Traditionally, librarians were the steward and guardian of information. Today, the role is changing and librarians must also be the steward and guardian of the ethical use of information technology. This article looks at the ethical challenges of information technology, considers principles to guide students, and discusses the ways that librarians might respond.

As the 21st century approaches and offers increasingly sophisticated information technology, librarians are attempting to help students use electronic resources in a responsible, critical, and ethical manner. This article will discuss Kant’s categorical imperative, will present the need for principles to guide decision making, and will give some practical suggestions for their implementation. Also, this article is limited to information technology in libraries, and, in particular, to electronic indexes and the Internet.

THE CHALLENGE

Plagiarism and the overuse of secondary sources are misuses of print copy. Cyberspace, however, is even more problematic because of the ease of moving texts around, of separating pieces from the whole, and of performing unethical actions faster. Further, the autonomous and depersonalized electronic world contributes to plagiarism and to the lack of accountability on the part of the student and on the part of the contributor of the text. It is tempting to think of questionable behavior in terms of victimless crimes lacking an ethical dimension. Neil Postman, a critic of technology, writes, "...information appears indiscriminately, directed at no one in particular, in enormous volume and at high speeds, and disconnected from theory, meaning, or purpose." ¹

Ernest Kallman summarizes the special challenge posed by ethical problems involving computers:

- The speed of communication alters relationships among people because it does not give time to reflect on the possibility or implications of unethical use.
- Information in electronic form is more fragile than when it is on paper because it can be more easily changed and it is more vulnerable to unauthorized access.
- The questions of intellectual property rights, plagiarism, piracy, and privacy become active issues.
- Efforts to protect information integrity, confidentiality, and availability often conflict with the desire for the benefits of information sharing.
- Means of authorization and authentication are lacking which exposes technology to unethical practice.²

Further, the community environment of the electronic world differs significantly from the community environment of the world of everyday real life. Community appears to refer to people with some commonality of purpose or interest, but, in practical terms, community refers to physical proximity. On the Internet, each person has an individual and equal voice, but community is not actually fostered since one can communicate without considering the other to be part of one's physical community where face to face communication is possible. The anonymity and distancing of time and space increase the difficulty of taking account of the other. Rather than community building, the Internet perpetuates a culture of separation.³

Intellectual property, too, has a unique place in the electronic environment. It is not the physical property of a physical environment, but it is property nevertheless. David Johnson posits that the simultaneous bigness and smallness of intellectual artifacts in cyberspace cause serious problems. For example, are e-mail messages considered a work in the same way as great quantities of small bits for some types of multimedia works?⁴

Some of the ethical dilemmas created by technology are entirely new while other dilemmas are new versions of traditional
values; for example, honesty, responsibility, confidentiality, trust, accountability, and fairness. If ethical standards are important, and this article assumes they are, how do students know what constitutes ethical behavior? How do they recognize an ethical dilemma, and how do they know to do the right thing? Librarians might even ask if traditional standards of behavior are applicable in the technological world, or if new definitions are needed for the concepts of privacy and intellectual property.

Since there are laws to govern much of behavior one might question why bother with ethics. But what is legal is not by its nature necessarily ethical, and there are moral principles of justice and fairness not covered by laws. For example, copyright protects against illegal copying of an author’s expression of an idea or concept but not the copying of the idea or concept itself. It is frequently difficult to distinguish between a concept and its expression; hence, the considerable ambiguity even in the law.

College and university campuses have policies on copyright and plagiarism and the consequences of violations. Many disciplines and professional associations also have codes of ethics. However, if current research on contemporary college students, Generation X or Thirteeners, is generally accurate, these students do not necessarily follow laws or rules unless they see direct implication and meaning in their own life. Further, this generation, like all preceding generations of students at least since the 1960s, does not value authority. Power relationships in law and enforcement may not work well, but perhaps teaching students ethical principles will give them internal rather than external control over their actions and the concrete and practical understanding of the law that they appear to need.

**The Response**

Ethical dilemmas are, by their nature, complex and difficult to solve. To set the praxis in a philosophical context this article will look at Immanuel Kant’s categorical imperative: never to treat another human being merely as a means but always as an end.

Kant claims, in his categorical imperative, that this is the one principle for the whole field of morals including philosophy of law, the moral requirements of one’s personal integrity, and duty to others in one’s association with them. Imperatives, according to Kant, are “oughts.” An imperative says that a particular action would be good to do, but says it to a will that does not do something just because it has been presented as something good to do. A categorical imperative represents an action as objectively necessary in itself without reference to another end. It is a practical act of the will included in his categorical imperative the principle of consistency (what if everyone acted this way?) and the principle of respect (are people treated as ends rather than as means?). The principle of consistency asks people to be fair in all of their actions. It means treating others fairly but also refusing to do something that would harm others. The principle of respect suggests that people be treated with dignity, as ends in themselves.

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I have selected Kant’s ethics because his principle of respect for others transcends gender and ethnic differences, a value in the postmodern world. His ethics honor people for who they are and chide exploitation. Kant asks what we can ask our students and each other: what kind of world would this be if everyone did as I do? The Golden Rule, for example, is consistent with Kant’s ethics. The intrinsic character of an act, its motivation, is what matters, less so its consequences. While students may not be respectful of laws, policies, and codes unless they understand the purpose of them, students may be more understanding of principles they can apply to themselves and to ethical situations.

Making ethical decisions involves rational decision making. Deborah Johnson argues that philosophical analysis proceeds on the premise that the reasons for ethical beliefs must be examined. In ethical analysis the reasons are first articulated and then critically evaluated.

There is ambiguity about ethics, in large part, because there is a weighing and balancing between competing interests; for example, where do the rights of the owner of intellectual property end and where do the rights of a researcher begin? Any librarian advising faculty about copyright law has experienced this first-hand. Richard Spinello raises the question of how we can distinguish between public information and private information shared across a network. Ethics is not an exact science, but ethical inquiry does provide a basis for choosing proper actions based on rational principles and sound, carefully reasoned arguments.

**The Principles**

Ethical behavior arises out of the values of a community, and the academic community fosters engagement in the intellectual enterprise which is based on honesty and scholarship. This community of learners and thinkers values the thoughts and ideas of others and values independent thinking, not letting others do their thinking for them. To help guide students as they recognize and resolve ethical issues arising from their use of information technology as that use relates to their research, Kant’s categorical imperative can be used as a basis for four principles:

- Ownership;
- Right to privacy;
- Social responsibility; and
- Self-respect.

The first two principles relate to ownership of property and the second two to honesty and truthfulness.

**The Principle of Respect for Ownership**

The debate continues over the issue of information as a commodity and information as a right. Those who argue that information is a commodity do so on the basis of everyone profiting from his or her intellectual effort and the market determining how much others should pay for access. This rationale is used by information networks and services which require payment for their use. Those who argue that information is a right, do so on the utilitarian basis that information should be made available freely and equally to anyone who needs it, and in an unlimited fashion. There is a widespread attitude that electronic information is in the public domain and should not be protected as private property.

Supporting this view, Sandra Day O’Connor writes in her opinion on the Feist v. The Rural Telephone Services case,
The Principle of Respect for the Right to Privacy

Related to the principle of ownership is the right to privacy. One generally thinks of the right to privacy as personal history, but the right to privacy intersects with library use as the individual decides who has the right or freedom to share in his or her activities or deliberations. Gould argues that privacy and freedom are linked because no one can coerce another to share what she or he does not or is not ready to share.24

Personal research as scholars communicate with one another through networks is open to fraud, plagiarism, and tampering. Scholars are understandably chary of putting forth their ideas on the Web until their work can be protected. The principle Gould puts forward is free and informed consent: the researcher must seek consent of the author and the author has the right to control his or her own intellectual property.25

The Principle of Respect for Social Responsibility

Social responsibility and the regard for consequences of our actions are diminished in a technological world where there appears to be no human agent involved. How can an inanimate object be violated? Technology is seductive in the way that it undermines ethical behavior which is usually between persons, not between a person and an inanimate object. While the words on a screen are put there by a human agent, the words exist in cyberspace, not in a concrete form to be held in one’s hands.

Placing this principle in the context of community may guide students in giving face to an otherwise faceless world. Clifford Stoll argues, in Silicon Snake Oil: Second Thoughts on the Information Highway, that networks are cooperative communities and that the Internet is a neighborhood. Further, he writes about computers, “They isolate us from one another and cheapen the meaning of actual experience.”26 Although the community environment of the Internet is quite different from community in the physical world, as discussed above, the metaphor of a community of real people is an important one. The Internet community has real people who create and own real intellectual property. Kant’s categorical imperative applies provided students understand both the dissimilarities and the similarities of the two communities.

The Principle of Respect for Self

Most people resent being used as someone else’s means and resonate with Kant’s view of ethical treatment. Hence, the consequences of students using the ideas of others as their own or tampering with the ideas of others, violates their place in the community of learners and thinkers.

The principle of self respect also addresses the students’ misplaced trust and satisfaction with whatever resources are readily available without regard for completeness, quality, or accuracy. Many students do not realize that first-rate journals have a board of referees who determine what will be published. How then will it matter to students if librarians say no one is controlling the information they find on the Internet. Some will settle for whatever is available whether it is wrong, incomplete, or misleading which diminishes their self respect because they are actually settling for mediocrity. Gary Marchionini argues that even with resources in hand, it still takes time for students to perceive, process, and comprehend, and he asks if they have compromised their ability to be reflective thinkers and to synthesize.27

PRACTICAL SUGGESTIONS

This article presumes that librarians are stakeholders in the large issue of ethics and information technology. In a study on a similar issue done at Tufts University by surveying students and faculty about who should have the major responsibility for teaching students to evaluate published sources and avoid using falsified or fraudulent work, 52.2% of the faculty thought faculty should have that responsibility; 41.7% thought the responsibility should be shared with librarians; and 7% thought neither should have the responsibility. A total of 68.4% of the students responded that both faculty and librarians should have the responsibility; 27.5% thought only faculty should have the responsibility, and 4.1% thought it is the responsibility of the individual, not either faculty or librarians.28 There appears to be an expectation that librarians have a responsibility to be partners with the teaching faculty in this regard.

Unless librarians are teaching a for-credit course and have time to incorpo-
Gate these or other ethical principles in their curriculum, librarians usually are limited to a one time instructional session with students. Yet, in many ways, librarians observe first-hand unethical behavior in students. How can they address this dilemma? One might begin with a video such as the 12 minute A Shared Set of Values: Copyright and Intellectual Property in the Academic Community, which addresses both legal and ethical values and can be used as an introduction to stimulate a lively discussion.29

Further, the following questions may give guidance to students in recognizing an ethical dilemma:30

Is it illegal? (Then it probably is unethical.)

Does it violate ethics codes?

Does it bother your conscience or violate your personal values and principles or those of others around you?

Does it look as though someone is likely to be harmed? (The someone could be you.)

Would this practice continue if it were publicized, for example in the student newspaper?

Finally, teaching by the use of analogy of case studies is a proven teaching technique. Following are three case studies to serve as examples which represent the common experiences of librarians and faculty. Many students learn from small group discussions and hands-on experiences, and these case studies can be analyzed in groups. The previously listed questions to guide students in recognizing an ethical dilemma apply to these and other cases. The following questions can also be asked about the three cases:

· What is the ethical issue?
· What principle(s) might apply?

Case One

A marketing professor has assigned a paper to his international marketing class. The students are to pick randomly from a hat the name of a country and then pick randomly from another hat the name of a product. The project is to research how the selected product can be marketed in the selected country. The professor brings the class to the library for an instructional session, and the librarian shows a number of print sources and CD-ROMs which will be very helpful to the students both as sources of information as well as references to relevant books and articles. The librarian also shows the students how they can access country and product information through the Web. The professor encourages students to use the Web, and the librarian explains the caveats of using commercial Websites. The projects are completed and turned in. The professor notices something very odd about one of the papers and asks several colleagues about it. Words are occasionally underlined, but for no apparent reason; that is, they are not foreign expressions, are not words to be emphasized, and are not the title of anything. Colleagues are not sure either. The professor comes to the librarian and she identifies the underlined words as links from a Website. Apparently the student downloaded a site and incorporated it into the paper without citing the source, nor did the student bother to proofread either.

What does the professor or librarian say, not just to confront this particular act of plagiarism, but to help change the student’s unethical behavior?

“While plagiarism has been a perennial problem in the print environment, it and other misuses of information have been exacerbated by the unique properties of the electronic environment.”

Case Two

A history professor uses the Internet extensively for all of her classes. She posts students’ research papers on the Web for classmates to read and critique. Students then are expected to rewrite their papers incorporating comments from the class. One of the professor’s classes is World History, and this year the class is comprised of a very lively, fun-loving group of second-year students who are stereotypically sophomoric in their behavior. One of the students thinks it would be humorous to post her friend’s paper on the Web, but to give authorship to another person. Shortly after the posting, the history professor happens to come across the paper. The professor then calls the student into her office and shows her the article submitted. Her response is this: “Why are you doing this to me?” The professor then asks the student about the origin of the student’s paper: an article in Nexis, he finds the origin of the student’s source, nor did the student bother to proofread either.

How does a professor or a librarian address both legal and ethical dilemmas such as the 12 minute A Shared Set of Values: Copyright and Intellectual Property in the Academic Community, which the student has copied in its entirety. The professor then calls the student into his office and shows her the article from Glamour and the paper she submitted. Her response is this: “Is this your own work?” She responds, “Of course, it is, why would you ask me such a question?” He replies, “You’ve never turned in any written compositions that bear any remote resemblance to this one.” She is indignant and says, “It is my own work.” The professor then asks the student into the library and asks a librarian for assistance in finding the source of this paper. Inputting key words in Lexis/Nexis, he finds the origin of the student’s paper: an article in Glamour magazine which the student has copied in its entirety. The professor then calls the student into his office and shows her the article from Glamour and the paper she submitted. Her response is this: “Why are you doing this to me?”

How does a professor or a librarian help students recognize ethical issues and respond with critical analysis and responsible action?

Conclusion

While plagiarism has been a perennial problem in the print environment, it and other misuses of information have been exacerbated by the unique properties of the electronic environment. Students seem not to take seriously the law nor campus policies about plagiarism and other misuses of information technology, yet librarians and faculty continue to face the challenge of motivating students to become part of the academic community where honesty and scholarship are virtues. This article suggests Kant’s categorical imperative, never to use another as a means but always as an end, may be effective in helping students see the use of information as an issue of respect for self and others. Placing principles such as ownership, right to privacy, social responsibility, and self-respect within the context of a philosophy of eth-
ics may be a more effective and meaningful way of changing students’ behavior.

NOTES AND REFERENCES
8. Ibid., p. 153.
9. The ALA Code of Ethics, for example, states that “We recognize and respect intellectual property rights.” The ALA Code of Ethics is available at gopher://ala1.ala.org:70/00/ala-goph/ethics.txt.
13. Forrester, Computer Ethics, p. 16.
15. Spinello, Ethical Aspects, p. 9.
16. Ibid., p. 15.
21. Ibid.
25. Ibid.
30. These questions are posed by my colleague, David W. Gill, Carl I. Lindberg Professor of Applied Ethics, North Park University, in his Ethics Workshop sponsored by the Faculty Development Committee.