

Computer and Internet Ethics

Part 2

Bonnie A. Osif

Spending an evening on the World Wide Web is much like sitting down to a dinner of Cheetos: two hours later your fingers are yellow and you're no longer hungry, but you haven't been nourished.

—Clifford Stoll

It has become appallingly obvious that our technology has exceeded our humanity.

—Albert Einstein

Imagine yourself in a world where your entire life is defined by computerized machines. You request food, and it is delivered to you. At night your bed rises from the floor, and in two steps you are in it. At your command, lights are adjusted for reading in bed. When you fall asleep and your fingers slip off the control pad, the reader marks your place and retracts into the wall and the lights turn off. You have minimal physical contact. Perhaps not even once a year, you must be in the same space as another human. But the machine, yes, the machine is the center of your world. You may cut communication with another person with a touch of a switch whenever he or she annoys you, but you only show respect, nay, reverence, for your computer.

Does this sound surreal, or like something from a not-too-distant future? Ideal or frightening or somewhere in between? Actually, this is a summary of the short story "The Machine Stops" by E. M. Forster.¹ This intricate story was written in 1928 and has many levels of detail and nuance. While Forster made a few mistakes (airplanes are much faster than he envisioned, and we still haven't succeeded with the food preparation he envisioned), his guesses about computers and telecommunications were excellent. In fact, he foresaw computers being involved in almost every aspect of our lives.

Then the machine stops. We may have as much difficulty imagining the machine stopping as Vashti did in the story. It is that much a part of our lives. How should we go about intentionally integrating this technology into our civilization? How might we need to change our civilization to accommodate the technology?

Integral to this integration is a clear understanding of the technology itself and its role in society. And part of that role is ethical use of the technology and respect for those who use it. There is a real disconnect when you only have a virtual connection with someone. It's easier to behave inappropriately over the Internet than when face to face with someone; thus, maintaining ethical standards becomes both more important and more difficult. In fact, an entire study has focused on information ethics. This column will continue our survey of resources on ethics and our networked world.

You mustn't say anything against the Machine.

Growing Up Digital chronicles the "Net Gen," those born after 1977, who grew up with digital media. Tapscott writes, "Today's kids are so bathed in bits that they think it's all part of the natural landscape. To them the digital technology is no more intimidating than a VCR or toaster."² He notes that for the first time children are more literate about innovations than are the parents and that there are important implications for this reversal. The book covers leisure, education, commerce, and social and political values, as well as the digital divide. Tapscott includes a number of charts with demographics; however, they are somewhat dated. He discusses the four themes of the new generation gap: "older generations are uneasy with the new technology—which kids are embracing," "older generations tend to be uneasy about new media—which are coming into the heart of youth culture," "old media are uneasy about new media," and "the digital revolution, unlike previous ones, is not controlled only by adults."³ He uses diaries, chat logs, technology quotes, and personal experiences to illustrate his points.

Tapscott also discusses the digital divide in a chapter by the same name in which he covers both the haves and

Bonnie A. Osif (bao2@psu.edu) is Assistant Engineering Librarian at Pennsylvania State University in University Park.

have-nots, and the knows and know-nots. He makes some intriguing statements, such as “poverty begets information poverty begets poverty” and “opposition to efforts for universality, regardless of the intentions or lofty ideologies of the perpetrators, result in actions which uphold and amplify social differences.”⁴ Since the existence and importance of a digital divide is frequently mentioned, it is interesting to read his view of the topic.

If you want insight into the mindset, the realities, of those who grew up with computers, the Internet and more, read this book. It might be an eye-opener, or it might be a reiteration of what you know, but it is definitely interesting. The book may not directly affect the way we do business, but it will have some effect on the way we view our patrons.

Considering the changes in U.S. society since the terrorist attacks of September 11, 2001, *Cyber Rights* by Mike Godwin might seem a little dated. However, the issues are important, and the book provides a good basis for understanding the topic.⁵ It is an inherently positive book. Godwin begins with the statement, “Give people a modem and a computer and access to the Net and it’s far more likely that they’ll do good, than otherwise. This is because freedom of speech is itself a good—the framers of the Constitution were right to give it special protection, because societies in which people can speak freely are better off than societies in which they can’t.”⁶

Godwin writes in the first person, and the text is very easy reading. He illustrates his points with a number of case studies. The book helps to place some of the more recent materials on cyber rights and freedom of speech in a historic context. Interesting, if not necessary reading.

Cyberethics provides an excellent combination of information and fun.⁷ Each chapter begins with a case study. Text from speeches and articles support the theme

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of each chapter. Useful URLs are placed alongside the appropriate text so the readers can check for additional information as they are reading. Questions in the text require critical thinking, not rote answers. The book clearly is intended to be an undergraduate text, and the chapters (intellectual property, privacy, cyber speech, e-commerce, e-learning, democracy and the marketplace) present nothing that isn’t covered in other books. However, this one mirrors the youthful exuberance and the serendipity of the Internet. It is fun, fast, insightful reading. Read it. It will make you think and smile.

Add to your should-read list *Computer Ethics and Professional Responsibility*.⁸ This book is a wealth of infor-

mation and ideas to consider. It is divided into four parts: What Is Computer Ethics?, Professional Responsibilities, Codes of Ethics, and Sample Topics in Computer Ethics. Each part consists of an introduction, a collection of essays, a case study, questions, and additional resources. While this book covers many of the topics included in other titles, the format, quality of writing, and case studies make it stand out. While it is not library specific, the social and ethical issues raised are worth reviewing. Visit the authors’ Web site at www.southernct.edu/organizations/rccs/textbook/history.html for additional information.

By her side, on the little reading desk, was a survival from the ages of litter—one book.

While long at almost eight hundred pages, Edgar’s *Morality and Machines* is worth reading cover to cover.⁹ The first three chapters provide a decent overview of ethics in general, before moving on to major topics of ethical concern—piracy, computer crime, viruses and other attacks, privacy, reliability of records and forms, laws, liabilities and professional ethics, and the government and the virtual world. Each chapter ends with references and essay questions. Interesting quotes and an appropriate cartoon begin each chapter. The text is very informative, and the cultural icons and anecdotes make reading fun. This is a title that could be used for lunch-time discussion groups. The essay questions already provide a guide for the sessions. A must-read.

Based on a 1995–2000 telephone survey, *Social Consequences of Internet Use* looks at “access to Internet technology, involvement with groups and communities through the Internet, and use of the Internet for social interaction and expression.”¹⁰ The authors describe two

competing views of the Internet: (1) a utopian view that uses terms such as liberating, communities, exponential increase in human and social capital, egalitarian, and multimedia information society and (2) a dystopian view that uses terms such as bleak, dismal, susceptible to misinformation, decep-

tion and hucksters, lonely, and outcast. They expand on this in later chapters, concluding that both extreme views are wrong. “The result is an intricate tapestry of individuals engaging in what they already do in other arenas, for good or bad, while expanding possibilities for new kinds of thought, interactions and action.”¹¹

The book reports on what the authors have named the Syntopia Project, which takes “quantitative survey data to provide a rigorous base on which to build insights and understand the broad flow of social change.”¹² Topics covered in detail include access issues; the digital divide; civic, political, and community involvement; and social interaction and expression. The chapters give detailed

demographic information, cite main sources, and provide objective insight into topics that are often discussed based on anecdotal information or “gut instinct.” The results, summarized in the last chapter, include the observation that the digital divide, though real, is shrinking and is largely based on income and education and that the Internet does not lessen community participation or social interaction. The section on the Internet and politics is interesting, especially in light of the Internet’s role in the last presidential election. Because this book was written before the election, this issue probably needs reevaluation. Overall, this is a fascinating, well-substantiated look at the implications of the medium that has become engrained in our lives. While not necessary reading, it is highly recommended.

Another choice, which provides a different perspective, is *Prefiguring Cyberspace*, a collection of twenty-eight essays that consider technological change and human interaction.¹³ The editor states, “This book presents a range of response to a common theme, that what we call cyberspace has been a long time coming. *Prefiguring Cyberspace* is not concerned with identifying how we ‘became posthuman,’ but rather demonstrating how becoming informatic is an ongoing process of the continual past tense.”¹⁴ This challenging idea is presented in essays that refer to classics from Thomas More, Descartes, Plato, and Butler, as well as modern works by authors such as Philip K. Dick, Ray Bradbury, and William Gibson. A truly challenging and unique work, it will expand the thinking of the classicist and the cyberpunk, the librarian and the engineer. For an intellectual challenge, it is recommended for those with the time and the interest.

Herman Tavani is a major name in information ethics, and his 2004 text is an enthusiastic addition to the reading list.¹⁵ Terms are defined clearly and discussed with clear scenarios and case-study illustrations. Tables and charts are used frequently to help explain his text. The entire book is recommended; however, if time is an issue, read “Introduction to Cyberethics,” “Security in Cyberspace,” “Intellectual Property Disputes in Cyberspace,” and “Social Issues I and II.” Check the glossary and the codes of ethics included in the appendices. An excellent resource.

The room, though it contained nothing, was in touch with all that she cared for in the world.

Stating that “computers and communication technology are in the forefront of changes which are transforming everyday life, yet we are critically short of ethical and intellectual resources with which to understand and con-

front these changes,” Stahl takes an interesting look at a possibly overlooked aspect of the Internet.¹⁶ He begins by reminding us that much of our understanding of the world is based on symbolism and ritual. These factors have

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become hidden, and the study of technology fragmented, increasing the difficulty of a deeper understanding of technology and its place in our lives.

The short book (185 pages) covers a number of aspects of the culture of technology: technological mysticism and its role in change; women and technology; language as a descriptor of technology; power, control, and our “Faustian bargain”; values and moral decisions; and “the place of information technology in a vision of a good society.”¹⁷

Heavy reading, this well-documented interdisciplinary look at technology is not one for practical use in our daily work. However, with the encroachment of technology throughout our lives, it is important to see it within a broader and deeper framework rather than simply as a keyboard and a box of plastic and glass. The philosophy of technology is an evolving subject that deserves our study. This is one place to start.

In a theme that is remotely related to Max Weber’s *The Protestant Work Ethic and the Spirit of Capitalism*, Pekka Himanen’s *The Hacker Ethic and the Spirit of the Information Age* makes the point that hacker ethics address timely and important issues (money and work) and affect our social environment today much in the same way that Weber’s work affected society.¹⁸ Clear distinction is made between hackers (good) and crackers (destructive hackers). Using sociology, history, and some theology, Himanen provides insight into the hacker and the role of technology in our lives, as well as the way things might be changing. Key names and organizations in the recent history of computers are found throughout the book and provide contextual landmarks for the discussion. A prologue by Linux’s Linus Torvalds and an epilogue by sociologist Manuel Castells complete this little gem.

Ethics and Electronic Information, a festschrift in honor of Stephen Almagno, a University of Pittsburgh professor of library science, provides another window on the world of ethics.¹⁹ The second part of the book includes eight essays on library ethics and is well worth reading. The first part is a collection of essays about Almagno by those who have worked and studied with him. The third part discusses information ethics outside of library-specific issues but still of interest. Definitely worth a look.

Gurpreet Dhillon has edited a book that looks at a wide range of issues closely and not so closely linked to information technology.²⁰ These range from software piracy, privacy, and data security to outsourcing e-commerce and repetitive strain injuries. Many managers are only going to be interested in a few chapters, as libraries aren't involved in e-commerce or outsourcing. But issues such as security and hackers are daily issues.

Several of the chapters are worth a special note. "The Societal Impact of the World Wide Web—Key Challenges for the 21st Century" reviews the demographic and sociological aspects of technology. "Internet Privacy: Interpreting the Key Issues" investigates specific privacy concerns of a study group that provide a basis for organizations to create or revise privacy policies. "Aggression on the Networks: An Australian Viewpoint" is one of the most interesting chapters. It is a beginning study of cyber-vigilantism, or "hacking the hackers," those who attack systems.²¹ While a knee-jerk reaction may be to get back at these hackers, it is interesting to read the results of the study that oppose that type of reaction. "On the Role of Human Morality in Information System Security" provides a look at human choices within the context of using computer security procedures. If your system has ever been compromised due to lack of adherence to basic security protocols, this chapter is must reading. Last, the editor provides a summary of the themes of the book in the concluding chapter, which states, "each chapter has identified a category of social responsibility concerns which if ignored are going to result in some ethical strain."²² Worth a look for all managers.

The 2004 *Yearbook of the Council on Technology Teacher Education* tackled the subject of ethics for citizens and "was developed based on the premise that all persons should be technologically literate and equipped to deal with ethical issues that are part of problem solving and design decision."²³ *Ethics for Citizenship in a Technological World* looks at this topic of technological literacy. The chapters do not directly discuss the library or the work we do. Instead, they refer to a broader area of how and what is being taught or presented to our patrons before they enter our buildings. While not necessary reading, "Ethics in a Culturally Diverse Technological World" and "Ethics and the Assessment of Technological Impacts on Society" are two chapters that are especially recommended for their focus and insight.

Thanks to the advance of science, the earth was exactly alike all over.

The journal *Ethics and Information Technology* has articles that are worth reading in every issue. Most of the articles are very complex and assume a decent background in the study of ethics. However, they are worth the effort. A few are highlighted here, and I recommend periodically scanning the table of contents.

Herman Tavani is a frequent writer for the journal.²⁴ He has a chilling but important article on cyber stalking, as well as one on the academic study of computer ethics. Himma discusses the reasons cyber ethics is a unique subdiscipline of the field of ethics, while Floridi and Sanders continues this theme with a review of five points of debate on the need for such a subdiscipline.²⁵ Marturano continues the defense of the need for a separate field of discipline.²⁶ Each of these articles and the dozens more in the publication reinforce the breadth, depth, and intricacies of world of ethics and its intersection with the new technologies.

Since libraries often are involved with issues concerning controversial and fringe opinions and differing community norms, Williamson and Pierson's article in the *Journal of Mass Media and Ethics* on cyber hate and its implications for ethics is definitely worth a look, as the examples may be eye-openers and the issue is timely and important.²⁷

Worth a quick look is Don Gotterbarn's overview of Margaret Meade's three stages of culture as they pertain to information technology. These stages are the age of innocence, coming of age, and family or tribal values. An especially interesting point is that when progress is fast, "the authorities have to prepare children for things those authorities have never experienced."²⁸ How true nowadays, with the young more comfortable with the technology than many of the parents or teachers. The cycles of the stages and how rapidly things are moving in our technological world make this an interesting and worthwhile article.

Allan Jones presents a way to teach information ethics in "Technology: Illegal, Immoral, or Fattening?"²⁹ It will only take a few minutes to look at his article, and you may get some ideas of how to approach the topic. On a related note, Hilton reports on a company survey about computers and ethical behavior.³⁰ While the setting is different, the idea of surveying what is proper computer use, appropriate punishments, and so forth might be an interesting and useful exercise. Worth a look. One last resource is the Computer Ethics Institute Web site of the Brookings Institute, which provides links and information on how to obtain papers.³¹

What matters so long as the Machine goes on?

We began our look with the technologically rich one-room world of Vashti, a character created in 1928, who lived in a future more advanced than we have now. All time is spent in intellectual endeavors, yet people do not consider the ethics of becoming "a swaddled lump of flesh" or of knowing nothing about the technology that keeps them alive.³² Only the self and the Machine matter.

The writers mentioned in this column are not passively allowing our technology to evolve without thought. They

have presented the issues, and they challenge us to take our place in considering and controlling the technology and its role in our society. The task is complex, but science fiction has presented a number of scenarios that should encourage us that the task is worth the effort. The challenge is to be sure that our technology never moves ahead of our humanity, for that would be a situation ethically indefensible.

Author's note: Headers taken from "The Machine Stops."

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