ETHICAL ISSUES AND QUALITATIVE METHODS IN THE 21ST CENTURY: HOW CAN DIGITAL TECHNOLOGIES BE EMBRACED IN THE RESEARCH COMMUNITY?

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With the increased use of digital technologies in qualitative research practices encompassing data collection, analysis, and distribution, researchers have expressed a growing concern with the ethical implications of such use. This paper revisits the ethical concerns traditionally associated with qualitative study and then provides an analysis of how these traditional, ethical practices might evolve as digital data becomes an integral part of qualitative research designs.

Those engaged in the enterprise of educational research have traditionally been concerned with the ethical implications of their work (Barone, 2000; Ebbs, 1996; Eisner, 1998; Flinders, 1992; Haverkamp, 2005). Research organizations publish Code of Ethics documents (AERA, 2005) and institutional review boards (IRBs) vigilantly review the research practices of their scholars (Drisko, 1997). All researchers, both qualitative and quantitative, should strive to conduct their inquiries with the utmost regard in this arena. However, those in the qualitative paradigm oftentimes are faced with more complexities. “From the beginning moments of informed consent decisions, to other ethical decisions in the field, to the completion of the study, qualitative researchers need to allow for the possibilities of recurring ethical dilemmas and problems” (Janesick, 1998).

Beyond these informed consent issues, qualitative researchers wrestle with the very real dynamics of power and voice when conducting their inquiries (Clough, 2004; Malone, 2003; Soobrayan, 2003; Zigo, 2001). While acknowledging that the researcher’s position of dominance can never totally be annihilated, qualitative designs continue to focus on striking a balance of power between themselves and those participating in their studies. The ethical implications of not doing so are grave (Boucher, Smyth, & Johnstone, 2004; Knight, 2000; Wax, 1995). The collecting of multimedia data (audiotapes, photographs, video) in qualitative inquiry has provided richness to the work, but participant voice is a continued concern (Campbell, 1997; Moreland & Cowie, 2005; Saferstein, 2004).

Part of this ethical debate, in recent years, has been amplified as qualitative researchers have adopted various digital technologies for their work. Field notes taken via laptop, digital video and audio interviews, data analysis software, and online multimedia journals are a small part of this phenomenon. These artifacts
raise new questions regarding informed consent, confidentiality, and the public good. With the increased use of digital technologies in qualitative research practices encompassing data collection, analysis, and distribution, researchers have expressed a growing concern with the ethical implications of such practices (Morse & Pooler, 2002; Schuck & Kearney, 2006). Others have argued that contemporary technologies such as digital video can produce “emancipatory research” practices that strengthen the participatory ideals embedded in qualitative research traditions (Mclarty & Gibson, 2000).

While some propose to abandon digital data sources in order to resolve potential ethical conflicts, isn’t it possible to build on our past codes of ethics to create new best practices in the use of emerging technologies? This paper revisits the ethical concerns traditionally associated with qualitative study and then provides a discussion of how these traditional, ethical practices might evolve as digital data becomes an integral part of qualitative research designs. This conceptual/theoretical piece reviews the key ethical elements espoused by most qualitative researchers, and then extrapolates how these elements can be addressed as emerging technologies impacting the domain of qualitative research. Examples drawn from the author’s experience in conducting qualitative studies that utilize various digital technologies are given. While the focus throughout is on qualitative research practices, many of the arguments can equally be applied to quantitative inquiry methods as well.

This study begins with an overview of the researcher’s ethical perspective and then moves to an analysis of how these commitments might be upheld as emerging technologies capture a place in our qualitative world of inquiry. The artifacts cited are excerpts from data collections of recent qualitative studies, including the author’s. References given will provide the reader with opportunities to further explore digital data issues. Various digital research artifacts are also available for reader review. These items, including full PDF interview transcriptions, digital audio and video interviews and observations, scanned documents, and excerpts from research publications in CD-ROM, DVD, and web-based formats, are available for analysis at http://edhd.bgsu.edu/~sbani st/digiethics/.

**Point of View**

Our ethical research behavior in the United States is currently governed through the use of the Common Rule (e.g., 45CFR46) (Services, 2006) and detailed by the National Institute of health (NIH, 2006). Adherence to these rudiments is maintained by Institutional Review Boards (IRBs) established within entities conducting research.

IRBs target the following key elements when evaluating a research design:

1) Participants must be able to provide “informed consent,” meaning that they have been given sufficient facts to determine if their participation in the study is safe and worthwhile.

2) Participants must be able to withdraw from the study at any point, without fear of repercussions.

3) Researchers must take care to eliminate unnecessary risks in their research design.

4) The benefits of participants and society as a whole must outweigh the potential risks of the study.

Beyond these requirements, qualitative researchers have moved forward to include participants in their studies as partners. Ethical behaviors in these research projects involve participants who are treated not only fairly, but with care, openness, and respect (Mills, 2000). The following paragraphs discuss the elements of informed consent, the ability to withdraw, and evaluating the risks and benefits in a qualitative research context.

**Informed Consent**

In addressing these concerns as a qualitative researcher desiring to use various digital tools to engage in a study, efforts have to first be made to truly inform participants. Details concerning the use of digital audio and video recordings, digital images, and digital documents to collect and eventually distribute data must be clearly explained (See Appendix A: Example IRB Informed Consent Documents). Participants
need to know that they will be able to review the various types of files and give final approval at that time for their use in publications. Additionally, participants need to be privy to the interpretations and explanations a researcher might offer with the data. Participants engaged in a dialogue with the researcher about possible interpretations can aid in the quality of the final assertions. Participants also must have full disclosure of the venues in which the data may be offered (website, DVD, etc.), the duration of this publication (years, indefinitely?), and the security of the venue (password-protected, subscription required, open web access, etc.). With these specifics in mind, a participant can reasonably give informed consent.

**Ability to Withdraw at Any Time**

Besides withdrawing from the study while it is being conducted, participants need to know they can choose to withdraw once data collection is finished. They need to be able to withdraw after reviewing tapes, artifacts, or edited versions of the data. They need to be able to withdraw (or have the data withdrawn) from websites or other distribution media if they feel threatened or exploited. The commitment of the researcher to provide this type of assurance may seem risky in regards to publishing well-supported assertions, but it is imperative if real openness and trust are to be achieved.

**Identifying Risks**

Researchers can work to eliminate unnecessary risks in their research designs on several fronts. Initially, focusing on the research questions and what is really needed to answer those questions will prevent superfluous capturing of data that is not relevant to the study and could unnerve participants. Qualitative researchers can work to collect data in an unobtrusive manner, “blending in” to the research site, rather than distracting participants with large cameras, too many wires, or extra microphones and lighting kits. Learning to collect high quality digital data samples without making participants feel that they are on a movie set is critical to capturing relaxed and authentic information. Specific procedures for assuring privacy and anonymity must be developed and communicated. This includes concerns over hard drive and database security addressed by previous authors (Akeroyd, 1991), but should move beyond this to willingness to alter voice or visual representations to protect participants’ identities when requested to do so. This mirrors the focus of the past several decades of qualitative study in which increased attention to the voices and feelings of the participants is extremely important.

**Articulating Benefits**

Finally, researchers must strive to clearly and effectively present the rationale for their work, supporting the claim that the inquiry will provide benefits to participants and society as a whole—benefits that outweigh any potential risks that could be perceived. Communication via websites and email can facilitate this process and provide researchers with avenues to keep in contact with participants throughout the data analysis and final report stages of the study. Because such research is socially and technically constructed, the credibility of the work rests upon reasoning and evidence. Continuing to include participants in the review, editing, and distributing of digital data helps to assure that final publications are relevant and valuable. In this interpretive approach, respondents have a role in analysis, and products are negotiated and contextual. The following paragraphs explore these elements of ethical practices in more detail, providing examples from qualitative studies that have incorporated digital technologies as a part of their research designs.

**Co-Constructing the Research Process**

While qualitative researchers have, for the most part, acknowledged the significance of accepting those included in their studies as “participants” rather than “subjects,” collecting digital data makes this differentiation even more significant. From the inception of a study that potentially could place images, video, and participant quotes online, those participants must receive more than a one-time opportunity to provide informed consent. Instead, participants should be offered an “Invitation to Dialogue,” an opportunity to view and review media, transcriptions, edits, and interpretations that com-
prise a research project. This invitation could begin with an initial informed consent document, but the document should clearly request and encourage continued involvement as digital data are captured, analyzed, edited, and published. As Brownlow and O’Dell (2002) noted, researchers can provide assurances regarding confidentiality in the way they use digital data, but those assurances must be guarded. In an age of “copy/paste” and “Photoshopping,” data that are published via electronic means could potentially be appropriated by unseen others. It is difficult to predict exactly how such pirated acquisitions might be used, so researchers need to be straightforward in describing the goals of their “electronic ethnographies” (Schrum, 1995) so participants might weigh carefully the potential benefits and risks associated therein.

Some participants may choose to blindly trust the researcher, signing informed consent documents and giving blanket permissions to use all data collected, without further review. Such consent should weigh heavily on the researcher, who must take exceptional care in analysis, editing, production, and distribution. Without additional reactions from participants throughout these processes, it is difficult to achieve what Ricki Goldman-Segall (1998) referred to as “configurational validity.” Digital narratives embodying configurational validity present evidence that has been constructed/deconstructed from various “points of viewing,” clearly presenting an eclectic mix of interpretations and questions. When research participants review data and express their interpretations, multi-faceted representations emerge that reflect the complexity and non-linearity of the phenomenon under investigation. As researchers and participants talk about these ideas and issues, meanings are co-constructed. Once interpretations are negotiated, then researchers/participants can collectively make decisions regarding what types of data are shared and in what mediums.

Obviously, this type of openness to critique and review places the researcher in a precarious position. Establishing participants as co-constructors of research can potentially mean that participants elect to remove themselves from studies that they believe portray them in an unattractive light. Others may not give their permission for data in digital forms (images, audio, video) to be used in the study. Qualitative research has always been a messy process, but extending these complexities to include digital data and online/electronic distribution modes can make this type of inquiry quite maddening. The benefits that digital data and electronic research distribution can provide do outweigh the complications, however (Banister & Hodges, 2004), providing researchers with a wealth of inquiry-based conversations and insights.

So how does one proceed along this path? How can a qualitative researcher, committed to digital data and ethical practice, be successful as a scholar and as a principled inquirer? While this researcher cannot presume to have definitive answers to these questions, the following paragraphs describe various scenarios from qualitative studies that incorporate digital technologies (especially audio/video data and online publications) and some of the dilemmas encountered. These examples are meant to serve as a springboard for critical thought and action, as qualitative research continues to move forward in our technological age.

**Scenario One: Participant Protection Through Reconstruction of Video**

Researchers using video captured as an observation/interview data-collection method may sometimes create video footage that if shown in its original form, might embarrass or humiliate participants. When the issues presented in the footage are deemed critical to the research questions and implications, then it is possible for the researcher to edit the video to “mask” participant identity through the use of voice or image manipulation. As previously mentioned, participants must be given the opportunity to review the media and approve the use of specific edited segments. In lieu of this option, some researchers have explored recreation of the video, using actors to reenact events documented through researcher observations. Mitchell (2004) described such a process involving nursing home residents and their sexual behaviors. The laborious process of scripting, casting, and re-shooting adds more
time to the qualitative process, but the end results may provide the research community with materials that move our understandings of certain phenomenon forward. Finally, a goodly amount of stock footage is now available in digital format which sometimes might be used to illustrate a phenomenon without using video or images from the actual research site. This type of representation actually moves away from incorporation of “digital data” to what might be considered “digital embellishment,” a practice that could undermine the trustworthiness of a study.

Scenario Two: Framing the Work

As researchers, we are ethically bound to acknowledge our prejudices, preferences, and points of viewing. Realizing how our particular personal, cultural, emotional, and political beliefs shape the way in which we “see” allows us to be open to multiple perspectives regarding our work. In using digital tools to support our research, we must be aware of how we “frame” the data collected. Our research design, the questions we develop, the evidence we determine to capture, and the lens with which we interpret are all impacted by our limited viewpoint(s). When one videotapes, this framing becomes quite literal, as we set up the camera to capture a certain parameter in exclusion to all other contexts which surround it. In doing so, what are we focusing on and what are we leaving out? Ricki Goldman-Segall (1998) in her book, *Points of Viewing*, documented the struggle of students and teachers trying to make sense of their ecological world. Segall “reframes” her research by offering her video camera as a tool for her participants. As students and teachers capture video of their activities, sometimes interviewing each other and sometimes creating personal commentaries and documentaries, the complexities of their economy, the logging and fishing industries, and their environmental concerns are dramatically expressed. Multiple points of viewing are juxtaposed in a creative and thoughtful study.

Scenario Three: Honoring Informed Consent

Even when researchers approach their studies with a co-constructing mindset, some potential participants choose not to be a part of certain projects. When conducting educational research in a P-12 classroom environment and observing classrooms, this is especially problematic when some students in the class cannot be included. Researchers may still be able to use video footage from these classrooms by strategically capturing and editing in this medium. Being careful to exclude non-participants when framing a classroom shot and reassuring non-participating students (and their parents) that they are not being taped is vitally important. If they are inadvertently filmed, deleting the footage or editing the footage to assure that the student is not recognizable should be done in a timely manner. If the video is edited, the non-participant (and parents) should be given a copy for review and asked for permission to use the edited clip. Banister (2004) exemplified this practice in her study of exemplary teachers integrating technology. Only student participants (with parental consent) are represented in interviews and classroom activities, even though the classroom practices are well documented.

Scenario Four: Qualifying Confidentiality and Risk

Finally, when publishing in digital venues (CD-ROM, DVD, www.) a researcher can never completely guarantee how these products may be used. Even when material is published to online journals with password-protected access, it is possible for users to copy and redistribute the media in multiple formats. One can never be completely sure that the content will not be manipulated or used for purposes unrelated to the original research project. With this in mind, researchers need to carefully communicate with participants, expressing reasonable care concerning data distribution. In a co-construction process, data can never be truly “owned” by anyone, including the researcher. Participants should be given copies of all data collected that include their contributions, if they request them. This possession at least gives the participants the opportunities to repurpose the content according to their own visions. This researcher has been conducting qualitative research with digital data for eight years and has yet to have an incident
where data, either published electronically or distributed to participants, have been used in a harmful way. If the participants believe that the benefits of more open research distribution outweigh the possible risks, then they will continue to be a part of this work.

**Conclusion**

This paper begins to assist qualitative researchers in using emerging technologies in an ethical manner. The scenarios delineated above are by no means exhaustive; they are presented as conversation-starters, an effort to stimulate critical evaluation of the issues inherent in conducting research in a digital age. Such evaluation serves the public interest by honoring individual privacy and preventing manipulation and exploitation of research participants. Many choices related to technologies are closely aligned with practices established through decades of qualitative research, beginning with observation and interview protocols and analog audio/video data-collection. Building on our traditions of ethical practice, we can collectively integrate electronic resources into our work. We need to continue to treat research participants with respect and care. “Ethical considerations are inseparable from your everyday interactions with research participants and with your data” (Glesne, 1999). Using digital data in qualitative study can extend and enrich our endeavors. Rigorous and ethical research practices will yield a body of work that will withstand the scrutiny of a global audience.

**References**


APPENDIX A: Informed Consent Documents

INFORMED CONSENT STATEMENT
Teacher & Student Perspectives of Computers in the Classroom

Teacher/Staff
You are invited to participate in a research study. The purpose of this study is to learn more about how teachers and students use computers in their teaching and learning.

INFORMATION
I will be visiting classrooms to observe and videotape activities for one or two days each week for a period no longer than two months. I will be talking to students and teachers about their ideas outside of class times, when teachers and students are available and willing to talk. I will use audio tape to record these conversations, so that I can write them down at a later time.

I plan to do these things beginning in January of this school year (2004-2005) and finish in May of 2005. Interview sessions should not last more than 20-30 minutes per session, and these will occur once a month or less for most participants.

BENEFITS
From this study, I hope we will continue to become better teachers and learners. Maybe we will even be able to offer ideas to other teachers and learners about how computers can really be used best in schools.

CONFIDENTIALITY
With your permission, excerpts from audio and videotapes and selected pictures of teachers and students will be included in my final report. Video excerpts may be used as examples of classroom practice for instructional purposes at XXXX for teacher education majors. Tapes and photos will be available for your review and will be used for instruction after the study is complete, with your permission. If you withdraw from the study, any tapes or pictures will be destroyed and not used in the final report. Besides including excerpts in a CD-ROM or DVD format, with your permission, some excerpts may be published on secure, scholarly websites. I may use them in presentations at educational research conferences. The tapes, films, and photos will not be used for any additional purposes without your additional permission.

If you would like your participation in this study to be confidential, I will certainly honor that request. However, I believe your contribution should not be hidden, if you would like to be recognized for your thoughts and views. If you agree, I will use your last name (example: Ms. Jones) in the body of my final report and list your full name (example: Barbara Jones) in the acknowledgement section of any written work.

CONTACT
If you have questions at any time about the study or the procedures, you may contact me, XXXX XXXX at XXXX (888-888-888) or home (888-888-8888) or e-mail me at xxxxxxx@xxxx.edu.

If you have questions regarding the conduct of this study or about your rights as a research participant, you may contact the Chair of XXXX State University's Human Subjects Review Board at (888) 888-8888 (hsrb@xxxx.edu).

PARTICIPATION
Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

CONSENT
I have read and been informed of the above information. I have received a copy of this form.
I agree to participate in this study.

☐ Yes, use my name in the research report.
INFORMED CONSENT STATEMENT
Teacher & Student Perspectives of Computers in the Classroom

Parents
Your child is invited to participate in a research study. The purpose of this study is to learn more about how teachers and students use computers in their teaching and learning.

INFORMATION
I will be visiting classrooms to observe and videotape their activities one or two days a week for a period no longer than two months. I will be observing classrooms during their normal instructional times during the day, as well as when they are in the media center or computer lab. All students will be observed, but only a few will be interviewed. I will be talking to some students about their ideas outside of class times, when students are available and willing to talk. Interviews will be held in the classrooms and/or media center during non-instructional times. Because of time constraints, I will not be able to interview all students, but will try to select students that represent the various perspectives present in the classroom. I will use audiotapes to record these conversations, so that I can write them down at a later time.

Students may be asked these questions: What are you trying to learn this week? Month? Semester? Year? What do you do to learn these things? How do you know you have learned these things? How do you use the computers in your classroom to learn?

I will be careful not to disrupt your child’s classroom work at school as I work on this project.

I plan to do these things beginning in January of this school year (2004-2005) and finish in May of 2005. Interview sessions should not last more than 20-30 minutes per session, and these will occur once a month or less for most participants.

BENEFITS
From this study, I hope we will continue to become better teachers and learners. Maybe we will even be able to offer ideas to other teachers and learners about how computers can really be used best in schools.

CONFIDENTIALITY
With your permission, excerpts from audio and videotapes and selected pictures of teachers and students will be included in my final reports. Video excerpts may be used as examples of classroom practice for instructional purposes at XXXX for teacher education majors. Tapes and photos will be available for your review and will be used for instruction after the study is complete, with your permission. Besides including excerpts in a CD-ROM or DVD format, with your permission, some excerpts may be published on secure, scholarly websites. If you withdraw from the study, any tapes or pictures will be destroyed and not used in the final report, besides including excerpts in teacher education courses. I may use them in presentations at educational research conferences. The tapes, films, and photos will not be used for any additional purposes without your additional permission.

I will not be using students’ real names in my final report. If names of students are included, they will be pseudonyms, not the students’ real names.
**CONTACT**

If you have questions at any time about the study or the procedures, you may contact me, XXXX XXXXXXX, at XXXXX State University (888-888-8888) or home (888-888-8888) or e-mail me at xxxxx@xxxx.edu.

If you have questions regarding this study or about your child’s rights as a research participant, you may contact the Chair of XXXX XXXX State University's Human Subjects Review Board at (888)888-8888 (hsrb@xxxx.edu).

**PARTICIPATION**

Your child’s participation in this study is voluntary; you may decline their participation without penalty. If you decide to allow your child to participate, you may withdraw them from the study at anytime. If you withdraw them from the study before data collection is completed, their data will be returned to you or destroyed.

**CONSENT**

I have read and been informed of the above information. I have received a copy of this form. I agree to allow my child to participate in this study.

☐ Yes, excerpts from video and audiotapes may be used in the final report.

Student’s name__________________________

Parent signature________________________

Researcher’s signature_____________________

Date_______________