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A review of research ethics in internet-based research

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Abstract

Internet-based research methods can include: online surveys, web page content analysis, videoconferencing for online focus groups and/or interviews, analysis of 'e-conversations' through social networking sites, email, chat rooms, discussion boards and/or blogs. Over the last ten years, an upsurge in internet-based research (IBR) has led to increased interest in IBR and research ethics. Here we present some ethical guidelines for IBR while accepting that it would be unrealistic to expect that any single set of guidelines can cover all ethical situations concerning IBR. There is simply too much diversity across internet cultures, values and modes of operation for that to be the case. Perhaps the most useful solution to the complex challenges of IBR lies with a form of 'negotiated ethics', a situated approach grounded in the specifics of the online community, the methodology and the research question(s). This does not mean an 'anything goes' relativist approach, rather an open, pluralistic policy in relation to IBR ethical issues (Ess, 2009; AoIR, 2002).

Introduction

Over the last ten years an upsurge in internet-based research (IBR) has led to increased interest in IBR and research ethics (from herein referred to as IBRE). This review paper considers a range of issues relevant to IBR, including public and private spaces; risks to participants and IBR and informed consent. Finally, we present some general guidelines for researchers and ethics review panel members.

IBR methods can include:

- online surveys
- web page content analysis
- videoconferencing for online focus groups and/or interviews
- analysis of e-conversations through social networking sites
- email
- chat rooms
- discussion boards and/or blogs.

When discussing the broader aspects of human rights in research, Beyrer and Kass (2002) point out that research ethics is a balance between risks and benefits, assurance of the rights of individual participants and the fair selection of research populations. Researchers are required to ensure that participants autonomously and voluntarily consent to take part in research. An informed consent process that describes the research study, explains the rights of participants and states the risks and benefits associated with participation, ultimately protects both the researcher and the participant.

However, there appears to be a ‘technology lag’ where ethics has played catch-up to the various methodological options available to the researcher (Hair & Clark, 2007). Internet communication in itself presents a number of important ethical challenges. Eysenbach and Till (2001) suggested that IBR raises several ethical questions, especially pertaining to privacy and informed consent, although it could also be a rich source of data for qualitative researchers. When considered together with the technical properties and social dynamics associated with networked publics, distinct online ethical concerns arise. These include: issues of privacy; intellectual property rights; trust; and authenticity. For example, Davis et al. (2010) highlight the disinhibiting effects of internet communication (see also Griffiths, 2001).

Two documents that are frequently cited in relation to IBRE are Frankel & Siang’s 1999 workshop paper on internet research; and guidelines produced by the Association of Internet Researchers (AoIR, 2002). In terms of informed consent, the AoIR (2002) highlights three significant areas:

- the prevalence of anonymous communication
- the global accessibility of internet material
- the often blurred distinction between private and public spaces (Eysenbach & Till 2001).

Flicker et al. (2004) support this view. They discuss three situations in which ethical predicaments arose in their (youth-focused) research using an online message board. These were:

- enrolling research participants
- protecting participants from risk or harm
- linking public and private data

Public and private spaces

One of the central issues with IBR is what constitutes ‘public’ and ‘private’ spaces, with corresponding implications for whether or not informed consent is required. Broadly speaking, the literature concerning IBRE supports the use of informed consent in private spaces but is less clear about public spaces. To some extent, this mirrors real-world research settings, where activities such as observing crowd behaviour at a football match would usually be considered ethically acceptable. However, the boundaries in online environments are less distinct. Eysenbach and Till (2001:1104) suggest that to determine whether informed consent is required, it is first necessary to decide whether communication is private or public.

As a starting point, there is an issue of data chronology. For instance, Holmes (2009) points out that data from message boards and chat rooms is publicly accessible for years after it has been posted. It may also be difficult, if not impossible, to find participants some years after they have posted message(s). This could lead message boards and chat rooms to be viewed in the same way as a newspaper archive, with postings the equivalent of letters and correspondence, which are typically viewed as legitimate sources of data by social historians.

Eysenbach and Till (2001) note that while publication on the internet may have parallels with publishing a letter in a newspaper or speaking in a public meeting, there are what they term ‘important psychological differences’. People participating in an online discussion group cannot always be assumed to be seeking ‘public visibility’. The difficulty is that while members of discussion groups may view their communications as private, in reality they are probably accessible to anyone with internet access, and could therefore be viewed as being in the public domain (Holmes, 2009).

Given such ambiguities associated with IBR, it is perhaps not surprising that a range of views exists about what constitutes private and public, with implications for informed consent. Infamously, the Project H group (quantitative study of discussion groups) considered the internet a public place and therefore “fair game” in terms of research (Watson et al., 2007; McKee, 2008; Hair & Clark, 2007). Similarly, Walther (2002) views participants who expect privacy as misguided (see also Watson et al., 2007). Denzin (1999) argues that postings on bulletin boards are public so there is no need to disclose research activity to discussion groups. Conversely, King (1996) argues that it is the researcher’s responsibility to protect participants’ expectations of privacy.

Hudson and Brook (2005:298) discuss ‘reasonable expectations of privacy’ and argued that members of ‘public online environments often act as if these environments were private’. Eysenbach and Till (2001) also state that the perception of privacy very much depends on a particular group’s protocols and privacy boundaries, target audience and aims, which vary greatly from group to group.

Hudson and Bruckman's (2004:135) study of chat room users' perception of privacy identified that 'individuals in online environments such as chat rooms generally do not approve of being studied without their consent'. In such environments, researchers should also be aware of the possibility of inadvertently identifying subjects (Anon, 2010). Similarly, Barnes (2004) relates that members of public discussion forums can become angry when their private communications are used for research, even though they take place in a public forum. Some commentators suggest that online data ought to be viewed as being along a continuum from very private and potentially sensitive to public and non-sensitive (Anon, 2010). In reality, however, the boundaries of public and private spaces overlap in cyberspace (Watson et al., 2007; Waskul & Douglas, 1996). Further complicating the issue is the frequent changes to protocols and privacy boundaries on social and chat room websites (Anon, 2011).

As a mechanism for guiding researchers through such difficult terrain, the AoIR (2002:7) guidelines suggest that if participants in online environments assume or believe that their communication is private, there should be a greater obligation on the part of the researcher to protect individual privacy (through maintaining confidentiality and anonymity and seeking informed consent). If, on the other hand, the research focuses on publicly accessible archives or environments intended by their authors/members to be public or performative, then there may be fewer obligations to protect individual privacy.

Similarly, Hair and Clark (2007:793) argue that researchers should ask themselves what the nature of privacy is online and take great care in understanding the difference between what 'can be done with what should be done'. For, as Holmes (2009) states, regardless of being in a public environment, individuals may not be aware of the accessibility of their materials or that their messages are being analysed.

Risks to IBR participants

Holmes (2009) suggests that in general, most online research involves minimal risks to participants. However, she discusses three potential sources of harm: when the questions asked provoke emotional reactions; a breach of confidentiality; and where the welfare of an online group or chat-room is damaged (see also Eysenbach and Till, 2001). It is also more difficult for researchers to monitor participants during the research process and to step in where necessary (Kraut et al., 2004).

Hair and Clark (2007) also question how harm can be managed in online environments given the physical, emotional and psychological distance involved compared with traditional face-to-face settings. They set a number of questions that they suggest researchers should pose prior to commencing the research. These include:

- What does dignity mean in the specific electronic community?
- Who defines what is right and wrong in research terms?
- Should this be the researchers, the online community and/or the list owner or moderator?

It would seem, therefore, that on balance IBR is less likely to lead to known harm (than face-to-face research). However, if harm does occur, it is more difficult for researchers to do anything to help. This has implications for informed consent.

IRB and informed consent

Hudson and Bruckman (2004) consider whether it is necessary to obtain consent from participants in relation to IBR and if so, what kind of consent. This clearly raises a number of important ethical issues (McKee, 2008). Hudson and Bruckman (2004:138) state that while obtaining consent in investigating chat room environments is 'impracticable', this raises difficult ethical questions about whether it is right to study chat room participants without their consent and/or disturb all participants to obtain consent from a few. The answers to this are, of course, not clear, largely because the parameters will change from situation to situation. Eysenbach and Till (2001:1105) suggest two main approaches for obtaining informed consent in relation to internet communities, but each has its shortfalls:

Approach	Shortfalls of approach
<i>Send an email to the chat room mailing list, explaining the research and giving members the opportunity to withdraw from the research.</i>	<i>Potentially intrusive Can only be carried out where such lists exist May influence future communication patterns</i>
<i>Retrospectively request consent from each person whose postings have been used</i>	<i>Time-consuming Cumbersome, particularly if the discussion group has thousands of members (Hair & Clark, 2007)</i>

They suggest that contacting the list owner for advice about seeking consent from the group, whilst flawed (for example, groups may be very large or have a high turnover rate (AoIR, 2002) is perhaps the best option in many instances.

Holmes (2009) and Flicker et al. (2004) suggest posting research information on a message or discussion board in an online environment and asking for volunteers. Holmes also cites the example of Lewis (2006), where a relationship of trust was established between the researcher (who initially operated as a fellow user of the group) and the online community before individuals were asked to take part in a study. This raises issues of deception (researchers deliberately concealing the purpose of their study) and honesty. As Hair and Clark (2007) indicate, acting as a member of a group will always have some impact on the group. What if the purpose of the research might otherwise limit participation unless there was a level of trust between researcher and prospective participants?

Madge (2007) cites the example of Glaser et al. (2002) who collected data from chat rooms associated with white racist groups (the research concerned violence against ethnic groups). They covertly carried out 38 semi-structured interviews with participants through these chat rooms. The basis of their argument for not seeking informed consent was that the act of revealing the researchers' identity and purpose of the research would have deterred open expression of views. They were able to gain ethical approval (from Yale University, US) on the grounds that the respondents' statements were made in a public form, the deception was necessary for the research to be undertaken, and the respondents' identities were carefully protected (Madge, 2007:658).

However, as Haigh and Jones (2005:5) point out, in contrast to the USA European citizens enjoy stringent levels of personal data security thanks to the European Union Data Protection Directive (1995). Accordingly, research participants must: understand why and how data is being collected and for what purpose it is being used (Flicker et al. 2004); have the right to opt out of data collection; and be protected from having their data transferred to countries with less rigorous level of protection of privacy.

The removal of names to protect identifies does not necessarily ensure anonymity.

Similarly, 'lurking' in discussion groups and collecting data before coming clean towards the end of the research is seen by some researchers as legitimate, and by others as highly problematic (Eysenbach & Till, 2001; Wilkins, 1991; Hair & Clark, 2007; Madge, 2007). For example, Chen et al. (2004, cited in Madge, 2007) propose that 'lurking' is an important research act prior to gaining informed consent, to understand the topics and tone of exchanges in a mailing list or newsgroup before becoming involved. Eysenbach and Till (2001), however, argue that researchers 'lurking' in online communities might be viewed as intruders and could potentially damage some communities.

Madge (2007) suggests that this issue may not always be clear-cut; what starts out as an open and honest account of research aims may over time become 'lost', particularly in groups with a quick turnover of membership or as existing participants forget about the research.

Ray et al. (2010) provide a useful summary of the issues associated with IRB and consent. They argue that because researchers are generally not physically present during the consent process, they lack control over the assessment process, more specifically in relation to the verification of eligibility and competency to consent. This also limits the ability of researchers to deal with risks that may develop as a result of study participation, such as emotional distress (Blackstone et al., 2008, Ray et al., 2010; Hair & Clark, 2007).

IRB also lends itself to possible abuse such as the falsification of responses (Ray et al., 2010). However, as Madge (2007) notes, such issues can also affect onsite research, for example postal questionnaires.

Whilst processes do exist to check that IRB participants both understand and are able to give informed consent (for example, participants could be asked to answer questions based on the consent form or participant information sheet; age verification through cross-checking with other information, the use of passwords for research for study entry) such strategies may compromise confidentiality and anonymity (Ray et al, 2010:88, Holmes, 2009). The AoIR (2002) note that the goals of a research project may also shift over time (particularly in relation to qualitative/emergent research) so deciding not only if but when to seek consent may require particular attention.

Summary

As Watson et al. (2007) indicate, it is probably unrealistic to expect that any single set of guidelines can cover all ethical situations concerning IBR. There is simply too much diversity across internet cultures, values and modes of operation for that to be the case. The AoIR (2002) guidelines, while useful, can only go so far. As Hair and Clark (2007) indicate, what counts as ethical research in one community will clearly differ from the next. Thus, while the nature and diversity of IBR make it difficult to be prescriptive, perhaps the most useful solution to the complex challenges of IBR lies with a form of 'negotiated ethics'. This situated approach is grounded in the specifics of the community, the methodology and the research question(s). This does not mean an 'anything goes' relativist approach, but rather an open, pluralistic policy in relation to IBR ethical issues (Ess, 2009; AoIR, 2002). Flicker et al. (2004) point out that it is imperative that those conducting research online continue to be reminded of the importance of ethical conduct.

As Holmes (2009) indicates, ethical and legal frameworks require that human participants are protected from harm during research. This is reinforced in the AoIR report (2002). While the internet does not alter this, specific areas of IBR present challenges to researchers, specifically obtaining informed consent and the boundaries between public and private spaces. Fundamentally, however, the application of ethical principles should not be compromised when using the internet as a source of research respondents. The traditional processes of obtaining informed consent can be upheld, though the format and medium for this may be different.

Based largely on the work (and credibility) of the AoIR (2002) and Ess (2002, see also Ess, 2009), Madge (2007) suggests that for private or semi-private sources (for example, email or closed chat rooms) informed consent should be considered essential. In open-access forums (for example, newsgroups, bulletin boards), however, informed consent may not always be required.

The internet is usually considered a public place and public behaviour does not necessarily require informed consent. However, the diversity and complexity of internet communication is such that the issues discussed here should be thoroughly addressed before any IRB commences (Watson et al., 2007). Finally, we have developed Figure 1. from the preceding discussion, primarily as a mechanism for aiding the initial discussions between researchers, online communities and research ethics committees (RECs) when considering IBR.

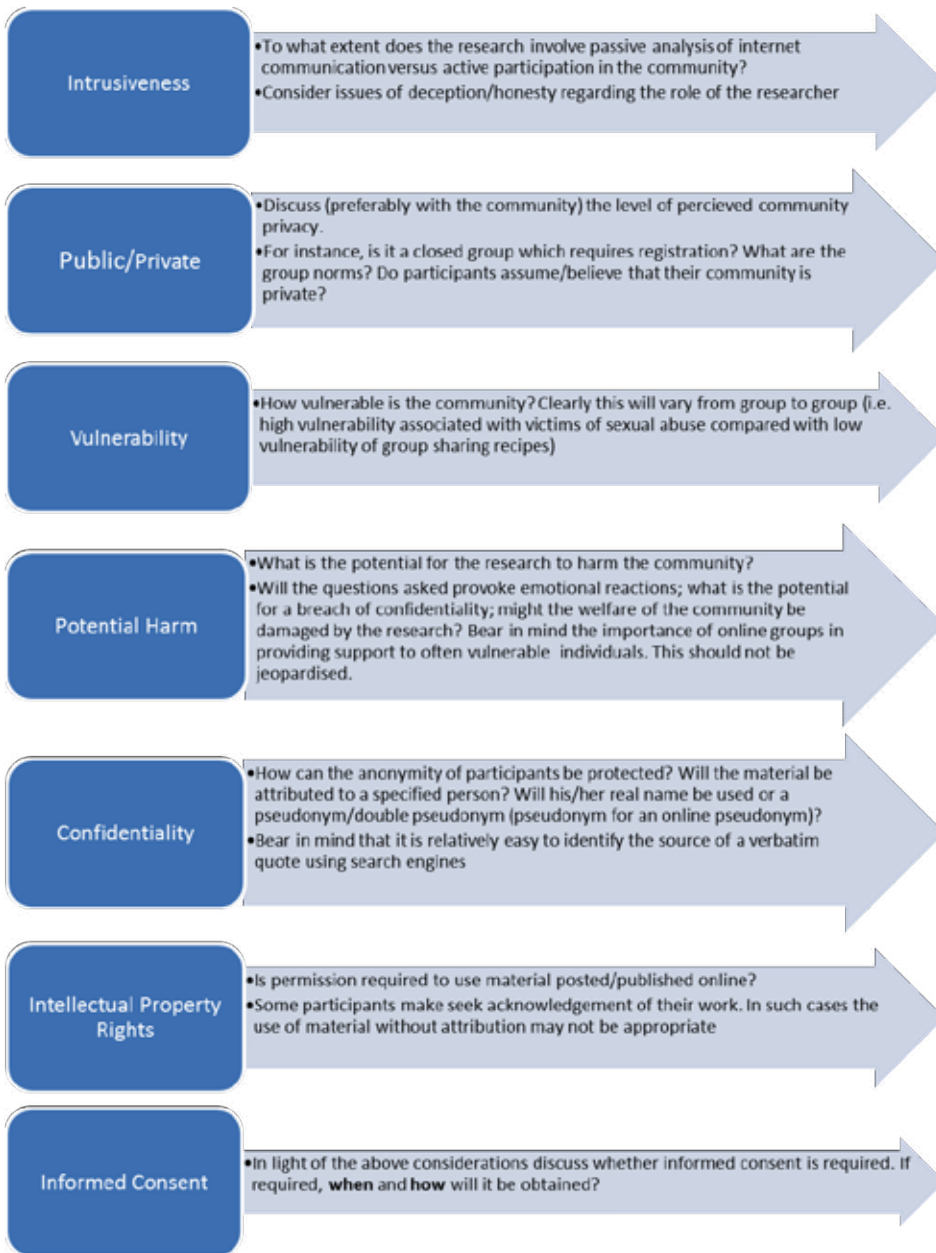


Figure 1. Ethical guidance note for internet-based research and ethical considerations (after Eysenbach & Till, 2001; AoIR, 2002; Hair & Clark, 2007; Holmes, 2009; Ess, 2009).

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