

IS 30: Information Technology in Society
Winter 2004

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MW 11:00 a.m. – 12:50 p.m.

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Office hours TBA

Course Description and Objectives

This course is an introduction to the historical development of information technologies and related systems (telecommunications, scientific and management information systems, media), and to key social, political, economic and legal issues related to IT in the U.S. and internationally. The purpose of the course is to familiarize students with the development of information technologies and the major social issues involved in the creation, use, circulation and disposition of information in society. The course is open to all undergraduate students.

Upon satisfactory completion of this course, students should be able to:

- Summarize the main points of the historical development of various information technologies;
- Summarize the major social issues associated with information and information technology, including privacy, intellectual property, censorship, and globalization;
- Discuss and critique current perspectives or points of view on each of these issues;
- Stay informed about each issue through a critical and reflective survey of news coverage and more specialized general-interest media sources.

Exams and Grading. Student learning in the course will be evaluated by midterm and final examinations that assess the student's ability to describe and reflect on the key issues covered in the course, and by class participation. Together, the two examinations account for approximately 80% of the grade, with the remaining 20% based on the student's preparation for and participation in class discussion, both online and in person.

Readings. Students will be expected to make cogent and prepared contributions to class discussions based on the assigned readings, which must be completed before class. Readings are listed below under **Weekly Topics and Readings**. Some readings are compiled in a reader, and others are available online. The reader is available from Westwood Copies, near the corner of Gayley and Weyburn in Westwood Village.

Weekly Topics and Readings

[Week 1: What is Information Technology? Part I](#)

The basic history of information technology is briefly surveyed, from early oral cultures and writing, to printing, classification and indexing, through more modern systems of publishing.

Week 2: What is Information Technology? Part II

The survey of technologies continues, covering visual media such as still and motion photography; electronic technologies such as broadcasting and telecommunications; modern computing, documentation and information retrieval systems; and contemporary convergent infrastructures that combine other technologies, such as the Internet and wireless networks.

Week 3: Information Institutions

The major social institutions involved in information and information technology production and use are introduced, with a particular emphasis on the role of education, government, cultural institutions (e.g., libraries, museums, archives), and media industries.

Week 4: Information and Human Life

Questions of human nature and agency are explored in light of current developments in genomics and bioinformatics, and biometric technologies for collecting and classifying information about individuals.

Week 5: Information and Identity

How information technology plays a role in the formation of individual and group identity, self-presentation, and relationships; including a discussion of current developments such as identity play, online aliases and avatars, cyborg life and virtual reality, and identity theft.

Week 6: Privacy

An introduction basic concepts of intellectual freedom (e.g., "freedom to read"), the legal foundations of privacy rights in U.S. and other nations; the tensions between security, surveillance and privacy.

Week 7: Content Regulation

Overview of the history of censorship and decency laws in the U.S. and other nations; community standards; tension with speech and press freedoms.

Week 8: Intellectual Property

Foundations of intellectual property concepts in copyrights, patents, and the public domain; licensing issues; interests of intellectual property owners versus those of other groups; information as a commodity; changing notions of key criteria such as novelty, creativity and tangible form.

Week 9: Information Equity and Access

The relative levels of access to information and information technology of different social, economic, ethnic, gender, language, geographic, or age groups; a historical overview of inequities from early studies of "information rich and poor" to today's "digital divide"; The role of education, government and cultural institutions in providing access; the historical preservation of information resources and technology.

Week 10: Networks and Globalization

The role of information technology in the growing interconnectedness of nation-states, trade relationships, social movements, capital flows, and legal systems; and the tensions between globalization trends and the survival of local cultures, economies, and practices.

5. List of Prospective Textbooks

Because of the broad scope of the course, the prospective textbooks listed here are principally collections of excerpts, chapters, essays and other works by many authors on a range of topics related to information and information technology.

Castells, M. (2002). *The Internet Galaxy*. Oxford and New York: Oxford University Press.

Chandler, A.D. Jr. and Cortada, J.W. (Eds.) (2000). *A Nation Transformed by Information*. Oxford and New York: Oxford University Press.

Kling, R. (Ed.) (1996). *Computerization and Controversy: Value Conflicts and Social Choices* (2nd ed.). San Diego, CA: Academic Press.

Mackenzie, D. and Wajcman, J. (Eds.) (1999). *The Social Shaping of Technology* (2nd ed.). Buckingham and Philadelphia: Open University Press.

Packer, R. and Jordan, K. (Eds.) (2001). *Multimedia: From Wagner to Virtual Reality*. New York: W.W. Norton.

Rhodes, R. (Ed.) (1999). *Visions of Technology*. New York: Simon & Schuster.

Teich, A.H. (Ed.) (2000). *Technology and the Future* (9th ed.). Boston, MA: Bedford-St. Martin's.

6. Reading List

A wide range of additional print and online materials will be used to cover particular topics in the course. Because the topics in this course change rapidly, the following list is intended to suggest the quality and breadth of materials to be used; it is not comprehensive and is necessarily subject to change.

Abbate, J. (1999). *Inventing the Internet*. Cambridge: MIT Press.

Agre, P.E. and Rotenberg, M. (Eds.) (1997). *Technology and Privacy: The New Landscape*. Cambridge: MIT Press.

American Library Association website. URL: <http://www.ala.org/>

Anderson, R.H., Bikson, T., Law, S.A., and Mitchell, B.M. (1995). *Universal Access to Email: Feasibility and Societal Implications*. Santa Monica, CA: Rand. Available at <http://www.rand.org/publications/MR/MR650>.

Barlow, J.P. (1994) *Jackboots on the Infobahn*. *Wired* 2.04. Available: <http://www.wired.com/wired/archive/2.04/privacy.barlow.html>

Borgman, C.L. (2001). *From Gutenberg to the Global Information Highway*. Cambridge: MIT Press.

Bowker, G.C. and Star, S.L. (1999). *Sorting Things Out: Classification and its Consequences*. Cambridge: MIT Press.

- Branscomb, A.W. (1994). *Who Owns Information?* New York: Basic Books.
- Brown, J.C. and Duguid, P. (1995). *The social life of documents*. *First Monday*. URL: <http://www.firstmonday.dk/issue1/documents/index.html#03>.
- Bush, V. (1945). *As we may think*. *Atlantic Monthly*, July.
- Ceruzzi, P.E. (1998). *A History of Modern Computing*. Cambridge: MIT Press.
- Cohen, J.E. (1996). *A right to read anonymously: A closer look at copyright management in cyberspace*. *28 Connecticut Law Review* 28: 981-1039.
- Deglobalization: From the Anglo-American Model to Market Pluralism. (1999). *Special issue of New Perspectives Quarterly*, 16(1), Winter.
- Diffie, W. and Landau, S. (1998). *Privacy on the Line: The Politics of Wiretapping and Encryption*. Cambridge: MIT Press.
- Druckrey, T. (Ed.) (1996). *Electronic Culture: Technology and Visual Representation*. New York: Aperture.
- Edwards, P.N. (1996). *The Closed World: Computers and the Politics of Discourse in Cold War America*. Cambridge: MIT Press.
- Electronic Privacy Information Center website. URL: <http://www.epic.org/>
- Hayles, N.K. (1993). *The materiality of informatics*. *Configurations: A Journal of Literature, Science and Technology*, 1, Winter.
- Hobart, M.E. and Schiffman, Z.S. (1998). *Information Ages: Literacy, Numeracy and the Computer Revolution*. Baltimore, MD: Johns Hopkins University Press.
- Jones, S.G. (Ed.) (1998). *Cybersociety 2.0: Revisiting Computer-Mediated Communication and Community*. Thousand Oaks, CA: Sage.
- Katsh, M.E. (1995). *Law in a Digital World*. New York: Oxford University Press.
- Lessig, L. (2001). *The Future of Ideas: The Fate of the Commons in a Connected World*. New York: Random House.
- Lessig, L. (1999). *Code and Other Laws of Cyberspace*. New York: Basic Books.
- Lievrouw, L.A. and Livingstone, S. (Eds.) (2002). *The Handbook of New Media: Social Shaping and Consequences of ICTs*. London: Sage.
- Litman, J. (2001). *Digital Copyright*. Amherst, NY: Prometheus Books.
- Loader, B.D. (1998). *Cyberspace Divide: Equality, Agency and Policy in the Information Society*. London: Routledge.
- Marvin, C. (1988). *When Old Technologies were New*. New York and Oxford: Oxford University Press.

- Mitchell, W.J. (1995). *City of Bits: Space, Place and the Infobahn*. Cambridge: MIT Press.
- Morris, A.D. and Mueller, C.M. (Eds.) (1992). *Frontiers in Social Movement Theory*. New Haven, CT: Yale University Press.
- Nardi, B.A. and O'Day, V.L. (1999). *Information Ecologies: Using Technology with Heart*. Cambridge: MIT Press.
- Negroponte, N. (1995). *Being Digital*. New York: Alfred A. Knopf.
- Nunberg, G. (Ed.) (1996). *The Future of the Book*. Berkeley and Los Angeles: University of California Press.
- Pool, I. deS. (1990). *Technologies Without Boundaries: On Telecommunications in a Global Age*. Cambridge: Harvard University Press.
- Putnam, R.D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.
- Rosen, J. (2000). *The Unwanted Gaze: The Destruction of Privacy in America*. New York: Random House.
- Smith, M.A. and Kollock, P. (1999). *Communities in Cyberspace*. London and New York: Routledge.
- Stoll, C. (1995). *Silicon Snake Oil*. New York: Anchor Books.
- Stone, A.R. (1995). *The War of Desire and Technology at the Close of the Mechanical Age*. Cambridge: MIT Press.
- Straubhaar, J. and LaRose, R. (2002). *Media Now: Communications Media in the Information Age*. Belmont, CA: Wadsworth.
- Sunstein, C. (2001). *Republic.com*. Princeton: Princeton University Press.
- Sztompka, P. (1993). *The Sociology of Social Change*. Oxford: Blackwell.
- Turkle, S. (1984). *The Second Self: Computers and the Human Spirit*. New York: Simon & Schuster.
- Turkle, S. (1995). *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster.
- Webster, F. (1995). *Theories of the Information Society*. London and New York: Routledge.
- Zweiger, G. (2001). *Transducing the Genome: Information, Anarchy, and Revolution in the Biomedical Sciences*. New York: McGraw-Hill.