INTRODUCTION AND BACKGROUND

The Internet, as a global research phenomenon, has developed along two parallel lines: as a medium for research (e.g., databases, electronic indexes, online catalogs) and as a field or locale of research (e.g., MUDs, MOOs, online communities, Usenet, listservs, blogs, etc.). This article will discuss this second phenomenon, and the ethical implications that arise with such research endeavors, an emerging field known as Internet Research Ethics (IRE). Specifically, this article will call attention to the major areas of online research ethics, while acknowledging that hard-and-fast “answers” to some of the questions are elusive. IRE fits into a larger framework of research and information ethics, both of which have a longer history and more firmly established research base from which to inform this growing field.

Academic researchers conducting human subjects research are typically bound by a formal human subjects protection model. In the United States, for instance, the Code of Federal Regulations codifies human subjects protections in Title 45, Part 46 CFR. The CFR was informed by the 1979 policy statement, The Belmont Report, which outlined three distinct areas of importance:

1. **respect for persons**, which involves a recognition of the personal dignity and autonomy of individuals, and special protections for those with diminished autonomy—such respect is in part garnered through an informed consent process;

2. **beneficence**, which entails an obligation to protect persons from harm by maximizing anticipated benefits and minimizing possible risks from research; and

3. **justice**, which requires that risks and benefits are distributed equally and requires that subjects be fairly selected.

Similar protections are afforded across the world. Canada’s research ethics programs are dictated by the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, while Australia’s are codified in the Policy Statement: Ethical Conduct for Research Involving Humans. Countries across the European Union differ in their codification and policies surrounding research ethics (Sveningsson, 2004).

These extant guidelines and policies are grounded in and on the idea of human subjects work, and stem, generally, from a biomedical perspective, with examples of such research atrocities as the Nuremberg Trials and the Tuskegee experiments. The idea that researchers be bound both legally and ethically for harms done to their subjects or participants stems logically from the medical and applied sciences, and was more recently brought into the social sciences and humanities disciplines, noting that debate continues surrounding the applicability of such protections models in research such as oral histories.

With the emergence of Internet use throughout the 1990s, researchers found a new fertile ground for social, behavioral, and humanistic research opportunities that differed greatly from their biomedical counterparts. As such, “populations,” locales, and spaces that had no corresponding physical environment became the focal point—or site—of research activity. Questions then began to arise: What about privacy? How is informed consent obtained? What about minors (Stern, 2004; Bober, 2004)? What are harms in an online environment? Is this really human subjects work (White, 2003)? And ultimately, what are the ethical obligations of researchers conducting research online, and are they somehow different from other forms of research ethics practices?

Throughout the 1990s, then, disparate disciplines began, in piecemeal fashion, looking at these ethical complexities and implications of conducting research online. Whether or not such research ethics guidelines...
as *The Belmont Report* “fit” or were applicable was at best uncertain. Also, while interesting and important ethnographies of Internet reality and the ethical quandaries associated with studying them such as Markham’s *Life Online* emerged, other more “rudimentary” forms of online research through Internet-based survey tools exemplify a host of ethical issues facing researchers using the Internet in its various capacities. The debate began to take serious academic form when one of the first journals devoted entirely to the IRE appeared in 1996, in a special issue of *The Information Society*, and then the American Association for the Advancement of Science funded a workshop on IRE in 1999. Further evidence of the recognition of IRE came through the release of the Association of Internet Researchers Ethics Working Group’s report on *Ethical Decision Making and Internet Research*, chaired by Dr. Charles Ess, in 2002. Such consideration occurred among researchers, policy makers, and such entities as institutional review boards, which were seeing an extraordinary increase in the number of Internet-based research protocols (Buchanan, 2003, 2004). Also, such prominent professional societies as the American Psychological Association convened a Board of Scientific Affairs Advisory Group on Conducting Research on the Internet, releasing a report in 2004 in *American Psychologist* (Kraut et al., 2004). And finally, three books in the field of IRE were published between 2003 and 2004 (Buchanan, 2004; Johns, Chen, & Hall, 2003; Thorseth, 2003). These were all, indeed, important moments in the development of IRE as a discrete research phenomenon, and promoted serious consideration about the ethical implications of research in online or virtual environments.

**MAJOR ISSUES IN INTERNET RESEARCH ETHICS**

Throughout the IRE literature, specific themes have emerged as significant; these are now reviewed, with a major emphasis on the types of questions promoted in and through online research. Some have debated whether cybertechnologies in particular or technologies in general create new ethical issues, or whether there are “old” ethical issues simply exacerbated by or through technology (e.g., Tavani, 2004; Spinello & Tavani, 2004). This debate can apply to Internet research ethics. One can argue, research is research, and ethical issues emerge in either online or onsite studies. But, there is something significantly worthy of note about online research, and as more researchers see the potential of such research, serious examination of the ethical issues grows as well. While they are presented as discrete, insofar as possible, IRE issues are complex and intertwined due to Internet technologies and the nature of research when conducted in online environments.

**Anonymity/Confidentiality**

One of the most binding promises researchers make to their subjects or participants is to protect their privacy and their identity, should revealing something about them cause undue harm, embarrassment, or some other tangible loss. *The Belmont Report*, for instance, demands that privacy of subjects is protected and confidentiality of data is maintained. In online environments, researchers must ask: Is there a truly secure online interaction? What type of Internet location/medium is *safe*st? Is an “anonymous” survey really possible? How will subjects/participants be protected? Is encryption enough? These are data integrity issues, and often, researchers do not have the control possible over an online site to be able to secure the interaction from hackers or other forms of data corruption or interference. For instance, a researcher may promise to maintain confidentiality over the data she collects; confidentiality is defined by the U.S. model as pertaining to the treatment of information already revealed. There is an expectation that “the data will not be divulged to others in ways that are inconsistent with the understanding of the original disclosure without permission” (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). In online research, an ethical breech may occur not due to researcher negligence but circumstances beyond her control. Data may be collected online, and the researcher is not the only one to have access to it; others in an online forum, archiving sites, or other back-ups may exist that reveal the source of some data. The researcher may not be in control of this.

Moreover, can a research participant be anonymous online? One may have a “different” online identity, but that is still that individual in a corresponding physical environment. If an electronic persona is portrayed in research on an electronic support group for a medical condition, will she be identifiable? If so, at what risk? Is there the potential for significant harms to the