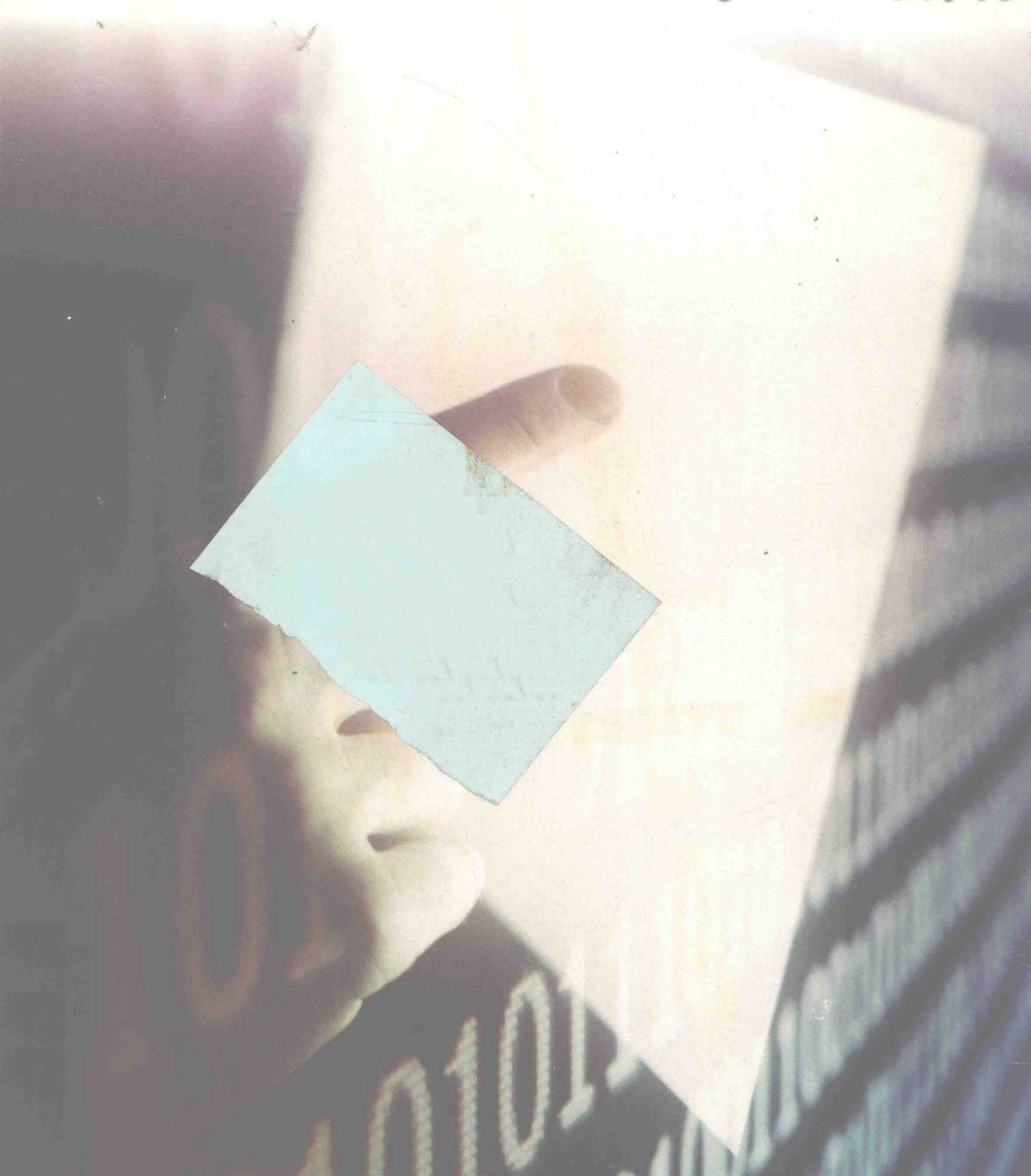


**A·N·N·U·A·L E·D·I·T·I·O·N·S**

**Computers in Society**

**02/03**



## **1. Introduction**

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## **2. The Economy**

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## **3. Work and the Workplace**

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## **4. Computers, People, and Social Participation**

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Members of the Advisory Board are instrumental in the final selection of articles for each edition of ANNUAL EDITIONS. Their review of articles for content, level, currentness, and appropriateness provides critical direction to the editor and staff. We think that you will find their careful consideration well reflected in this volume.

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In publishing ANNUAL EDITIONS we recognize the enormous role played by the magazines, newspapers, and journals of the public press in providing current, first-rate educational information in a broad spectrum of interest areas. Many of these articles are appropriate for students, researchers, and professionals seeking accurate, current material to help bridge the gap between principles and theories and the real world. These articles, however, become more useful for study when those of lasting value are carefully collected, organized, indexed, and reproduced in a low-cost format, which provides easy and permanent access when the material is needed. That is the role played by ANNUAL EDITIONS.

We can only guess at how the ever-increasing power, diversity, and pervasiveness of computers—especially *networked* computers—will affect us as individuals or influence society at large. However, it is hoped that *Annual Editions: Computers in Society 02/03* will complement your technical understanding of emerging technologies by acquainting you with some of the philosophical, economic, political, and social dimensions of the information society.

The contributors to the ninth edition of *Annual Editions: Computers in Society* represent diverse backgrounds and their collective writings highlight a wide spectrum of issues and views about how the information age will or ought to unfold. For the most part, their writing styles are very understandable and devoid of the kind of unintelligible technical jargon that can be a barrier to becoming informed about technological issues.

Because of its social focus, *Annual Editions: Computers in Society* is organized to reflect the major dimensions of society rather than various aspects of computing. The main themes of the book are the economy, social interaction, social institutions, and conflict. Many of these themes are also examined in an international context. The final section looks at some of the philosophical challenges posed by emerging technologies.

Each selection has been chosen for its informational value, but to say that an article is "informative" does not necessarily imply that the information is correct or valid. In fact, some readers may find that they strongly disagree with, or are even offended by, an author's position—I may well agree with you. On the other hand, some readers may feel simply inspired by arguments that make others irate. *Annual Editions: Computers in Society* is meant to generate rather than answer questions on how computers will affect society. Hopefully, such queries will serve to clarify issues, broaden perspectives, provoke curiosity, and stimulate informed discussion of and participation in the computer age.

Readers can have input into the next edition of *Annual Editions: Computers in Society* by completing and returning the postage-paid *article rating form* in the back of the book. Your suggestions and comments are very important to us.



Kathryn Schellenberg  
Editor

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1. **From Movable Type to Data Deluge**, John Gehl and Suzanne Douglas, *The World & I*, January 1999.

The authors discuss the **societal transformation** that began with the invention of the printing press in the fifteenth century and speculate on some potential consequences of the **"digital revolution."**

2. **The Internet & Sexual Personae**, Camille Paglia, *Forbes ASAP*, December 2, 1996.

This article looks at the implications of the **computer revolution** as an expression of democracy that verges on anarchy and concludes that everyone should have equal access to the Internet and the infinite information available.

3. **The Internet Produces a Global Village of Village Idiots**, Richard John Neuhaus, *Forbes ASAP*, December 2, 1996.

This author expresses **skepticism about the value of the digital revolution**. He puts the information explosion, fomented by the computer, into perspective by examining the value of instant information on society.

## Overview

4. **Making the Chips That Run the World**, Jake Page, *Smithsonian*, January 2000.

It's "a piece of cake: Put 9½ million transistors in a space the size of your thumbnail and allow zero contamination." Jake Page explains how such **high-tech manufacturing** is carried out at Intel's fabrication plant in New Mexico.

5. **Beyond the Bar Code**, Charlie Schmidt, *Technology Review*, March 2001.

Charlie Schmidt explains how **radio frequency identification tags** may someday be able to track the location of "every single manufactured item" in real time. This will allow manufacturers to stay in sync with consumer demand, collect a wealth of data about individual consumer habits, and pose new challenges to **privacy**.

6. **To the Rescue!** Daniel Eisenberg, *Time*, April 23, 2001.

"No other major business relies so heavily—and so inefficiently—on old-fashioned pen and paper," Daniel Eisenberg says, referring to the health-care industry. He explains that the growing use of electronic prescription writing, comprehensive digital records, and other innovations are changing the practice and management of **health care** and raising new **privacy** concerns.

7. **The Productivity Paradox**, Jenny C. McCune, *Management Review*, March 1998.

Does increased technology boost **corporate productivity**? Earlier studies failed to find a link between computer investment and corporate performance. Recent research raises questions about such findings. Jenny McCune explains why different studies lead to different results and concludes that "technology is a mixed blessing for businesses."



## Introduction

The lead article presents an overview of the past and future "information revolutions." The following pair of essays offer widely differing views of the computer-networked society.



## The Economy

Seven articles examine issues related to manufacturing, distribution, services, the debate surrounding the so-called productivity paradox, and e-commerce.



## Work and the Workplace

Five articles look at the growing inequality in the "new economy," corporate training, the hiring and management of virtual workers, technological stress, and workplace privacy.

8. **The Myth of "Internet Time,"** Andrew Odlyzko, *Technology Review*, April 2001. **34**  
Product development cycles are shrinking, but consumers are not embracing novel technologies more rapidly than in the past. Failure to realize this fact has led to serious outcomes for many firms and investors. Andrew Odlyzko argues that **dot-coms** are transforming the economy but the process will not unfold in **Internet time**.
9. **E-Commerce and the Information Market,** Varun Grover and James T. C. Teng, *Communications of the ACM*, April 2001. **36**  
The need to match buyers and sellers in the "virtual marketplace" has given rise to **infomediaries**—a new form of **e-commerce** company. The authors describe the various types of infomediaries and their growing role in orchestrating online transactions.
10. **i2i Trust in E-Commerce,** Judith S. Olson and Gary M. Olson, *Communications of the ACM*, December 2000. **42**  
Many **e-commerce** activities depend on perceptions of **trust** and trustworthiness between individuals engaged in online interaction. In this article, Judith and Gary Olson discuss forms of online **i2i** relations and social, technological, and personal factors that build or inhibit trust.

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11. **The Great Prosperity Divide,** Kevin Dobbs, *Training*, February 2000. **48**  
"Two Americas" have emerged in the **new economy**. Investment in computers drove up the demand for high-tech workers but the majority of the workforce was ill-prepared to benefit from new opportunities. Kevin Dobbs shows how new technologies lead to wider **social inequality** and asks whether publicly funded **training** can help those who are being left behind in the **new economy**.
12. **Click and Learn,** Michael A. Verespej, *Industry Week*, January 15, 2001. **53**  
"**E-learning** is changing how manufacturers transfer knowledge to employees and customers." Michael Verespej relates how Webcasts, online tutorials, and CD-ROM instruction are being used to support **corporate training**.
13. **"You're Hired, Now Go Home,"** Jeanne L. Allert, *Training & Development*, March 2001. **57**  
Because **virtual companies** lack a physical place, they have to rewrite a lot of rules or make up new ones in hiring employees. Drawing from experience, Jeanne Allert offers advice on "how to hire **virtual workers** and keep them connected."
14. **Dealing With Tech Rage,** Chris Wood, *Maclean's*, March 19, 2001. **60**  
If you ever feel like hurling your computer out the window you are not alone. Chris Wood explains how quirky software, e-mail overload, and other technology-related irritations can lead to **rage** or **techno-stress**.



15. **They're Watching You**, Sarah Boehle, *Training*, August 2000. 62

A majority of U.S. firms record and review some form of employee communications and the number is expanding rapidly. In this article, Sarah Boehle asks and answers the question, "What's behind this rush to **Orwellian oversight**?"

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16. **Broken Homepage**, Peggy J. Farber, *Harper's*, April 2001. 70

**Adoption** agencies are using the Web to attract parents for hard-to-place **children**. As Peggy Farber points out, however, the cozy images and pull-down menus of the Web belie the "unsettling inexactitudes" of the foster care system. "After all, it's far easier (and cheaper) to build a Web site than to rebuild a family."

17. **Growing Up Digital**, John Seely Brown, *Change*, March/April 2000. 72

The Web will give rise to a range of social transformations in work, education, and learning. In this article, John Seely Brown expounds on the Web's potential to promote deep **cognitive and social learning** through **communities of practice** for all ages.

18. **Failure to Connect: How Computers Affect Our Children's Minds—for Better or Worse**, Jane M. Healy, *Phi Delta Kappan*, January 2000. 82

In these excerpts from her book, Jane Healy challenges the claims that computers improve the quality of **learning** and prepare **children** for the future. She argues, rather, that "research has yet to confirm substantial benefits from most computer-related learning products" and that such products may even be detrimental to intellectual development.

19. **Trust Online**, Batya Friedman, Peter H. Kahn Jr., and Daniel C. Howe, *Communications of the ACM*, December 2000. 87

"**Trust** matters." In both economic and social situations, people may make costly mistakes if they trust "too well" or "not well enough." Here, the authors explore the nature of trust and how and where it flourishes online.

20. **Mind Over Muscles**, Victor D. Chase, *Technology Review*, March/April 2000. 93

An estimated 200,000 Americans suffer from **paralysis**. While there is still no cure, **neuroprosthetics** and **brain/computer interfaces** could offer a more normal life for some patients. As Victor Chase explains, some promising technologies may allow paralysis victims to move their limbs "just by thinking about it."

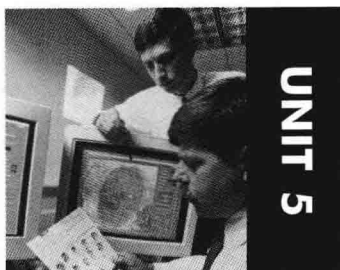
21. **Power Players**, Marjorie Whigham-Désir and Wakeen Edmonds, *Black Enterprise*, March 2001. 98

In this special report, **Black Enterprise** gives voice to 25 "**Black Digerati**" who are playing prominent roles in the technology revolution and helping to create "an environment that will enable **African Americans** to bridge the much-discussed digital divide."



## Computers, People, and Social Participation

Six selections discuss issues regarding adoption Web sites, children's education, trust in online social relationships, new technologies that help paralysis victims achieve greater independence, and African Americans at the forefront of the "technology revolution."



## Social Institutions— (Property) Law and Politics

Seven articles examine debates surrounding virtual and intellectual property law and “electronic” democracy and other political implications of the Internet.

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| <b>22. Is Virtual Trespass an Apt Analogy?</b> Maureen A. O'Rourke, <i>Communications of the ACM</i> , February 2001. The Internet is a “legal frontier” where courts are facing pressures to apply laws based on the presumed analogy between <b>virtual</b> and real <b>property</b> . Maureen O'Rourke explains why the concept of “ <b>trespass</b> ” is an attractive but questionable analogy for legally limiting access to Web sites. She proposes that courts recognize the important differences between the real and virtual worlds. | <b>106</b> |
| <b>23. The Digital Dilemma</b> , Randall Davis, <i>Communications of the ACM</i> , February 2001. <b>Intellectual property</b> laws, policies, and practices reflect a careful balancing of public good and private interests that is threatened by the changing <b>information infrastructure</b> . Focusing on publication, copyright, and licensing issues, Randall Davis identifies the origins and possible solutions to this emerging dilemma.  | <b>111</b> |
| <b>24. Software Patents Tangle the Web</b> , Seth Shulman, <i>Technology Review</i> , March/April 2000. The <b>U.S. Patent and Trademark Office</b> receives over 2,500 applications a year for “business method software” patents. In this article, Seth Shulman examines some of the premises and implications of granting <b>patent</b> (versus <b>copyright</b> ) protection for software. He also raises questions about the PTO's ability to research “prior art” due to rapid advancements in the field.                                 | <b>117</b> |
| <b>25. Reconciling Research and the Patent System</b> , Q. Todd Dickinson, <i>Issues in Science and Technology</i> , Summer 2000. The U.S. commissioner of patents and trademarks responds to critics who oppose <b>patents for software, business methods, and other innovations</b> . Q. Todd Dickinson also defends the PTO's ability to research “prior art” and explains that a “properly calibrated intellectual property system” can balance two fundamental principles: protection and dissemination of new knowledge.                  | <b>123</b> |
| <b>26. Click to Vote</b> , Aaron Weiss, <i>Networker</i> , March 2001. In the wake of the 2000 election, there is renewed interest in computerized <b>voting systems</b> . Aaron Weiss discusses two major alternatives for replacing current, “practically creaking” political machinery—Internet and <b>DRE</b> systems. He argues that <b>digital elections</b> are a sound idea but that they pose many risks and require further thought and study.  | <b>129</b> |
| <b>27. Democracy in an IT-Framed Society</b> , Åke Grönlund, <i>Communications of the ACM</i> , January 2001. The January 2001 issue of the <i>CACM</i> featured several articles on <b>electronic democracy</b> . Here, guest editor Åke Grönlund gives readers an overview of the subject and highlights various authors' contributions to understanding <b>e-democracy</b> in the areas of formal <b>politics, administration, and civil society</b> .   | <b>133</b> |
| <b>28. Should Democracy Online Be Quick, Strong, or Thin?</b> Joachim Åström, <i>Communications of the ACM</i> , January 2001. In this article, Joachim Åström outlines three models of <b>democracy</b> . Each model embodies different ideals and implies different interpretations of what an electronic manifestation of government by the people might look like.  | <b>137</b> |



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### 29. How Hackers Break In . . . and How They Are Caught, Carolyn P. Meinel, *Scientific American*, October 1998. 142

Sophisticated hackers have many weapons that they can use to gain unauthorized access to a victim's computer system. Potential targets of hackers, on the other hand, can marshal a wide array of countermeasures to deter and nab uninvited intruders. Carolyn Meinel shows us the tools and tactics of both the offensive and defensive sides of **hacking**.

New technologies are emerging for the primary purpose of changing attitudes and behaviors. In this article, the authors inform us about persuasive applications of technology and provide a framework for the **ethical scrutiny** of the methods employed in **persuasion**.

### 30. Toward an Ethics of Persuasive Technology, Daniel Berdichevsky and Erik Neunswander, *Communications of the ACM*, May 1999. 151

New technologies are emerging for the primary purpose of changing attitudes and behaviors. In this article, the authors inform us about persuasive applications of technology and provide a framework for the **ethical scrutiny** of the methods employed in **persuasion**.

### 31. Lying With Pixels, Ivan Amato, *Technology Review*, July/August 2000. 158

"Seeing is no longer believing." Ivan Amato explains how new **video-manipulation technology** makes it possible to alter video images in real time. The implications of such "pixel plasticity" are very wide-ranging. Some experts see few threats in the potential for video manipulation but others have raised concerns about "the end of authenticity."

### 32. Do You Know Who's Watching You? Chris Wood, *Maclean's*, February 19, 2001. 163

"Welcome to the age of anywhere, anytime, anybody **surveillance**." As Chris Wood warns, **spyware** is getting more affordable and available. Your boss, government, spouse, or a sexual creep could be watching you, and the law cannot keep pace with abuses.

### 33. Roundtable: Medical Privacy, Janlori Goldman, Paul Schwartz, and Paul Tang, *Issues in Science and Technology*, Summer 2000. 167

Three authorities on health privacy, informational privacy, and clinical informatics share insights on issues related to **computerized patient records**. Computerized records could lead to enhanced medical research and public health by improving the availability and quality of data. However, good quality data depends on protecting people's **privacy**.

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### 34. Lost in Translation, Stephen Budiansky, *The Atlantic Monthly*, December 1998. 175

Computers are helping to bridge the communication gap between cultures and nations that use different languages. In this article, Stephen Budiansky reports on the current state of **machine translation (MT)**—how far it has come and how far it has to go. One common problem that remains to be solved is how to "program common sense."



## Societal Values and Risks: Ethics, Privacy, and Preserving the Past

Five selections examine issues related to hacking, the use of technology for persuasion and deception, individual privacy, and threats to the preservation of digital information.



## International Perspectives and Issues

Seven articles discuss developments in machine-based language translation, privacy rights versus freedom of expression in the European Union, attitudes toward privacy in less-developed nations, technical education in India, human rights activities in politically repressive nations, and cross-national implications of commercial satellite imagery.

- 35. Is Online Democracy in the EU for Professionals Only?** Per-Olof Ågren, *Communications of the ACM*, January 2001. 179  
To protect personal **privacy**, the European Parliament has set strict limits concerning online data about individual citizens. Per-Olof Ågren argues that these restrictions curtail freedom of expression on the Internet and could reduce **democratic debate** to a purely professional activity that would reflect a very **thin democracy** model.
- 36. A Privacy Divide?** Rohan Samarajiva, *The UNESCO Courier*, March 2001. 181  
In this short essay, a former **privacy** policymaker raises questions about privacy in “digitally deprived” nations. He reports that there is little public concern over privacy in poor nations and cites a “need to translate abstract privacy concerns into stories that relate to everyday lives.”
- 37. Boot Camp for Engineers**, Chandrani Ghosh, *Forbes*, April 16, 2001. 183  
The elite **Indian Institute of Technology** admits only the best out of the best of 150,000 applicants each year. As Chandrani Ghosh explains, graduates of the Institute have come to play a prominent **role in American business**.
- 38. The Quiet Revolution**, Suelette Dreyfus, *The UNESCO Courier*, March 2001. 185  
In many nations, **human rights** groups are learning the art of **encryption**. Other, more familiar computer applications are allowing organizations to track abuses with scientific rigor. As Suelette Dreyfus reports, such developments are subtly changing the balance of power between repressive governments and the **human rights** groups that watch them.
- 39. Commercial Satellite Imagery Comes of Age**, Ann M. Florini and Yahya Dehqanzada, *Issues in Science and Technology*, Fall 1999. 188  
The number of people and groups with access to high-quality **satellite imagery** is growing. The authors explain that this trend raises important issues concerning national territories, export controls, potential legal challenges, and international competition in the commercial imaging industry.
- 40. Information Warfare: Time to Prepare**, Bruce Berkowitz, *Issues in Science and Technology*, Winter 2000–01. 195  
According to Bruce Berkowitz, commercial computer and communications systems are at risk of becoming targets of **information warfare**, but there is little awareness of the threat. He explains why commercial systems are vulnerable and what is needed to protect the nation’s information infrastructure.

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### 41. Toy Stories, Mark Pesce, *The Sciences*, September/October 2000. 204

New interactive toys like Furby offer an illusion of consciousness and represent a “launchpad into a new chapter . . . of human relations with the artificial world.” They also serve as a reference point for Mark Pesce to sketch a brief conceptual history of **artificial intelligence** and give his prediction for what the future holds.

### 42. The Story of the 21st Century, Ray Kurzweil and Rebecca Zacks, *Technology Review*, January/February 2000. 209

In this article, Rebecca Zacks interviews Ray Kurzweil, “one of the most audacious futurists around,” about the technological continuation of **evolution** and the need to “infuse it with human values.”

### 43. Hyperculture—Stress: How Fast Times Are Transforming America, Stephen Bertman, *Vital Speeches of the Day*, January 15, 1999. 212

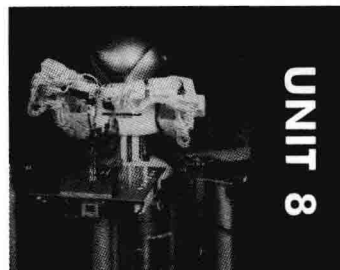
Modern technologies accelerate the pace of life, inducing **speed-driven stress** and altering the fundamental **nature of existence**. Stephen Bertman argues that both reality and our understanding of reality are being reshaped in harmful ways, but we may yet be able to reclaim our lives.

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## Philosophical Frontiers

Three articles explore issues that pose or may pose philosophical challenges for the future.

## Computers in Society

*Ninth Edition*

02/03

### EDITOR

**Kathryn Schellenberg**

*University of Michigan-Flint*

Kathryn Schellenberg earned a Ph.D. in sociology from the University of Utah and is presently a faculty member in the Department of Sociology, Anthropology, and Criminal Justice at the University of Michigan-Flint. One of her areas of scholarly interest concerns the social implications of technology, especially computing. She has published a number of studies on related topics, such as how high-technology workers and firms respond to turbulent change and uncertainty, police information practices surrounding the use of automated police information systems, and the potential impacts of "policing the police" through technological surveillance. She has recently begun to explore issues related to information practices and organizational justice in the academic workplace.

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# Topic Guide

This topic guide suggests how the selections in this book relate to the subjects covered in your course.

The Web icon (●) under the topic articles easily identifies the relevant Web sites, which are numbered and annotated on the next two pages. By linking the articles and the Web sites by topic, this ANNUAL EDITIONS reader becomes a powerful learning and research tool.

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		<b>Human Rights</b>	38. Quiet Revolution ● <b>15</b>

TOPIC AREA	TREATED IN	TOPIC AREA	TREATED IN
<b>Inequality</b>	2. Internet & Sexual Personae 3. Internet Produces a Global Village of Village Idiots 11. Great Prosperity Divide 16. Broken Homepage 21. Power Players 36. Privacy Divide? • <b>14, 15, 31</b>		30. Toward an Ethics of Persuasive Technology 41. Toy Stories 42. Story of the 21st Century 43. Hyperculture—Stress: How Fast Times Are Transforming America • <b>34, 35, 36, 37</b>
<b>Information Warfare</b>	40. Information Warfare • <b>17, 30, 31, 32, 33</b>	<b>Privacy</b>	5. Beyond the Bar Code 15. They're Watching You 19. Trust Online 32. Do You Know Who's Watching You? 33. Roundtable: Medical Privacy 36. Privacy Divide? • <b>26, 27, 28, 29, 30</b>
<b>Intellectual and Virtual Property</b>	22. Is Virtual Trespass an Apt Analogy? 23. Digital Dilemma 24. Software Patents Tangle the Web 25. Reconciling Research and the Patent System 39. Commercial Satellite Imagery Comes of Age • <b>21, 22, 24</b>	<b>Remote Imaging/Sensing</b>	39. Commercial Satellite Imagery Comes of Age • <b>33</b>
<b>International Issues</b>	34. Lost in Translation 35. Is Online Democracy in the EU for Professionals Only? 36. Privacy Divide? 37. Boot Camp for Engineers 38. Quiet Revolution 39. Commercial Satellite Imagery Comes of Age 40. Information Warfare • <b>31, 32, 33</b>	<b>Revolution</b>	1. From Movable Type to Data Deluge 3. Internet Produces a Global Village of Village Idiots • <b>2</b>
<b>Legal Issues</b>	15. They're Watching You 22. Is Virtual Trespass an Apt Analogy? 23. Digital Dilemma 29. How Hacker's Break In • <b>15, 21, 22, 23, 24, 25, 26, 27, 28</b>	<b>Risk and Technological Failure</b>	40. Information Warfare • <b>18, 30, 32, 37</b>
<b>Philosophical Issues</b>	1. From Movable Type to Data Deluge 2. Internet & Sexual Personae 3. Internet Produces a Global Village of Village Idiots	<b>Stress (Psychological Effects)</b>	14. Dealing With Tech Rage 43. Hyperculture—Stress: How Fast Times Are Transforming America • <b>8</b>
		<b>Work, Employment, and the Workplace</b>	4. Making the Chips That Run the World 10. i2i Trust in E-Commerce 11. Great Prosperity Divide 12. Click and Learn 13. "You're Hired, Now Go Home" 14. Dealing With Tech Rage 15. They're Watching You 17. Growing Up Digital 37. Boot Camp for Engineers • <b>1, 2, 7, 8, 9, 10</b>



## ● AE: Computers in Society

The following World Wide Web sites have been carefully researched and selected to support the articles found in this reader. The sites are cross-referenced by number and the Web icon (●) in the topic guide. In addition, it is possible to link directly to these Web sites through our DUSHKIN ONLINE support site at <http://www.dushkin.com/online/>.

**The following sites were available at the time of publication. Visit our Web site—we update DUSHKIN ONLINE regularly to reflect any changes.**

### Introduction

#### 1. Livelink Intranet Guided Tour

<http://www.opentext.com>

Livelink Intranet helps companies to manage and control documents, business processes, and projects more effectively. Take this tour to see how.

#### 2. Short History of the Internet

<http://w3.ag.uiuc.edu/ALM/scale/nethistory.html>

Bruce Sterling begins with the development of the idea for the Internet by the cold war think tank, the Rand Corporation, and goes on to explain how computer networking works. There are links to other sites and to further reading.

### The Economy

#### 3. E-Commerce Times

<http://www.ecommercetimes.com>

E-Commerce Times is a gateway to a wealth of current information and resources concerning e-commerce.

#### 4. The End of Cash (James Gleick)

<http://www.around.com/money.html>

This article, previously published in the *New York Times*, on June 16, 1996, discusses the obsolescence of cash.

#### 5. The Rise of the Informediary

<http://www.ait.unl.edu/crane/misgrad/sglee/informediary.htm>

The author of this site explains what an informediary is and what an informediary does. He also shows why the informediary is so important in today's business environment.

#### 6. Mersch Online: E-Cash Links

<http://www.mersch.com/links/moneyzz.htm>

This page has a good series of links to other sources of information about E-cash.

### Work and the Workplace

#### 7. Cisco E-Learning

<http://www.cisco.com/warp/public/10/wwtraining/elearning/elearning.html>

E-learning is Internet-enabled learning. This site explains why e-learning is important. It also contains an E-learning glossary.

#### 8. InfoWeb: Techno-rage

<http://www.cciw.com/content/technorage.html>

Techno-rage is becoming more and more common. This site provides information and resources regarding techno-rage and techno-stress.

#### 9. STEP ON IT! Pedals: Repetitive Strain Injury

<http://www.bilbo.com/rsi2.html>

Data on carpal tunnel syndrome are presented here with links to alternative approaches to the computer keyboard, and links to related information.

#### 10. Telecommuting

<http://www.sangabriel.com/telecommuting.htm>

A list of interesting information regarding concepts, experiences, and the future of telecommuting may be accessed here.

### Computers, People, and Social Participation

#### 11. Adoption Agencies

<http://www.adoptionagencies.org/mfrain.htm>

Here is an example of the much-talked-about new trend of online adoption agencies.

#### 12. Alliance for Childhood: Computers and Children

<http://www.allianceforchildhood.net/projects/computers/index.htm>

How are computers affecting the intellectual growth of children? Here is one opinion provided by the Alliance for Childhood.

#### 13. The Core Rules of Netiquette

<http://www.albion.com/netiquette/corerules.html>

Excerpted from Virginia Shea's book *Netiquette*, this is a classic work in the field of online communication.

#### 14. SocioSite: Networks, Groups, and Social Interaction

<http://www.pscw.uva.nl/sociosite/topics/interaction.html>

This site provides sociological and psychological resources and research regarding the effect of computers on social interaction.

### Societal Institutions—(Property) Law and Politics

#### 15. ACLU: American Civil Liberties Union

<http://www.aclu.org>

Click on the Supreme Court's Internet decision, plus details of the case *Reno v. ACLU* and the ACLU's campaign to restore information privacy; "Take Back Your Data"; and cyber-liberties and free speech for opinions on First Amendment rights as they apply to cyberspace.

#### 16. edemocracy

<http://www.democracy.org.uk/home.html>

Edemocracy provides information, resources, help, and guidance on electronic democracy. Through its resource center it also provides access to data on electronic democracy.

#### 17. Information Warfare and U.S. Critical Infrastructure

<http://www.twurl.com>

The "twURled World" contains a pie chart of URLs involved in IW (information warfare) as well as report main pages that list Internet domains, keywords in contexts and by individual terms, and listing of all URLs and links to details.

#### 18. Issues in Telecommunication and Democracy

<http://www.benton.org/Library/TeleDemocracy/working8.html>

This article, prepared under the aegis of the Benton Foundation, discusses the issues surrounding telecommunications in the twenty-first century.

## 19. Living in the Electronic Village

<http://www.rileyis.com/publications/phase1/execsumm.htm>  
This site addresses the impact of information in technology on government. Shown is the executive summary, but seven other sections are equally pertinent.

## 20. Patrolling the Empire

<http://www.csrp.org/patrol.htm>  
Reprinted from *CovertAction Quarterly*, this article by Randy K. Schwartz details the plans of NIMA (National Imagery and Mapping Agency) for future wars by helping to fuse high-tech surveillance and weaponry.

## 21. United States Patent and Trademark Office

<http://www.uspto.gov>  
This is the official homepage of the U.S. Patent and Trademark Office. Use this site to search patents and trademarks, apply for patents, and more.

## 22. World Intellectual Property Organization

<http://www.wipo.org>  
Visit the World Intellectual Property Organization Web site to find information and issues pertaining to virtual and intellectual property.

## Societal Values and Risks: Ethics, Privacy, and Preserving the Past

## 23. Antionline: Hacking and Hackers

<http://www.antionline.com>  
This site is designed to help the average person learn how to protect against hackers.

## 24. Copyright & Trademark Information for the IEEE Computer Society

<http://computer.org/copyright.htm>  
Here is an example of how a publication on the Web is legally protected. The section on Intellectual Property Rights Information contains further information about reuse permission and copyright policies.

## 25. Dangers of Real-Time Video Manipulation

<http://www.indiaserver.com/businessline/2001/03/23/stories/042367md.htm>  
What threat does real-time video manipulation technology pose? This article explains some of the concerns regarding this new technology.

## 26. Electronic Privacy Information Center (EPIC)

<http://epic.org>  
EPIC is a private research organization that was established in 1994 to focus public attention on emerging civil liberties issues and to protect privacy, the First Amendment, and constitutional values. This site contains news, resources, policy archives, and a search mechanism.

## 27. Internet Privacy Coalition

<http://www.privacy.org/ipc/>  
The mission of the Internet Privacy Coalition is to promote privacy and security on the Internet through widespread public availability of strong encryption and the relaxation of export controls on cryptography.

## 28. Center for Democracy and Technology

<http://www.cdt.org/crypto/>  
These pages are maintained for discussion and information about data privacy and security, encryption, and the need for policy reform. The site discusses pending legislation, Department of Commerce Export Regulations, and other initiatives.

## 29. Survive Spyware

<http://www.cnet.com/internet/0-3761-8-3217791-1.html>  
Internet spying is a huge problem. Advertisers, Web designers, and even the government are using the Net to spy on you. CNET.com provides information about spyware and detecting spying eyes that will help you eliminate the threat.

## 30. An Electronic Pearl Harbor? Not Likely

<http://www.nap.edu/issues/15.1/smith.htm>  
Is the threat of information warfare real? Yes. Do we need to be completely concerned? Probably not. This site tries to dispel some of the myths and hoaxes concerning information warfare.

## International Perspectives and Issues

## 31. Encryption in the Service of Human Rights

<http://www.aaas.org/spp/dspp/cstc/briefing/crypto/dinah.htm>  
Here is a briefing paper from the Human Rights Watch concerning encryption in the service of human rights. What role does encryption play in the Human Rights Movement?

## 32. National Security in the Information Age

<http://www.terrorism.com/documents/devostthesis.html>  
This thesis project by Matthew G. Devost from the University of Vermont explores the new role that national security will play in the information age.

## 33. Satellite Imagery in Court

<http://www.crowsey.com/spacearticle.htm>  
This article explains how satellite imagery works and predicts that it will be an important tool in the future. The article also asks whether or not satellite imagery technology, as it evolves, will invade our homes and impinge upon our human rights.

## Philosophical Frontiers

## 34. IEEE Robotics and Automation Society Home Page

<http://www.ncsu.edu/IEEE-RAS/>  
You may get information about robotics within the Institute of Electrical Engineers' RAS (Robotics and Automation Society), as well as links to other associations, government, industry, publishing, and university sources and sites here.

## 35. Introduction to Artificial Intelligence (AI)

<http://www-formal.stanford.edu/jmc/aiintro/aiintro.html>  
This statement describes AI. Click on John McCarthy's home page for a list of additional papers.

## 36. Kasparov vs. Deep Blue: The Rematch

<http://www.chess.ibm.com/home/html/b.html>  
Video clips and a discussion of the historic chess rematch between Garry Kasparov and Deep Blue are available on this site.

## 37. WWW Resources

<http://alife.santafe.edu/alife/www/>  
Start here to find links to many alife (artificial life) Web sites, including demonstrations, research centers and groups, and other resources.

**We highly recommend that you review our Web site for expanded information and our other product lines. We are continually updating and adding links to our Web site in order to offer you the most usable and useful information that will support and expand the value of your Annual Editions. You can reach us at:**  
<http://www.dushkin.com/annualeditions/>.

## Unit Selections

1. **From Movable Type to Data Deluge**, John Gehl and Suzanne Douglas
2. **The Internet & Sexual Personae** Camille Paglia
3. **The Internet Produces a Global Village of Village Idiots**, Richard John Neuhaus

## Key Points to Consider

- ❖ If we discover that we dislike some of the social changes that result from new technologies, can we discard our inventions or channel their effects to more desirable ends? Defend your answer.
- ❖ The ultra-libertarian versus traditional ideals espoused by Camille Paglia (see “The Internet & Sexual Personae”) and Richard Neuhaus (see “The Internet Produces a Global Village of Village Idiots”) underscore the wide diversity of values that exist in society. If we have a choice about which technologies are developed and how they are used, how could we resolve conflicts between groups with strongly opposing values and objectives?



## Links

[www.dushkin.com/online/](http://www.dushkin.com/online/)

1. **Livelihood Intranet Guided Tour**  
<http://www.opentext.com>
2. **Short History of the Internet**  
<http://w3.ag.uiuc.edu/AIM/scale/nethistory.html>

These sites are annotated on pages 4 and 5.