Computer ethics: current perspectives and resources

Sociology, Ethics

1. Some Current Perspectives on Computer Ethics When James Moor's classic article, " What is Computer Ethics? " appeared in the October 1985 issue of Metaphilosophy, the impact of computers and information technology on our social institutions was arguably very different from its effect today. 1 At that time, the World Wide Web was still several years away from development; and the Internet, at least as we know it today, was in its infancy. 2 Also, in 1985 personal computers were relatively new and were owned by proportionately few persons.

The image of computers held by many, then, was that of a large, " unfriendly" mainframe—i. e. a giant machine whose operations were understood only by a select few technical " gurus" capable of writing programs in esoteric languages. Today, of course, a computer is no longer viewed merely as a machine that " crunches numbers," but is perhaps more commonly thought of either as a communications medium through which one is able to conduct many of the affairs of one's day-to-day life or as a tool that is essential for carrying out many of one's tasks in the workplace. Indeed, it would be difficult now for many us to imagine our lives without computers.

Because computer technology has changed significantly in recent years, one might assume that the issues on which computer ethicists focus today would have evolved accordingly. In one sense, that assumption would seem correct; in another sense, however, it would not. In the " early days" of computer ethics, much of the focus was on concerns related to the storage

and exchange of personal information in large databases in both the public and private spheres.

For example, in the 1960s and 1970s some feared that the ederal government would create a huge centralized database of electronic records with extensive information about each citizen. In the private sphere, there was—and still is—much concern about the exchange of personal information contained in electronic records that reside in commercial databases. As personal computing became widespread in the 1980s, questions having to do with whether it was ever morally permissible to use a computer to copy proprietary software programs, as well as more general questions involving intellectual property rights, were added to the list of issues given serious consideration by computer ethicists.

And with the advent of the Internet and the Web, questions about certain forms of online behavior—e. g. , online activities alleged by some to raise " new" concerns related to free speech, anonymity, and so forth—have also come to be included among the issues currently considered. As mentioned above, the purpose of this essay is to discuss the current state of the field of computer ethics.

So I will say nothing further about its historical development. For an excellent discussion of the history of computer ethics, see Bynum (1999) [See also " A Very Short History of Computer Ethics" by T. W. Bynum in this issue—ed.]. The remainder of Section 1 will focus on three current areas of debate in computer ethics: (1) the question of " uniqueness" of computer ethics issues;

(2) computer ethics methodology; and (3) speculation about the impact of globalization and the Internet on the future of computer ethics. 1. 1 Are Computer Ethics Issues Unique Ethical Issues? The legitimacy of computer ethics as a separate field of applied ethics has been and continues to be challenged.

One aspect of this challenge is apparent in an ongoing debate over whether there is anything unique or even special about the moral problems considered by computer ethicists. At one end of the spectrum are those who believe that, essentially, there is nothing new or special about ethical issues involving the use of computers. Proponents of this view claim that privacy violations are privacy violations and that theft is theft whether or not the particular privacy violations or particular thefts happen to involve the use of computers.

At the other extreme are those such as Walter Maner (1996) who hold that computer use has generated a series of new and unique ethical issues that could not have existed if computer technology had not been invented. Maner argues that the " failure to find satisfactory non-computer analogies" for moral issues involving computers " testifies to the uniqueness of computer ethics. " Deborah Johnson (1994) has taken what could be viewed as a middle ground in this debate.

Using a genus-species analogy, she suggests that ethical issues raised by computer technology can best be understood as a " new species" of (existing) generic moral problems. Johnson has also suggested that one's

perspective on this debate is often influenced by one's starting point. She notes that if one starts from the vantage point of technology, for example, one is drawn to the uniqueness of many of the features of computers. On the other hand, if one starts with ethics, one focuses more broadly on human behavior and human values.

What brings the two starting points together, she argues (Johnson, 1999), is the recognition that technology provides the " instrumentation of human action. " 3 A somewhat different approach to the question of uniqueness has been taken by James Moor (1985) who argues that because computer technology, unlike previous technologies, is " logically malleable," 4 it gives rise to " new possibilities" for human action.

These new possibilities can, in turn, create certain " vacuums"—i. e. , vacuums regarding normative rules and policies (viz. " policy vacuums") to guide the new choices for action made possible by computers, and vacuums regarding conceptual frameworks that enable us to understand clearly the nature of certain normative issues that emerge. Moor claims that even after the " conceptual muddles" are resolved and the emergent issues have become more clearly understood, we sometimes discover that existing policies cannot be applied easily to those issues. So we often need to create and justify new policies in response to certain vacuums generated by computing technology.

On Moor's analysis, then, computer ethics is the specialized field of identifying policy vacuums created by computers, clarifying conceptual

confusions surrounding those issues, and then formulating and justifying new policies for those areas in which either there are no existing policies or where existing policies cannot be adequately extended. The field of computer ethics is needed, Moor (1998) argues, because " routine ethics" is not able to handle adequately many of the normative issues that can and do arise from the use of computing technology.

For many philosophers working in computer ethics, Moor's description best captures the methodology of this relatively new field of applied ethics. As noted in the preceding section, Moor argues that not only must we revise existing policies and frame some new ones, but we must also justify those policies. To justify policies involving moral issues, philosophers have typically appealed to one or more standard ethical theories. But some have questioned whether it would always be possible to appeal to such theories when attempting to resolve computer ethics issues, especially if at least some of those issues are unique ethical issues.

Although a number of philosophers have recently argued that traditional ethical theories—e. g. , utilitarian, deontological, and aretaic (virtue ethics) theories—cannot be easily applied to all computer ethics issues, their reasons for holding such a view, as well as the alternative theories they put forth, differ markedly. Luciano Floridi (1999), who believes that the greatest challenge to computer ethics in terms of its philosophical status is methodological in nature, has recently claimed that the issues of computer ethics " strain" the conceptual resources of traditional ethical theories.

Although some might disagree with Floridi, others have put forth either new theories or new variations and combinations of standard ethical theories in order to resolve computer ethics issues. Jeroen van den Hoven (1997), for example, believes that a theory, first articulated by John Rawls, called " The Method of Wide Reflective Equilibrium" (WRE), offers the " best model of practical moral reasoning available for justifying new policies involving computer ethics issues. Using an example involving the privacy debate, van den Hoven illustrates how the WRE method can be applied. A somewhat different approach has recently been suggested by Bernard Gert (1999) who believes that his system of " common morality" (developed more fully in his book Morality: Its Nature and Justification, Oxford University Press, 1998) can help us to understand better, and in some cases resolve, moral issues associated with computing technology.

Gert illustrates his methodology via an example involving software piracy. Building on an aspect of Gert's theory of common morality, involving the notion of impartiality, Moor (1999) has recently developed a conceptual framework called " just consequentialism. " To show how his " just consequentialist theory" can be applied to policy vacuums resulting from computer technology, Moor considers a scenario involving the installation of defective software chips.

Globalization, the Internet, nd the Future of Computer Ethics Because of the global impact of computing in recent years, and because of the merging of computing and communications technologies that has also recently occurred, the field of computer ethics might be perceived as one that is

currently in a state of flux or transition. One question surrounding this "
unsettled" state has to do with what the field should now be called—i. e. ,
does the expression " computer ethics" still capture adequately the nature
and scope of issues currently entertained?

Bynum and Rogerson (1996) have suggested the use of the expression "
Global Information Ethics" to describe the field. Others (see van den Hoven,
Introna, Johnson, and Nissenbaum, 1999) have used the expression "
Information Communications Technology Ethics" or ICT Ethics to attempt to
capture the convergence of information-related and communications-related
ethical issues in a global context. To date, there is no clear agreement on
what new label should be used to describe the field; nor, for that matter, is
there agreement that a new label is needed.

Another question of current interest has to do with the impact of the Internet
and the Web for the field of computer ethics. Has Internet technology made
possible certain ethical issues that could not have existed (or at least did not
exist) in the pre-Internet era? Johnson (1997) has argued that with respect to
ethical considerations, Internet technology has three special features or
characteristics worth considering: its scope, which is global and interactive;
the ability to communicate with anonymity; and the reproducibility of
information on the medium.

Although she notes that these features may make a " moral difference in
that they make behavior in an electronic network morally different from
offline behavior," Johnson does not claim that the Internet has introduced

any new ethical issues. Some authors, however, now use the expressions " Internet Ethics" (see Langford, 2000) and " CyberEthics" (see Spinello, 2000) in ways that might suggest, at least initially, that the Internet has generated new ethical issues and that possibly a separate field of study dedicated to ethical issues involving this relatively new medium is needed.

Clearly, the Internet has perpetuated and, in certain cases, exacerbated many of the ethical issues associated with the use of earlier computing technologies. But has it introduced any new ethical issues? To answer such a question, perhaps it would help to consider a particular computer ethics issue, such as personal privacy and computers, vis-a-vis the Internet.

Helen Nissenbaum (1998) has recently shown how certain intrusions into the activities of online users are not currently protected by privacy norms because information available online is often treated as information in " public space" or what she describes as a sphere " other than the intimate. " She also notes that few normative theories sufficiently attend to the public aspect of privacy and that philosophical work on privacy suffers a " theoretical blind spot" when it comes to the question of protecting privacy in public.

Agreeing with Nissenbaum that activities on the Internet involving the monitoring and recording of certain kinds of personal information can cause us to reconsider our assumptions regarding the private vs. public character of personal information currently available online, Tavani (1999a) argues that Moor's " control/restricted access theory" of privacy (see Moor, 1997)

can be extended to resolve issues involving the protection of personal privacy in the " public space" of the Internet.

Despite the challenges that the Internet has posed with respect to protecting certain kinds of personal information, however, there is no compelling evidence that any genuinely new privacy issues have been introduced by that medium or that we need a new category of " Internet privacy," as some have suggested. Analogously, there does not appear to be a convincing argument for the claim that a separate field of " Internet ethics" is needed, either. How will globalization and the Internet affect the future of computer ethics?

Johnson (1999) has recently speculated that the field of computers ethics, at least as we currently understand it, " may and, perhaps should, disappear in the future. " She suggests that what we now view as issues in computer ethics might well become integrated into the issues of " ordinary ethics. " Johnson is very careful to point out, however, that the issues themselves will not disappear; rather, they will " not be posed or framed as issues of computer ethics. "