Teaching Students to Study Online Communities Ethically

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Abstract

How can we teach students to study online communities in an ethical fashion? This paper reviews experiences from five offerings of a graduate-level, Georgia Institute of Technology class "Computer Science 6470: Design of Online Communities" from 1998 through 2005. Our current approach includes one IRB protocol for the entire class, with a notation in the consent form that the researchers are students just learning to conduct this kind of research. Most subjects use a web-based consent form (requiring a waiver of documentation of consent), but children and vulnerable groups use a paper consent form. Degree of disguising of published accounts is dependent on the sensitivity of the information. One thorny issue concerns the use of direct quotes. If a direct quote from a public online site is used in a published account of research, a search engine may reveal the original posting, compromising the confidentiality of subjects. We warn subjects about this possibility in our consent form, and require that students not use direct quotes in their papers if the content of the study is sensitive. This paper documents the origins and evolution of this approach, and problems we have encountered. We continue to refine this approach each time the class is offered.

You Have Students Do What?

How can we teach students to do research on Internet-based communications technologies in an ethical fashion? At the Georgia Institute of Technology, we offer a graduate class called "Computer Science 6470, Design of Online Communities" (see http://www.cc.gatech.edu/~asb/teaching/). Approximately forty students enroll each time it is offered (every other spring).

Course readings discuss topics like the nature of "community," identity construction, management of deviant behavior, research methods, and data analysis techniques. For their midterm projects, we require students to study an online community. They are asked to use principles from Amy Jo Kim's book Community Building on the Web to structure an investigation of design features of the site and how it functions (Kim, 2000).

I imagine the reader trembling at the thought—you send students out to study real people online? Forty of them? Aren't you afraid they will wreak havoc, and you will find yourself in the office of your Dean or IRB Chair with some explaining to do?

Fortunately, in five offerings of the class to date, no havoc has resulted. In this paper, I document how we prepare students to understand the complexities of conducting research online in an ethical fashion. I show how our approach has evolved over the years since the course was first created in 1998, and share lessons learned. Key design decisions include,

- One IRB protocol for the entire class.
- A notation in the risks section of the consent form that the researchers are students just learning to do research.
- Different consent forms for different types of subjects:
  - A web-based consent form for adult subjects. This requires an IRB waiver of documentation of consent. (Not a waiver of consent—just of its documentation.)
  - Paper-based parental consent and child assent forms for subjects under 18 years old (and other vulnerable populations).
- A research method focused on participant observation and interviews.
- Requirement that students do most of their interviews on the phone or in person, not online.
- A requirement that students openly describe themselves as researchers, and use no identity deception, even if that is common on the site.
- A prohibition from logging otherwise ephemeral conversation without explicit permission.
- Careful choice of study sites:
  - All site choices must be approved by the instructor.
  - Sites that cater to children are discouraged, because of the difficulty of recruiting subjects and getting parental consent.
  - Sites on sensitive subject matter are discouraged, unless the student has a strong personal connection to the subject and extra care is taken.
  - Sites where the students are already regular members are discouraged.
  - Successful sites typically make better study sites than failing ones.
- An approach to disguising material in published accounts that depends on the nature of the subject matter.
Subject names are changed. Site names are usually disguised, except where this is impossible. If the site can't be disguised, then more caution is needed in disguising individuals quoted in the paper. Direct quotes of material that is publicly searchable on the Internet are possible in most cases, but not used if the topic of the paper is sensitive.

I will discuss each of these in turn. Additionally, I will review some of the challenges we have faced over the years. In this account, I will assume the reader is already at least somewhat familiar with ethical issues that arise in Internet research. Our current consent form is included as an appendix and a full set of our documents appears on our website (http://www.cc.gatech.edu/~asb/ethics). Although our consent form was developed as part of the evolution of this class, members of the Electronic Learning Communities laboratory (http://www.cc.gatech.edu/etc) often find ourselves using modified versions of it in many of our studies of Internet-based phenomena.

In 1998, when this class was first offered, Internet research ethics was a relatively new subject. Our approach has benefited from writings on the subject of Internet research ethics over the years (Ess, 2002, 2004; Thomas, 1996). I participated in the 1999 American Association for the Advancement of Science (AAAS) Workshop (Frankel & Siang, 1999), 2002 Association of Internet Researchers working group (Ess & Committee, 2002), and 2004 American Psychological Association working group (Kraut et al., 2004), and those have also strongly shaped this work. Conversely, what I have learned from teaching Design of Online Communities helped shape input I was able to provide to those groups.

I have used an iterative design method to improve our approach. Each time the class is offered the teaching assistant and I observe things that could have gone better, and take notes on improvements for next time. Protecting human subjects our students study is of course our top priority, and improving the quality of the educational experience for our students is a strong second. The approach presented here began with a theoretical understanding of the issues, and has been refined over time through lessons learned in experience and also through a gradually deepening understanding of the theoretical issues as this research field has matured. The reader should note that this is an informal case study, and I have not “proven” the strengths and weaknesses of this approach in a more formal fashion.

The Georgia Institute of Technology is located in Atlanta, Georgia, in the United States of America, and our experiences necessarily are situated within an American legal and ethical context. I note that not only do the laws of other nations differ substantially, but norms of what is ethical also vary. (Even within the United States, these norms vary.) This provides unique challenges when studying users on the Internet who may be anywhere in the world.

In this narrative, issues unique to Internet research are interwoven with issues more generally applicable to the problem of teaching students to do human subjects research. I hope this account will be valuable both to those doing Internet research (not necessarily with students), and to those supervising human subjects research to be performed by students (not necessarily on the Internet).

Working with Our IRB

In the United States, studies involving human subjects typically must be cleared by an Institutional Review Board or “IRB.” Although strictly speaking this is required only for studies receiving funds from the US federal government, universities typically require that all studies involving human subjects be cleared. Even with the most supportive and helpful IRB (as we are fortunate to have at Georgia Tech), getting clearance can be a time-consuming process.

For the first four times our class was offered (1998, 1999, 2000, and 2002), our IRB declared student work in the class exempt from IRB review. We still chose to have students in the class use an informal consent form, to help educate them about human subjects research. We also required them not to work with children and others who cannot consent for themselves.

Whether the exemption is appropriate or not depends on one’s interpretation of the wording of US regulations. If student papers are for the instructor only, then they are arguably not “research.” Regardless, we found that allowing the exemption has one clear disadvantage: with the exemption, students may not publish their papers. This is problematic. Papers students have written in the class have sometimes been excellent, and worthy of publication. Perhaps more importantly, sharing a copy of the paper with members of the group studied can be construed to constitute an informal form of publication. Sharing the paper is an important way to show appreciation for the time that subjects spent with researchers, and being unable to do so is problematic.

For these reasons, we decided in 2005 that our student projects should be conducted under the auspices of an IRB-reviewed protocol, instead of an exemption. However, how does one manage twenty protocols for two-person student project teams? We have tried this in other classes (for example “Educational Technology: Design and Evaluation”), and found it problematic. Many times, students have handed in projects late because they were not able to start work until IRB paperwork was approved. The teaching assistant ends up devoting countless hours to supervising IRB paperwork, especially since some stu-
dent protocols inevitably require revision. The logistics are daunting both for the instructor, TA, and the IRB.

In 2005, we tried a new approach, and chose to create one IRB protocol for the entire class, which proved to be much more practical. The students missed the educational opportunity of actually writing their own IRB application, but were able to start their projects on time. Additionally, our over-worked IRB appreciated not getting a big stack of student projects to review. Finally, going through a more formal IRB approval process enabled us to allow students to study children and other vulnerable populations, with additional precautions described below. As student project teams selected their online sites, they were officially added to the protocol. This gives our IRB an opportunity to review the particular choice of sites, and ask appropriate questions about special precautions unique to a particular site.

Exemption from Documentation of Consent

In the strictest application of requirements for obtaining informed consent, a researcher and a potential subject meet face to face. The risks and benefits of participation are explained, and if the subject agrees, a paper informed consent form is signed and that signing is witnessed. In studies where risk is relatively low, IRBs may allow a consent form to be signed by the subject and sent to the investigators by surface mail or fax. This is the approach we have used in the MOOSE Crossing project (Bruckman, 2000). However, Internet users are often reluctant to go through this process. It’s daunting and time consuming. Under US federal regulations, it is possible to request an exemption of documentation of informed consent if “the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context” (US Title 45, Section 46.117). Note that exemption from documentation of consent is not the same thing as exemption from obtaining consent (which is much more difficult to obtain). For our class, we were granted an exemption from documentation of consent for adult subjects who are not part of a vulnerable population. This enabled us to use a “click to accept” web form for the majority of our subjects. (The full text of that form appears at http://www.cc.gatech.edu/~asb/ethics/.)

Such an approach is not, however, appropriate for children and others unable to consent for themselves. It is impossible to say “have your parent click here!” For such groups, we use a traditional paper parent/guardian consent form (with wording similar to the web-based version), and require that this be signed and sent to us via either surface mail or fax. The child assent form has simplified wording. Students in the class are warned that this process is cumbersome, and they will have to work hard to find subjects—substantially harder than their classmates working with adult subjects. Most student projects in the class can recruit subjects they meet through participant observation on the site. Project teams that choose to work with children often have little luck recruiting subjects in this fashion. In fact, the very act of an adult approaching a child online and requesting participation in a study makes many people uncomfortable. Students working with kids often find that their best route to finding subjects is to request participation from the children of friends and colleagues who happen to use the site in question. This is possible only if the site is extremely popular, making it likely that friends’ kids are members. Once one or two subjects are found, a “snowball” approach to recruitment can be used by asking those subjects to refer friends (Gay & Airasian, 2000).

Participant Observation and Phone Interviews

The research method we ask students to use is a combination of participant observation and phone interviews. As participant observers, students can take part as they normally would on the site, and take notes on their experiences. It is not necessary to request that people they interact with join the study. However, they may not record those interactions. We ask our students to never record otherwise ephemeral interactions. Whether it is legal or ethical to record otherwise ephemeral interaction online is a hotly debated topic (Hudson & Bruckman, 2004). For student researchers in this class, we have chosen to be cautious and not allow such recordings. As a result, we discourage the choice for a student project of a site that is primarily chat oriented. However, information that is publicly posted on the site in a persistent fashion may be used in their papers (but see section on direct quotations below).

Students inevitably request that some or all of their interviews be done online. In our experience, online interviews are of limited value. During an online interview, one may have an abstract sense that valuable information is being exchanged; however, on returning to the transcript later, one finds there is very little really there to analyze. Consequently, we insist that each student do at least three phone or face-to-face interviews. (Six interviews per two-person project team.) They may supplement this with additional interviews online if they wish.

When students chose to do projects that require international phone calls, they often request an exemption to this rule. We do not grant exemptions in these cases, but instead encourage students to choose another study site if the cost of phone calls is prohibitive. If students shop around for an inexpensive calling card, the cost can generally be kept reasonable. A number of projects in the class have successfully studied sites in Korea in particular. It is impor-
tant to check that study subjects speak fluent enough English to fully understand the English consent form. Otherwise, it is necessary to translate the consent form and get that translation officially approved.

We recommend that students buy an attachment (available at Radio Shack and similar stores) to connect directly from the phone to a tape recorder. A growing problem in recent years is the need to remind students that they will need access to a land phone line (not cell) and corded (not portable) phone. In 2005, more than one student realized this issue only minutes before his/her first interview was scheduled to start, and needed to apologize to the subject and reschedule.

Students often grumble about the phone interview requirement. Doing a phone interview is more daunting than just chatting with someone online. However, overcoming that fear is one point of the assignment. Over the years, students who protested the need to do phone interviews have typically commented at the end of the class that the amount of value they got out of phone and in-person interviews was an order of magnitude more valuable than the supplementary interviews they did online.

Gatekeepers and Subject Recruitment

In all qualitative research, one must deal with the question of legitimate and illegitimate gatekeepers—people one must consult before approaching other individuals. For example, a teacher is a legitimate gatekeeper for access to his/her class of students. The students’ parents are also legitimate gatekeepers. For a small Internet site, the site’s founder and administrator is a legitimate gatekeeper for approaching users of the site. For a larger site, this is not the case—it’s not necessary for example to get permission from Yahoo to study a list on Yahoo Groups. It is, however, necessary to get permission from the group’s moderator.

Occasionally, one encounters self-appointed gatekeepers whose actual authority to control access is unclear. For example, if one is studying a particular guild of a massively multiplayer online (MMO) game, it would be important to get permission from the guild leaders before approaching guild members. However, if one is studying the MMO in general, it is not necessary to consult with the same guild leaders before approaching guild members (among others) for participation in the study. Irving Seidman points out that if a self-appointed gatekeeper does not appear to have the respect of the community, it is important not to work through him for access (Seidman, 2006). Online groups present unique problems because the legitimate gatekeepers can be hard to identify in some circumstances. Student researchers often need help identifying the appropriate gatekeepers (if any) for the site they are hoping to study.

Another problem with subject recruitment concerns the archival nature of some online forums. For example, on Wikipedia (http://wikipedia.org), the accepted method of contacting members is by posting messages on their ‘talk’ pages. However, those talk pages are public and every posting is permanently archived in the history of the page. Thus, by contacting potential subjects in this method, one would be indirectly revealing their identities. As a result, students studying the Wikipedia in 2005 chose to use Wikipedia-related mailing lists to recruit subjects, rather than using members’ talk pages.

Identity and Self-Presentation

Norms for self-presentation vary for different sites (as our students learn in the course readings). On some sites, people present themselves with their real names. On others, identity play is the norm. In our instructions to students, we tell them to openly describe themselves as researchers. We do not want to deceive site members about who we are or what we are doing. We tell students that the fact that they are doing a study should appear prominently in their user profile. Students on sites with customizable 3D avatars have chosen to dress themselves in white lab coats. We ask students to be as open as possible about the project they are doing.

However, it is important not to be disruptive to the normal activity of the site in the way in which they reveal their presence. In some cases it may be appropriate to post a message describing the study; in others, it is better to simply put this information in the student’s personal profile.

In one instance in 2000, a female student decided she wanted to study part of a site that is for men only. In her project proposal, she did not make it clear that she wanted to study that part of the site. For her account on the site, she chose a male name and described herself as male. Research subjects she chose to interview discovered her real gender when she called them for interviews. One subject was angry about this, and complained to site administrators. The student consulted us for guidance, and we asked her to apologize to the community, close her account, and choose a different site for her project (with an extension on the deadline). The student correctly points out that gender swapping and identity play are common on the site in general. However, what is acceptable for a member is not necessarily acceptable for a researcher studying the site. In subsequent years, we have added to the student instructions a clear requirement that they present themselves as who they really are, even if identity deception is common on the site.
Choice of Site

Helping students choose appropriate sites is one key to their success in this project. As we have discussed, we discourage sites that cater to children, because of the inherent logistical problems. Sites concerned with sensitive subject matter are also discouraged, though these can be very successful projects if approached with care. To date, three students have studied support sites for people with a serious disease. In two cases, the student had an immediate family member with this disease; in the third, the student was a sufferer himself. These students were accepted by the communities they chose, and had the perspective to approach delicate issues with tact. We would not allow the choice of such a site if this personal connection was not there.

The most common problem that arises in students’ choice of sites is the question of whether to study a site in which they are already a regular participant. We discourage this, but do not disallow it entirely. The “perils of easy access” is a classic problem in qualitative field research (Seidman, 2006). It is initially easy to approach people one already knows. However, later, one’s personal ties to those people may get in the way of creating an honest account. Additionally, too much of an insider perspective can make it difficult for one to note things that may strike an outsider more readily. Students acting as insiders can sometimes get bogged down writing up internal politics and community gossip that are of great interest to a member but lack broader relevance. Of course, this is partly compensated by the insider’s in-depth knowledge of the site over time. However, on balance, we find that students are generally better off writing about a site with which they may have some familiarity but are not “regulars.”

There are of course exceptions to this rule. For example, one student in the class worked part time doing online tech support in real-time chat. Studying one’s place of work is clearly in the realm of the “perils of easy access,” but in this case the project was a great success. He was able to study his co-workers, and drew a compelling portrait of why this was an effective business choice for his company, and how the process of providing such support felt as a job. This was possible as a project only because the online site was quite successful—if it had significant problems, writing about them might have been problematic for his relationship with his co-workers and employer.

Over all, the most important piece of advice we give to students is to choose a fairly successful site. If a site has a thriving population, there is clearly something one can learn by studying it — what is working and why? If a site is doing poorly, it is typically harder to know why. There are often many potential reasons and no clear lessons to be drawn. There is usually more to learn from a thriving site than from a failing one.

Disguising

One of the thorniest problems concerns how to disguise names of people and sites in students’ papers. We provide students with guidelines about how to approach this problem, and ask them to consult with the instructor and teaching assistant (TA) if they have specific questions. Typically there are many questions where instructor input is needed. In addition, after papers have been graded and returned, we require that students who wish to publish them or share them with community members (which we encourage) have the TA review their papers one final time for appropriate handling of confidentiality.

Site Names, Person Names, and Pseudonyms

If it is possible to disguise the identity of the site one is studying, protecting the confidentiality of research subjects becomes easier. For smaller groups, this is simple to do and highly recommended. An online group for parasailing could, for example, be disguised as a group for rock climbing without too much loss of honesty in the account. A support group for people with a rare cancer could be described as a group for people with a blood disorder. For larger groups or unique ones, this can be difficult or impossible. It’s not feasible to refer to “a popular online auction site” without most people knowing the site in question, and substituting a different kind of site loses key features one needs to discuss. If the name cannot be disguised, then extra precautions need to be taken in disguising individuals who use the site.

Subjects’ real names are always disguised in human-subjects research. But what about online pseudonyms? I argue that they should be treated just like real names. First, people continually leak little bits of information about themselves, and those bits often aggregate to make a pseudonym de facto identifiable. Second, people often care about the reputation of their pseudonyms. Providing the pseudonym and a few keywords to a search engine may give readers a way to reach the real person. For these reasons (see Bruckman, 2002, for more information), we tell students to treat pseudonyms just like real names.

Site leaders present a special problem, because these people are often identifiable. To understand a site, particularly a smaller one, it is often essential to understand the founder and prominent administrators. However, even if we change that person’s name in published accounts, the identity of the specific person being discussed is obvious. In some cases, it is possible to disguise the site itself. If it is a support group for a particular medical condition, one can substitute a different condition. If the site is prominent or in some way unique, disguising it may not be possible. This creates an ethical dilemma.

Journalistic ethics allows for the notion of a “public figure” (“Society of
Professional Journalists [SPI] Code of Ethics," 1996). Some people, by their acceptance of a prominent public position, are entitled to less privacy. This has not traditionally been an acceptable approach for science and social science, but we wonder if a hybrid approach might be ethical. One avenue we hope to explore in the future is the development of a "public figure" consent form, in which the individual acknowledges that he/she may be identified in the final account. It would be necessary to state in the risks that the portrayal of the person might not be entirely flattering. This would let us, for example, interview someone like the founder of eBay or the community manager of World of Warcraft, and know that this person could be quoted and understood the risks involved. This possibility is clearly pushing the limits, and we have not yet discussed this possibility with our IRB.

In the absence of some kind of "public figure" exemption, we must rely on disguising the site. If it cannot be effectively disguised, then we must fall back on a "light disguise" approach (Bruckman, 2002). In light disguise, enough is altered to make the person's identity not immediately obvious, but a determined person could figure it out. Since the disguise is not bullet proof, it is necessary to omit things that the person might find embarrassing or less than flattering. Often this is unproblematic. In cases where omissions damage significant aspects of the research account, we must consider the possibility of omitting the subject entirely, since an honest portrait is not possible.

Direct Quotations

Direct quotes provide another problem unique to Internet-based research. Sometimes our subjects have discussions in online forums that are searchable. If these postings are freely available online, then arguably one can quote them without permission—they are de facto published material. However, if we then interview those same people, our interview transcripts are human subjects’ data that must be kept confidential. The problem comes when these two become linked. To construct a silly example, suppose we interview Chicken Little, and change his name to Frog in the final published account:

Frog posted online that "the sky is falling." In further interviews, he commented that this was just a figure of speech.

If what our subject posted is unique, a web search will uncover the original posting, and anyone who cares to know will be able to discover that Frog is really Chicken Little. The problem is not the original posting (that is public), but rather the revelation of the real name of our private interview subject.

One way to handle this problem is to split Chicken Little into two people in our final account—one to whom we attribute the publicly available content, and the other to whom we attribute the private interview comments. However, typically, interviews are used to enrich our understanding of online behavior, and this schizophrenic solution is not always helpful.

Another possibility is to once again use "light disguise." If we do not say anything embarrassing about Chicken Little, it is not as problematic that a determined person could unmask his Frog disguise. This leads to the most complex section of our consent form:

To protect your confidentiality, your name will not appear in any publications; a pseudonym (a fake name) will be used instead. However, in the case of quotes from things you have done online (such as blog entries, forum posts, etc), this disguise could be vulnerable—a determined and skillful person could potentially break it. Since many online sites are open to the world, search engines (e.g., Google) index them. As such, a person could take a quotation and use a search engine to find the actual post, thereby breaking the pseudonym disguise. We do not anticipate that this research will uncover sensitive information, but in case it does, other strong precautions will be used to protect your confidentiality.

Teaching This Approach to Students

The question that remains is how do we teach this approach to our student researchers? One 90-minute lecture is devoted to the topic, and we insist that all students attend that lecture. Attendance is taken, and the lecture is audio-taped for any students with an unavoidable conflict such as illness. Students who miss the lecture must listen to the tape and meet with the teaching assistant before they are allowed to start their project. The consent form itself scaffolds the students’ activities, explaining much of what they are to do. This is supported by an ethics checklist, which reminds students of all key features of the approach. A copy of the latest version of the checklist and all other supporting materials for the class are provided on our website (http://www.cc.gatech.edu/~asb/ethics). Students are encouraged to talk to the instructor or TA if they experience any problems. In each class, from the start of the assignment until projects are completed, we reserve a few minutes to discuss projects in progress, and any problems that may have been encountered.

Problems

Through a combination of good luck and good planning, we have had no serious adverse incidents to date, and only a few minor ones. The gender swapping student described above was the only instance in which a student had to abandon a project because of ethical problems. One other incident merits men-
tion. In 2002, one student project team studied LiveJournal. In the course of an interview, they asked one subject how he felt about the fact that anyone could read his blog — including, for example, his parents and teachers. This possibility had not crossed his mind, and after the interview he deleted much of his blog.1 We certainly do not want to upset our subjects, so in a sense this could be considered an adverse incident. On the other hand, one could also argue that the interview served an educational purpose, and the subject’s newfound caution about self-revelation online can be construed as a benefit of participation in the study.

Protecting Students from Internet Users

Although it is obvious that we need to protect the general public from inexperienced student researchers, it came as more of a surprise that we sometimes need to protect our student researchers from some members of the general public. In 2005, one student in the class was the victim of racism. The student is of Arab descent, and a few members of the site he was studying accused him of being a terrorist and targeted other racist insults at him. They used search engines to uncover personal information about him and posted it online. While this was offensive and upsetting, we did not feel that the student’s safety was at any real danger. We counseled him to simply not reply, since the perpetrators were likely to be egged on further by any kind of response. The student was given the option to start a project on a different site with an extension on his deadline; however, he chose to continue his work. Politically-oriented flaming is common on this particular site, and he found the incident interesting. In the future, we will warn students of this possibility and emphasize that they consult the instructor before responding to any such incident.

Conclusion

Studying online communities in an ethical fashion is a challenge for the most experienced human subjects researcher—this new medium continually raises novel ethical issues. It is not surprising, then, that teaching this process to students presents challenges for both the students and instructor. A familiar cliché indicates that the best way to learn something is to teach it, and this seems to apply in this case. Through the process of trying to teach student researchers to conduct Internet research ethically, I find I have gained insights into my own practice. Innovations from Computer Science 6470, “Design of Online Communities,” have benefited my research. The approach documented in this paper is by no means “correct” or “proven,” and it continues to evolve.

I hope this account will be helpful to others teaching about and researching Internet phenomena.

Note

1. Today, most blogging sites support greater access control, and it is possible to simply limit who can see a post rather than deleting it.

References


Appendix: Web-based Consent Form

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