulated; language is not a clan logical tool like mathematics that we can use with precision " (Mishler, 1986, p. 2) affected the development of the questions that were placed within a separate branch of the WIER conference entitled research. The researcher asked each participant a different combination of questions that reflected their specific involvement in WIER (author, teacher, student) but also allowed each access to both the questions and responses of the other participants. This method was consistent with how the main WIER conference encouraged interaction. All the research participants knew how to move through the conference structure and add comments.

Early into this research project, a fellow graduate student asked the researcher where her research was being conducted. In attempting to answer, the issue of place arose, prompting concern as to whether these participants were actually presenting themselves honestly online (Turkle, 1995). This caused an investigation of the human factors that come into play when one functions online. These factors included negotiating one's sense of self online (finding and developing a textual voice), wrestling with technical trouble, developing a sense of virtual community, determining specific social conditions, and grappling with the use/absence of senses (Crichton, 1993). These are supported by the work of Chesebro and Bonsall (1989) stating, "If telecommunications is to retain its importance and popularity, it must incorporate a view that treats persons as persons and it must study human communication as a process going on between people" (p. 117). These factors became important elements in the coding of participants' responses.

Based on the quantity (number of postings) and quality (link to other statements and richness of comments) of the messages posted to the research branch, one could determine that it was well used by the participants. They joined, contributed, and interacted. They developed a community within the WIER community, making the research branch alive with commentary and opinion. They created a world composed of objects that were the products of their interactions (Blumer, 1969). These objects were composed of "physical objects such as chairs, trees, or bicycles; (b) social objects, such as students, priests, a president; (c) abstract objects, such as moral principles, philosophical doctrines, or ideas" (p. 10-11). The participants used physical objects (their computers and software) to create and share social and abstract objects, sharing what they were eating or drinking, what time it was or how they were feeling. Initial fears of not getting to know the participants were proven to be

unfounded as interactions increased and the level of personal comments deepened. It appears that the participants who contributed to this branch worked together to define the environment in which they found themselves.

Never having met face-to-face, these people developed a virtual relationship based on a common task and interest in writing and then developed a further relationship based on shared experiences and social interactions. Participants had the option of either responding spontaneously to the questions or uploading their responses at a time convenient to them. They could read all the commentary and enter their own comments into other respondents' branches - either answering questions or commenting on responses. The choice of reflection between responding was theirs, and they could go review and revise their responses.

The participants took pains to create individual identities either by using specific emoticons or signing off with nicknames. Each seemed to develop a distinctive written voice; and delightfully, each had a difficult time leaving the conference and stopping their contributions.

In reflection, the online interviews in PARTI were rich and interactive. They supported reflection and correction, and they allowed the respondent to collaborate. Participants received affirmation of their opinions and were informed of other opinions. Looking back on the experience, it is obvious that the PARTI software was limiting due to the awkwardness of the branch structure, the linear structuring of the messages, and general ugliness of the interface, and in the next year academic year, WIER shifted to First Class Conferencing in order to address many of the technical issues identified in the research.

# Case Two - First Class 1998

In 1993, the Ministry of Education in British Columbia, Canada, launched a pilot project, New Directions in Distance Learning (NDDL), to expand learning opportunities in small, rural high schools across the province. Using First Class Conferencing software and a range of audio-graphic conferencing tools, students were connected to virtual classmates and subject experts. The models were based on a learning triad of student, teacher, and site facilitator. Claims were made about the quality of the learning experience and the ability to support a community of learning across time and distance (Crichton, 1999).

After three years of operation, a research project (Crichton, 1998) was developed to determine the validity of the claims. The use of First Class to conduct the research seemed consistent with the learning / teaching strategies of the pilot; therefore, a conference was developed within the NDDL site to interview participants.

Participants were selected from the most populated and active course, Law 12. The teacher of the course was included, as well as NDDL staff, students enrolled in Law 12, and those students' site facilitators. Each was given access to the Research Conference area and questions were posed in that conference to the group in general. Questions were asked of all participants via private email, but the responses (summarizes without contributors' identification) were shared within the group area.

The design for the research was based on the empirical research tradition of extending the theoretical by going into the field as a participant observer. An ethnographic-inductive design (Kellehear, 1993) was developed, as it seemed most suitable for the observation of social systems such as the NDDL pilot. A variety of approaches were used to analyze and portray the social system observed:

• Observation of online communications and audio conference participation.

- Online interviews with participants.

- Information collection from online conferences.

- Information collection from informants (NDDL participants).

- Study of information collected from the first three bulleted items.

- Study of physical objects (technology, curriculum, student papers and projects).

- Study of organizational artifacts (handbooks, memos, promotional materials and project communications).

The ethnographic-inductive approach allowed for an evolving inquiry and is supported in the literature of action research (Argyris and Schon, 1978; Lomax, 1989). The use of First Class allowed for the inclusion of participants from across British Columbia. It extended the interview from a one-shot encounter to a continuous relationship among participants. Conducting research of this type requires technical as well as research skills, causing the researcher to constantly balance her presentation of self (Goffman, 1959) in a virtual environment with no physical clues to help with the collection of information. It must be noted that the unobtrusive research (Kellehear, 1993) conducted online raised an additional set of ethical questions as to the participants' awareness of the researcher's identity and role, the researcher's access to online messages, an the researcher's ability to "lurk" in an online conversation and not be noticed.

A conference area, Law 12 research, was created within the main course conference of Law 12. Its intention was to encourage participants to share experiences and provide an opportunity for informal chat among members, reflecting Rheingold's notion (1994) that ideal chat often sets the context for communities whether virtual or not. The online conference data was downloaded and analyzed using frames and codes (Goffman, 1959) developed from the prior analysis of NDDL documents and general conference communications. Additional questions were generated from the ongoing analysis and the Law Research conference was active for several months.

## Case Three - WebCT Chat 2002

Community Rehabilitation and Disability Studies (CRDS), a program within the Faculty of Education at the University of Calgary, has been offering distance education since its inception over twenty years ago. In 1995 we launched three online quarter-courses dedicated to understanding anatomy, physiology, and health foundations of disabling conditions across the life span. We now offer twenty-five online courses.

As an instructor in the program, I (Kinash ) became increasingly interested in what it is like to be an online learner, and how post-secondary institutions are beginning to adopt a student-centered approach. I wrote a proposal to use the Community Rehabilitation and Disability Studies students in a qualitative case study. In June 2002, my research plans took a departure. I attended the Second Annual Second City Conference on Disability Studies and Education in Chicago (Kinash, 2002). The night before the conference began I sat reading a stack of journal articles and came across one by Kim-Rupnow, Dowrick, and Burke (2000). Their search of journal article indexes revealed a total of eight articles about disabled post-secondary students. I was astounded. The keynote address on the opening evening of the conference - `nothing about us without us' - steeled my resolve to move beyond post-secondary learners studying disability, to the disabled post-secondary students themselves.

I further bounded the research to blind adults. An examination of the blind students' experience of online learning is located in a matrix of community inclusion, technological imperative, social justice, and socially constructed images, policies, and practices. Framed in part by a three pillared (background, design, and impact) model of online learning research and practice by Gallini (2001) three questions emerged:

- What is it like to be a blind post-secondary student enrolled in online learning?

- What design characteristics best facilitate learning for blind students?

- What is the impact of blind students engaged in online learning?

The third question was intentionally worded ambiguously. I wanted to remain open to any type and degree of impact. The impact might be on the disabled students themselves, on their student colleagues, on the instructor, on the course content and design, on the university administrative structure and information technology systems, or some combination.

Research into the potential of interactive interviewing online became imperative for three reasons. First, this research has been contracted with and funded by the Professional Development and Research Institute on Blindness (PDRIB) at Louisiana Tech University and through the Louisiana Center for the Blind (LCB), thus creating geographical distance between my research participants and me. I need to be assured that online interviewing is a valid and efficient means of conducting my research. Second, as stated above, online conversation is germane to the topic of online learning, and thus facilitates participant observation. Third, the sensory impairment of blindness derives questions in terms of universal design, adaptations, and assistive devices in using the Web, as well as of what constitutes media richness in an auditory rather than visual interface. The questions of online conversation, and in what form, beg to be explored within the context of blind users.

My exploratory study consisted of three online conversations, each two hours in duration with a woman studying at the University of Calgary but living in another province. I used the synchronous text-based chat communication tool within WebCT. Early in the initial conversation, I asked what it is like to be an online learner. The other questions pursued this experience. The second and third conversations re-visited some of the content from the first. Engaging in a practice common to interactive interviews, I marked-up the transcripts of each of our conversations with questions, comments, and citations from the literature and e-mailed them to the participant. She responded and provided her own mark-ups through e-mail and in the course of subsequent conversations. Finally, we engaged in a reflexive, or in other words, meta-analytic conversation of what it is like to converse online.

Jopling's (2000) description of six " features of the pragmatics of interlocutive language that is involved in reflective dialogue " (p.155-57) can be aptly used to analyze the online interview experience. First, dialogue is open-textured. This means that the conversation evolves; it is not pre-determined, controlled or structured. One of the interesting features of an online conversation, was that it allowed me to `take back my words' before they were shared with the student. Sometimes I thought that I would take our conversation in a certain direction and I would begin typing a question. In the meantime, the student would post words to the screen, and I would see that our conversation was leading in a different direction altogether. I would delete my words, and type a new, unanticipated question or comment.

The second feature is an open-minded acceptance of the interview participant as "other" than the researcher, in point of view. The absence of visual cues has an interesting effect in online interviewing. The words appear on the screen. They are not attached to a face with expressions, or a body that is either like or not like my own. I had not met the student enough times to have formed a clear mental image of her. Her words on the screen had to provide both the content and the context. The fixed nature of those words, their irreplacibility and undeniability might have kept me more open to her meaning. I could not replace them with words I thought I heard. When I was distracted by my own thoughts, impressions, and anticipations of the next interchanges between us, I needed only to return to her written word to be re-oriented to her position.

Third, the language of the researcher and the participant is frank and unrehearsed. The student was waiting for my words to appear on the screen to prompt her own next response. The input box is one-line without a scroll-bar. To edit, I had to delete all of the way back to the words I wanted to keep. While I was able to rehearse somewhat more than in face-to-face conversations as I did, on occasion, delete and start over, on the whole I had to `be' in the conversation in order to keep up. The conversation is likely not as `frank' as in face-to-face, as I am less likely to put regrettable words in print than to let them dissolve into the air. Perhaps a little less `frankness' might produce more reflective, insightful interview content.

Fourth, dialogue is "evocative." Jopling (2000) explains that emotions are not separate and apart from responses, but that "...these feelings themselves constitute responses to my appeal" (p.156). I felt that my explicit attempts to elicit descriptors of emotion fell flat, i.e., I asked, "as a distance learner, I feel " and the student responded with a description of the pragmatic function of online learning. However, emotion was interwoven throughout the conversation. She evoked an emotional response from me when she told me about a traumatic family event; the limitation for me, was having no outlet to express that emotion.

Fifth, the dialogue is comprised of "...mutual recognition and response" (p.156). Each participant is an "I" talking to "you." In online interviewing, there are no nonverbal cues of encouragement; no nodding heads to encourage continued conversation. Conversely, there are no nods, frowns, or yawns to discourage or distract. There are no misread social cues that result in second-guessing what the `other' wants communicated rather than what I want to say. The student and I had to negotiate methods of replacing some conversational cues, and even then, I found myself interrupting on occasion. If I could make a technological adaptation to the chat communication tool, it would be to place an image of a red and green light on the keyboard, linked to its appearance on the screen. I knew when the student had posted her response on the screen, because her words would appear. What I did not know is whether she was ready for me to make a contribution, or whether she was pausing to think or typing an entry.

Sixth, the dialogue is a lived experience between the researcher and the participant; each experiencing being in the moment. In Robinson's (2000) phenomenological hermeneutic study of the experience of online learning, the learners described experiencing themselves as not `being in' the learning experience. They were sitting across from their monitor in a room away from their fellow students, and they did not `forget themselves' in the moment. This is intriguing in that other accounts (e.g., Dreyfus, 2001) describe a contemporary notion of Internet users as disembodied, free-floating in cyberspace. I experience neither free-floating nor disassociation. As I write this paper and play with these ideas, and as I conversed with the student, I often forgot/forget about my fingers punching the keys, and yet the ideas continue(d) to appear on the screen. Yet, at the same time, I am aware that it is/was late and that I am/was tired and that I have had no supper and am hungry. I received the same comment from one of my face-to-face students who, in response to asking for feedback in regard to an

experiment in inquiry-based learning, replied that the class is too late in the day.

# Conclusion

We introduced this paper by positioning the research interview as interactive, and suggesting the potential of conducting it online. We reviewed three case studies, illustrating the technology available at the various times studies, reflecting on its influence on the research design and degree of interaction. We conclude our analysis by summarizing the strengths and limitations of interactive interviewing online. Within this paper, the strengths and limitations apply exclusively to text-based interactive interviewing, both because of the aforementioned benefits of textual conversation and because we have only begun to explore the potentials of voice-based communication online.

## Strengths

• Online conversation allows participants to `take back their words' prior to posting them so that the evolving nature of the conversation can be accommodated.

• Participants with a talent for the written word are able to `author' their life experiences in appealing prose.

• Writing one's life experiences in text contributes to a sense of self.

• The absence of visual, bodily cues, and the fixed nature of printed words allows participants to stay oriented to the other's intentions.

• When synchronous, the nature of the conversation, entailing the waiting `other' keeps the conversation spontaneous and unrehearsed.

• When asynchronous, the participant has the time and access to information resources, to inform, reflect, revise, and iterate responses.

• Participants are less likely to put regrettable words in print, as they are to let them `dissolve' into the air.

• There are no nods, frowns, or yawns to discourage or distract, and misread nonverbal cues that result in second-guessing the expectations of the `other.'

## Limitations

• There are limited nonverbal cues of encouragement.

• There are limited means for emotional or empathetic communication.

• Interruptions occur readily, as there is no capacity to know when the other is pausing for reflection and then intending to continue, or typing a response.

• Some participants do not experience `being in' the interview experience when it is held online.

• Text-based transcripts do not yield a multi-media capacity for presentation of the results, i.e., videotaped interviews enable research to be disseminated replete with demonstrations and excerpts presented directly by the participant.

What has not been mentioned explicitly above is that interactive interviewing online is engaging. We enjoyed the conversations and the resultant development of virtual communities of inquiry. We were not struggling to overcome the technology in order to communicate. Instead, we found that the technology facilitated stimulating dialogues. It was our experience that we shared and developed new insights into being authors, interlocutors, online learners, online researchers, and members of an educational context. Further, we feel that we were able to sustain conversations beyond the scope of many traditional face-to-face interview sessions, noting that the participants enjoyed the process and often found it hard to quit their interactions with us. Hence

our position that even though the technology is emerging and improving, the potential is clearly rich, inviting, and worth continued study.

# References

Argyris, C. & Schon, D. (1978). Organizational learning: A theory of action perspective. Sydney, Australia: Addison-Wesley Publishing Company.

Blumer, H. (1969). Symbolic interactionism: Perspective and method. Englewood Cliffs: Prentice-Hall, Inc.

Cappelli, G. (2003). E-learning in the postsecondary education market: A view from Wall Street. In M. S. Pittinsky (Ed.), The wired tower: Perspectives on the impact of the Internet on higher education (pp. 41-63). Upper Saddle River, NJ: Financial Times Prentice Hall.

Chesebro, J. W. & Bonsall, D.G. (1989). Computer-mediated communications: Human relationships in a computerized world. Tuscaloosa, AB: The University of Alabama Press.

Clarke, P. (2000, September 6,7,8). The Internet as a medium for qualitative research. Paper presented at the 2nd Annual Conference on World-Wide Web Applications. Retrieved April 30, 2003, from http://generalupdate.rau.ac.za/infosci/conf/Wednesday/Clarke.htm.

Crichton, S. E. (1993). Encouraging on-line social interaction: The use of expert practice. Unpublished master's thesis, Simon Fraser University, Burnaby, British Columbia, Canada.

Crichton, S. E. (1998). Learning environments online: A case study of actual practice. Unpublished doctoral dissertation, University of Sydney, Sydney, New South Wales, Australia.

Crichton, S. E. (1999). Virtual learning environments. Journal of Online Learning, 10(4), 10-12.

Dreyfus, H. (2001). On the Internet: Thinking in action. New York: Routledge.

Emerson, R.M., Fretz, R.I., & Shaw, L.L. (1995). Writing ethnographic fieldnotes. Chicago: University of Chicago.

Fetterman, D.M. (1998). Ethnography: Step by step (2nd ed.). Applied Social Research Methods Series, Volume 17. Thousand Oaks: Sage.

Gallini, J.K. (March/April 2001). A framework for the design of research in technology-Mediated learning environments: A socio-cultural perspective. Educational Technology, 15-21.

Garrison, D.R., & Anderson, T. (2003). E-learning in the 21st century. London: RoutledgeFalmer.

Goffman, E. (1959). The presentation of self in everyday life. Garden City: Doubleday Anchor Books.

Hammersley, M. & Atkinson, P. (1991). Ethnography: Principles in practice. New York: Routledge.

Irvine, M. (2003). The emerging global e-education industry. In M. S. Pittinsky (Ed.), The wired tower: Perspectives on the impact of the Internet on higher education (pp. 65-109). Upper Saddle River, NJ: Financial Times Prentice Hall.

Jopling, D. (2000). Self-knowledge and the self. New York: Routledge.

Kellehear, A. (1993). The unobtrusive researcher: A guide to methods. St. Leonards, Australia: Allen & Unwin.

Kim-Rupnow, W.S., Dowrick, P.W., & Burke, L.S. (2001). Implications for improving access and outcomes for individuals with disabilities in post-secondary distance education. The American Journal of Distance Education, 15(1), 25-40.

Kinash, S. (2002). Online education in disability studies, and interactive interviewing online as research methodology. Paper presented at the second annual meeting of Second City Conference on Disability Studies and Education, Chicago, IL.

Levine, A. (2003). Higher education: A revolution externally, evolution internally. In M. S. Pittinsky (Ed.), The wired tower: Perspectives on the impact of the Internet on higher education (pp. 13-39). Upper Saddle River, NJ: Financial Times Prentice Hall.

Lomax, P. (Ed.). (1989). The management of change: Increasing school effectiveness and facilitating staff development through action research. Philadelphia, PA: Multilingual Matters Ltd.

Miller, D., & Slater, D. (2000). The Internet: An ethnographic approach. New York: Berg.

Mishler, E. G. (1986). Research interviewing: Context and narrative. Cambridge: Harvard University Press.

Pittinsky, M.S. (2003). Transformation through evolution. In M. S. Pittinsky (Ed.), The wired tower: Perspectives on the impact of the Internet on higher education (pp. 1-12). Upper Saddle River, NJ: Financial Times Prentice Hall.

Rheingold, H. (1994). A slice of life in my virtual community. In L.M. Harasim (Ed.), Global networks: Computers and international communication (pp. 57-80). Cambridge, MA: MIT Press.

Robinson, P. (2000). Within the matrix: A hermeneutic phenomenological investigation of student experiences in Web-based computer conferencing. Unpublished doctoral dissertation. University of Maryland.

Spicer, D. (2003). Where the rubber meets the road: An on-campus perspective of a CIO. In M. S. Pittinsky (Ed.), The wired tower: Perspectives on the impact of the Internet on higher education (pp. 145-179). Upper Saddle River, NJ: Financial Times Prentice Hall.

Spradley, J.P. (1979). The ethnographic interview. Orlando, FL: Holt, Rinehart & Winston.

Turkle, S. (1995). Life on the screen: Identity in the age of the Internet. Toronto: Simon & Schuster.

Twigg, C.A. (2003). Quality, cost and access: The case for redesign. In M. S. Pittinsky (Ed.), The wired tower: Perspectives on the impact of the Internet on higher education (pp. 111-143). Upper Saddle River, NJ: Financial Times Prentice Hall.

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