

**21A.350 / SP.484J / STS.086**  
**The Anthropology of Computing: Digital Cultures**  
**Spring 2009 MIT**

*Course Syllabus*

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**Time:** Tues & Thurs 2:30-4:00  
**Location:** 16-220  
**Class website:** <http://stellar.mit.edu/S/course/21A/sp09/21A.350J/>  
**Lecturer:** Lucy Suchman (Visiting Professor)  
**Office hours:** Wed 2-3:30 or by appointment  
**Contact info:** 16-267, tel (617) 253-3065

**Overview**

In this course we will examine various forms of digitally-based artifacts and associated practices anthropologically, in order to understand the social orders and cultural assumptions that sustain them. The course readings include some defining texts, which we'll read along with cultural analyses of computing history and of various contemporary configurations of persons and machines. We'll explore the history of automata, automation and capitalist manufacturing, cybernetics, WWII and the Cold War; artificial intelligence and robotics; cyborgs, technobodies and virtual sociality; digital identities; geeks, gamers and hactivism. Throughout the course we'll be attentive to issues of gender, race and other marks of sameness and difference as they operate among humans, and between humans and machines.

**Teaching approach**

The course will be conducted as a seminar – with introductory lectures, excerpts from films or other media representations relevant to the week's topic, class discussions of readings, and student presentations. In general Tuesdays will be organized around a lecture and discussion, Thursdays around readings. Each Thursday two students will be asked to lead the discussion of the week's readings. Active participation in discussions, based on reading and/or experience is expected. Be sure to bring marked-up copies of required readings to Thursday classes.

Each week we'll discuss the *required readings* intensively and in relation to each other. The emphasis here is on careful reading rather than quantity; that is, the assignments are not extensive in terms of pages so that you have time to read closely and think about what you're reading. There are also additional sources provided for each week that you can draw on for your Final Projects (see *Assignments*).

## **On-line Facilities:**

See the class website for required readings and other course materials, as well as updates from the instructor throughout the term.

## **Requirements:**

Grades will be based on:

**Short analytic essay (15%)**

**Fieldnotes (20%)**

**Final project (45%)**

**Class participation and evidence of preparation (20%)**

See *Assignments* document for further details.

## **Texts:**

Required readings will be made available on the class Stellar site, however these are books that we'll be drawing from that would make good additions to your library if you're interested in these topics. Buying or borrowing the books will also provide you with the full list of readings that the authors reference. (Texts marked with an asterisk will be included in required readings.)

\*Boellstorff, Tom (2008) *Coming of Age in Second Life*. Princeton: Princeton University Press.

Edwards, Paul (1996) *The Closed World: Computers and the Politics of Discourse in Cold War America*. Cambridge: MIT Press.

Featherstone, Mike and Burrows, Roger (1995) *Cyberspace, Cyberbodies, Cyberpunk: Cultures of Technological Embodiment*. London: Sage. (alternative to downloading journal papers)

Helmreich, Stefan (2000) *Silicon Second Nature: Culturing Artificial Life in a Digital World*. paperback edition with a new preface. Berkeley: University of California Press.

\*Kelty, Christopher (2008) *Two Bits: The cultural significance of free software*. Durham and London: Duke University Press.

\*Kember, Sarah (2003) *Cyberfeminism and Artificial Life*. London & New York: Routledge.

Mackenzie, Donald A. and Wajcman, Judy (1999) *The social shaping of technology*. Buckingham ; Philadelphia, Pa.: Open University Press.

Riskin, Jessica (2007) *Genesis Redux: Essays in the history and philosophy of artificial life*. Chicago: University of Chicago.

Suchman, Lucy (2007) *Human-Machine Reconfigurations*. Cambridge, UK: Cambridge University Press.

\*Taylor, T.L. (2006) *Play Between Worlds: Exploring online gaming culture*. Cambridge, MA: MIT Press.

Turkle, Sherry (2005) *The Second Self: Computers and the human spirit (20th anniversary edition)*. Cambridge, MA: MIT Press.

\*Wiener, Norbert ([1948]1985) *Cybernetics: or Control and Communication in the Animal and the Machine*, second edition. Cambridge: MIT Press

Schedule:

**Week 1, Tues Feb 3**                      *Course Introduction*

In this first meeting I'll offer an overview of the course and we'll discuss expectations (both mine and yours) for the work that you'll be asked to do and what you hope to learn. We'll clarify how theory and methods from anthropology and science and technology studies will inform our discussions, as well as the sense of 'digital cultures' as a frame for the range of topics to be covered. We'll begin to explore the anthropological terrain of the course with a viewing of the documentary *Gamer Revolution*.

No readings

Film: *Gamer Revolution* (2007), Part 1 (45 mins.), Red Apple Entertainment.

Thurs, Feb 5

**Required reading**

Taylor, T.L. (2006) *Play Between Worlds: Exploring online gaming culture*. Cambridge, MA: MIT Press, Introduction pp. 1-19.

**Preparation** Come to class prepared to discuss some aspect of digital cultures that interests you, illustrated with an example drawn from film, fiction, or nonfiction media (e.g. relevant blogs, news reports, youtube videos, films, games, social networking sites). You might use the topics of the class syllabus for inspiration, but other topics not anticipated here are also welcome. We'll use our discussion of the examples you bring to help shape the course direction and emphases.

*Discussion facilitation schedule finalized*

**Week 2, Tues Feb 10, Thurs Feb 12**                      *Automata histories*

**Required readings**

Riskin, Jessica (2003) The Defecating Duck, Or, The Ambiguous Origins of Artificial Life. *Critical Inquiry* 20: 599-633.

Brooks, Rodney (2002) *Flesh and machines: how robots will change us*. New York: Pantheon Books, chpt 7 pp. 148-171.

Additional sources

Channell, David (1991) *The Vital Machine*. New York and Oxford: Oxford University Press.

Morus, Iwan Rhys (2002) *Bodies/Machines*. Oxford: Berg.

Riskin, Jessica (2003) Eighteenth Century Wetware. *Representations* 83: 97-125.

- Riskin, Jessica (2007) *Genesis Redux: Essays in the history and philosophy of artificial life*. Chicago: University of Chicago.
- Standage, Tom (2002) *The Turk: The Life and Times of the Famous Eighteenth Century Chess-Playing Machine*. New York.
- Wood, Gaby (2002) *Living Dolls: A Magical History of the Quest for Mechanical Life*. London: Faber and Faber.

**Week 3, [No class Feb 17] Thurs Feb 19                      *Automation***

**Required readings**

- Cockburn, Cynthia (1981) The Material of Male Power. *Feminist Review* 9: 41-58..
- Freeman, Carla (1993) Designing Women: Corporate Discipline and Barbados's Off-Shore Pink-Collar Sector. *Cultural Anthropology* 8.

**Additional sources**

- Cowan, Ruth Schwartz (1999) The industrial revolution in the home. In D. Mackenzie & J. Wajcman (eds.), *The Social Shaping of Technology*, 2nd Edition. pp. 281-300.
- Forty, Adrian (1986), *Objects of desire: design and society, 1750-1980*, London: Thames & Hudson. Chapter 9.
- Foucault, Michel (1979) *Discipline & Punish: The birth of the prison*. New York: Vintage (see especially 'Docile Bodies', pp. 135-169).
- Freeman, Carla (2000) *High Tech and High Heels in the Global Economy*. Durham and London: Duke University Press.
- Garson, Barbara (1988) *The Electronic Sweatshop*. New York: Simon and Schuster.
- Marx, Karl (1876/1999) The Machine versus the Worker. In Mackenzie, Donald A. and Wajcman, Judy (1999) *The social shaping of technology*, 2nd Edition. Buckingham; Philadelphia, Pa.: Open University Press, pp. 156-7.
- Noble, David (1999) Social choice in machine design: the case of automatically controlled machine tools. In D. Mackenzie & J. Wajcman (eds.), *The Social Shaping of Technology*, 2nd Edition. pp. 161-176.
- Schaffer, Simon (1994) Babbage's Intelligence: Calculating Engines and the Factory System. *Critical Inquiry* 21(1):203-227.
- Thomas, Robert J. (1994/1999) *What machines can't do: politics and technology in the industrial enterprise*. Berkeley: University of California Press. Excerpt in In D. Mackenzie & J. Wajcman (eds.), *The Social Shaping of Technology*, 2nd Edition. pp. 281-300, pp. 199-221.
- Zuboff, Shoshana (1988) *In the Age of the Smart Machine: The future of work and power*. New York: Basic Books.
- Film: excerpts from *Modern Times*

**Week 4, Tues Feb 24, Thurs Feb26**

***Social histories: the origins of the ‘cyber’***

**Required readings**

Tomas, David (1995) Feedback and Cybernetics: Reimagining the body in the age of the cyborg. *Body and Society* 1: 21-43.

Wiener, Norbert ([1948]1985) *Cybernetics: or Control and Communication in the Animal and the Machine*, second edition. Cambridge: MIT Press, pp. 1-29, 155-165.

**Additional sources**

Bateson, Gregory (1972) Cybernetic Explanation. In *Steps to an Ecology of Mind*. Chicago: University of Chicago, pp. 405-416.

Bowker, Geoffrey (1993) How to be Universal: Some cybernetic strategies, 1943-1970. *Social Studies of Science* 23: 107-127.

Bush, Vannevar (1945) As We May Think. *The Atlantic Monthly* 176(1):101-108. Online: [www.csi.uottawa.ca/~dduchier/misc/vbush/awmt.html](http://www.csi.uottawa.ca/~dduchier/misc/vbush/awmt.html)

Edwards, Paul (1996) *The Closed World: Computers and the Politics of Discourse in Cold War America*. Cambridge: MIT Press.

Eglash, Ron (2000) Cultural Cybernetics: the Mutual Construction of People and Machines <http://www.rpi.edu/~eglash/eglash.dir/cyb/cultcyb.dir/cultcyb.htm>

Hayles, N. Katherine (1999) Liberal Subjectivity Imperiled: Norbert Wiener and Cybernetic Anxiety. From *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press, 84-112. <http://www.english.ucla.edu/faculty/hayles/Wiener.htm>

Orr, Jackie (2006) *Panic Diaries: A genealogy of panic disorder*. Durham: Duke University Press (see especially Chapter 3, pp. 79-164).

Plant, Sadie (1995) The Future Looms: Weaving women and cybernetics. *Body and Society* 1: 45-64.

Rosenblueth, Arturo, Wiener, Norbert and Bigelow, Julian (1943) Behavior, Purpose and Teleology. *Philosophy of Science* 10: 18-24.

film excerpt: *War Games*

**Week 5, Tues Mar 3 [No class Mar 5] *Cybergeographies, cyberpolitics and postcolonial computing***

**Required readings**

Gajjala, Radhika (2002) An Interrupted Postcolonial/Feminist Cyberethnography: Complicity and Resistance in the “Cyberfield”. *Feminist Media Studies* 2: 177-193.

Helmreich, Stefan (1999) Digitizing “development”: Balinese water temples, complexity, and the politics of simulation. *Critique of Anthropology* 19: 249-266.

Additional sources:

- Adams, Paul C. and Warf, Barney (1997) Introduction: Cyberspace and Geographical Space. *Geographical Review* 87: 139-145.
- Bleecker, Julian (1995) Urban Crisis: Past, Present and Virtual. *Socialist Review* 24: 189-221.
- Chan, Anita. 2003. Coding Free Software, Coding Free States: Free Software Legislation and the Politics of Code in Peru. *Anthropological Quarterly* 77(3): 531-545. Online: [muse.jhu.edu/journals/anthropological\\_quarterly/toc/anq77.3.html](http://muse.jhu.edu/journals/anthropological_quarterly/toc/anq77.3.html)
- Dodge, Martin and Kitchin, Rob (2004) *Mapping Cyberspace*. London and New York: Routledge [electronic resource]
- Eglash, Ron and Bleeker, Julian (2001) The Race for Cyberspace: Information technology in the Black diaspora. *Science as Culture* 10 (3): 353-374.
- Eglash, Ron (2000) When Terabyte Makes Right: The Changing Role of Computing Power in the Social Authority of Simulations. <http://www.rpi.edu/~eglash/eglash.dir/cyb/power.dir/power.htm>
- Escobar, Arturo (1994) Welcome to Cyberia: Notes on the anthropology of cyberculture. *Current Anthropology* 35.
- Fischer, Michael (1999) Worlding Cyberspace: Toward a critical ethnography in time, space, and theory. In G. Marcus (ed.), *Critical Anthropology Now* pp. 245-304. Santa Fe, NM: School of American Research.
- Gajjala, Radhika and Annapurna Mamidipudi (1999) Cyberfeminism, Technology and International 'Development.' *Gender and Development* 7 (2): 8-16.
- Kumar, Amitava (2001) Temporary Access: The Indian H-1B Worker in the United States. In *Technicolor: Race, Technology, and Everyday Life*. Alondra Nelson and Thuy Linh N. Tu with Alicia Headlam Hines, eds. New York: NYU Press, 76-87.
- Mosco, Vincent (2005) *The Digital Sublime: Myth, Power and Cyberspace*. Cambridge, MA: MIT Press.
- Sundaram, Ravi (2001) Recycling Modernity: Pirate Electronic Cultures in India. Online: [www.sarai.net/journal/reader1.html](http://www.sarai.net/journal/reader1.html)

**Required readings**

- Turing, Alan (1950) Computing Machinery and Intelligence. *Mind* 59 (236):433-460.
- Breazeal, Cynthia (2005) Socially Intelligent Robots. *Interactions* 12: 19-22.
- Chasin, Alexandra (1995) Class and its Close Relations: Identities among women, servants, and machines. In J. Halberstram & I. Livingston (eds.), *Posthuman Bodies* pp. 73-96. Bloomington: Indiana University Press.

**Additional sources**

- Adam, Alison. 1998. *Artificial Knowing: Gender and the Thinking Machine*. New York: Routledge.
- Agre, Philip (1997) *Computation and Human Experience*. New York: Cambridge University Press.
- Brooks, Rodney (1990) Elephants Don't Play Chess. *Robotics and Autonomous Systems* 6: 3-15.
- Brooks, Rodney (2002) *Flesh and machines: how robots will change us*. New York: Pantheon Books.
- Button, Graham, Coulter, Jeff, Lee, John R. and Sharrock, Wes (1995) *Computers, Minds and Conduct*. Oxford and Cambridge: Blackwell.
- Collins, H. M. (1990) *Artificial Experts: Social Knowledge and Intelligent Machines*. Cambridge, MA: MIT Press.
- Dreyfus, Hubert. (1992) *What Computers Still Can't Do: A Critique of Artificial Reason*. Cambridge, MA and London: MIT Press.
- Forsythe, Diana, and David J. Hess (2001) *Studying those who study us: an anthropologist in the world of artificial intelligence, Writing science*. Stanford, Calif.: Stanford University Press.
- Halberstam, Judith (1991) Automating Gender: Postmodern feminism in the age of the intelligent machines. *Feminist Studies* 17: 439-60.
- Powers, Richard (1996) *Galatea 2.2*. New York: Harper Perennial.
- Suchman, Lucy (2007) *Human-Machine Reconfigurations*. Cambridge, UK: Cambridge University Press, chapters 12 and 13.
- Suchman, Lucy (2007) Feminist STS and the Sciences of the Artificial. In E. Hackett, O. Amsterdamska, M. Lynch & J. Wajcman (eds.), *The Handbook of Science and Technology Studies, Third Edition* pp. 139-163. Cambridge, MA: MIT Press.
- Film excerpt: *A.I.*

**Week 7, Tues Mar 17, Thurs Mar19**

***Bioinformatics and artificial life***

**Required readings**

Helmreich, Stefan (2001) *After Culture: Reflections on the apparition of anthropology in artificial life, a science of simulation.* *Cultural Anthropology* 16: 612-627.

Kember, Sarah (2003) *Artificial Life.* Chpt. 3 in *Cyberfeminism and Artificial Life.* London & New York: Routledge, pp. 53-82.

**Additional sources**

Doyle, Richard (1997) *On Beyond Living: Rhetorical transformations of the Life Sciences.* Stanford: Stanford University Press.

Franklin, Sarah (2000) *Life Itself: Global nature and the genetic imaginary.* In *Global Nature, Global Culture,* edited by S. Franklin, C. Lury and J. Stacey. London: Sage.

Fujimura, Joan (2005) *Postgenomic Futures: Translations Across the Machine-Nature Border in Systems Biology.* *New Genetics & Society* 24: 195-225.

Hayles, N. Katherine (1996) *Narratives of Artificial Life.* In *Future Natural: Nature, science, culture.* G. Roberston et al (eds.) London: Routledge, pp. 146-164.

Helmreich, Stefan (2000) *Silicon Second Nature: Culturing Artificial Life in a Digital World.* updated edition with a new preface. Berkeley: University of California Press.

Helmreich, Stefan (2007) "Life is a Verb": *Inflections of Artificial Life in Cultural Context.* *Artificial Life* 13: 189-201.

Thacker, Eugene (2004) *Biocomputing: Is the Genome a Computer?* In *Biomedica.* Minneapolis: University of Minnesota Press, 87-114.

Tues Mar 24, Thurs Mar26

***Spring Break***

**Week 8, Tues Mar 31, Thurs April 2**

***Virtual identities and Second Lives***

**Required readings**

Boellstorff, Tom (2008) *Coming of Age in Second Life.* Princeton: Princeton University Press, Chpt 1, pp. 3-31; Chpt 4, pp. 89-117.

Taylor, T.L. (2006) *Play Between Worlds: Exploring online gaming culture.* Cambridge, MA: MIT Press, chapter 4, pp. 93-124.

**Supplementary readings:**

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

Bell, David (2001) *Identities in Cyberculture.* In *An Introduction to Cybercultures.* London and New York: Routledge, pp. 113-136.

Cherny, Lynn and Reba Wise, Elizabeth (eds.) (1996) *Wired Women: Gender and New Realities in Cyberspace,* Seal Press.

- Dibbell, Julian (1998) A Rape in Cyberspace (Or TINYSOCIETY, and How to Make One).  
Online: [www.juliandibbell.com/texts/bungle.html](http://www.juliandibbell.com/texts/bungle.html) or <http://www.villagevoice.com/2005-10-18/specials/a-rape-in-cyberspace/>
- Harcourt, Wendy (ed.) (1999) *Women@Internet*: Creating new cultures in cyberspace. London: Zed Press.
- Heim, Michael (1995) The Design of Virtual Reality. *Body and Society* 1: 65-77.
- Hine, Christine (2000) The Virtual Objects of Ethnography. Chapter 3 in *Virtual Ethnography*. London: Sage.
- Jones, Steven (ed.) (1997) *Virtual Culture: Identity and Communication in Cybersociety*. London: Sage.
- Kolko, Beth, Rodman, Gilbert and Nakamura, Lisa (1999) *Race in Cyberspace*. New York and London: Routledge.
- Mikula, Maja (2003) Virtual Landscapes of Memory. *Information, Communication & Society* Vol 6(2), pp. 169 – 186.
- Munt, Sally (ed.) (2001) *Technoscapes: Inside the new media*. London & New York: Continuum.
- Nakamura, Lisa. 2002. *Cybertypes: Race, ethnicity and identity on the Internet*. New York & London: Routledge.
- Nelson, Alondra and Tu, Thuy Linh N., and Hines, Alicia (eds.) (2001) *Technicolor: Race, Technology, and Everyday Life*. New York: New York University Press.
- O'Riordan, Kate and Phillips, David (eds.) (2007) *Queer Online: Media Technology & Sexuality*. New York: Peter Lang.
- Phillips, David (2002) Negotiating the Digital Closet: Online pseudonymity and the politics of sexual identity. *Information, Communication & Society* 5 (3):406-424
- Shields, Rob (ed.) (1996) *Cultures of Internet: Real Spaces, Real Histories, Living Bodies* London: Sage.
- Slater, Don (2002) Social Relationships and Identity, Online and Offline. In Lievrouw, Leah and Sonia Livingstone (Eds.) *Handbook of New Media: Social Shaping and Consequences of ICTs*. London: Sage, pp. 533-546
- Slater, Don (2002) Making Things Real: Ethics and order on the Internet. *Theory, Culture & Society* 19: 227-245.
- Smith, Mark and Kollock, Peter (eds.) (1999) *Communities in Cyberspace*. London: Routledge.
- Stone, Allucquere Rosanne (1991) Will the Real Body Please Stand Up?: Boundary stories about virtual cultures. In Benedikt, M. (ed.) *Cyberspace: First Steps* Cambridge: MIT Press, pp. 84-118.
- Taylor, T. L. (2006) Does WoW Change Everything?: How a PvP Server, Multinational Playerbase, and Surveillance Mod Scene Caused Me Pause, *Games & Culture* Vol. 1(4), pp. 1-20.
- Turkle, Sherry (1995) *Life on the Screen*. New York: Simon and Schuster.

- Turkle, Sherry (2005) *The Second Self: Computers and the human spirit (20th anniversary edition)*. Cambridge, MA: MIT Press.
- Webb, Stephen (2001) Avatarculture: Narrative, power and identity in virtual world environments. *Information, Communication & Society*. Vol. 4(4), pp. 560 - 594
- White, Michele (1999) Visual Pleasure in Textual Places: Gazing in multi-user object-oriented worlds. *Information, Communication & Society*. Vol 2(4), pp. 496 – 520
- Wilson, Samuel and Peterson, Leighton (2002) The Anthropology of Online Communities. *Annual Reviews of Anthropology* 31.

**Week 9**, Tues April 7, Thurs April 9                      ***Cyborgs and technobodies***

**Required readings**

- Sobchack, Vivian (1995) Beating the Meat/Surviving the Text, or How to Get Out of this Century Alive. *Body and Society* 1: 205-214.
- C. L. Moore (1944) No Woman Born. In Scotia, Thomas and Zebrowski, George (1975) *Human-Machines: An anthology of stories about cyborgs*. New York: Vintage, pp. 63-118.

**Supplementary readings:**

- Allison, Anne (2001) Cyborg Violence: Bursting borders and bodies with queer machines. *Cultural Anthropology* 16: 237-265.
- Balsamo, Anne (1996) *Technologies of the gendered body: reading cyborg women*. Durham: Duke University Press.
- Clines, Manfred and Nathan Kline (1960) Cyborgs and Space. *Astronautics*, September. Reprinted in Gray, 1995.
- Davis-Floyd, Robbie and Joseph Dumit (eds) (1998) *Cyborg Babies: From Techno-Sex to Techno-Tots*. Routledge: New York and London.
- Downey, Gary, Dumit, Joe and Williams, Sarah (1995) Cyborg Anthropology. *Cultural Anthropology* 10: 264-269.
- Featherstone, Mike and Burrows, Roger (1995) *Cyberspace, Cyberbodies, Cyberpunk: Cultures of Technological Embodiment*. London: Sage.
- Graham, Elaine (1999) Cyborgs or Goddesses? Becoming divine in a cyberfeminist age. *Information, Communication & Society*. Vol. 2(4), pp. 419 - 438
- Gray, Chris Hables (ed.) (1995) *The Cyborg Handbook* London and New York Routledge.
- Haraway, Donna (1991) A Manifesto for Cyborgs: Science, Technology, and Socialist-Feminism in the Late Twentieth Century. Chapter 8 in *Simians, cyborgs, and women: the reinvention of nature*. New York: Routledge. (Originally published in the *Socialist Review* (1985) 80: 65-108)

- Hayles, N. Katherine (1999) The Materiality of Informatics. Chapter 8 in *How we became posthuman: virtual bodies in cybernetics, literature, and informatics*. Chicago, Ill.: University of Chicago Press.
- Ihde, Don (2001) *Bodies in Technology*. Minneapolis: Minnesota University Press.
- Jain, Sarah (1999) The Prosthetic Imagination: Enabling and Disabling the Prosthesis Trope. *Science, Technology and Human Values* 24: 31-54.
- Kirkup, Gill (2000) *The gendered cyborg: a reader*. London & New York: Routledge in association with the Open University.
- Kurzman, Steven (2001) Presence and Prosthesis: A response to Nelson and Wright. *Cultural Anthropology* 16: 374-387.
- Lykke, Nina and Braidotti, Rosi (eds.) (1996) *Between Monsters, Goddesses and Cyborgs*. London and New Jersey: Zed Books.
- Michael, Mike (2000) These Boot are Made for Walking: Mundane technology, the body, and human-environment relations. *Body and Society* 6: 107-126.
- Nelson, Diane (2001) Phantom Limbs and Invisible Hands: Bodies, prosthetics and late capitalist identifications. *Cultural Anthropology* 16: 303-313.
- Piercy, Marge (1993) *He, She and It*. New York: Faucett.
- Stone, Allucquère Rosanne (1995) *The war of desire and technology at the close of the mechanical age*. Cambridge, Mass.: MIT Press.
- Sundén, Jenny (2001) What Happened to Difference in Cyberspace? The (Re)turn of the She-Cyborg. *Feminist Media Studies* Volume 1, Number 2, pp. 215-232.
- Wright, Melissa (2001) Desire and the Prosthetics of Supervision: A Case of Maquiladora Flexibility. *Cultural Anthropology* 16: 354-373.

**Week 10, Tues April 14, Thurs April 16    *Ubiquitous, mobile and ambient Computing***

**Required readings**

- Bull, Michael (2001) The World According to Sound: Investigating the world of Walkman users. *New Media & Society* 3: 179-197.
- Viseu, Ana (2003) Simulation and augmentation: Issues of wearable computers. *Ethics and Information Technology* 5: 17-26.

**Additional sources**

- Barfield, Woodrow and Caudell, Thomas (2000) *Fundamentals of wearable computers and augmented reality*. Mahwah, N.J.: Lawrence Erlbaum Associates.
- Brown, B., Green, N. and Harper, R. (2002) *Wireless world: social and interactional aspects of the mobile age*. London: Springer-verlag.
- Bull, Michael (2001) The World According to Sound: Investigating the world of Walkman users. *New Media & Society* 3: 179-197.

- Green, Nicola (2002) On the Move: Technology, mobility, and the mediation of social time and space. *The Information Society* 18 (4): 281-292.
- Humphreys, Lee (2005) Cellphones in public: social interactions in a wireless era. *New Media & Society* Vol 7, Issue 6: 810-833.
- Ito, Mimi, Okabe, Daisuke and Matsuda, Misa (2005) *Personal, Portable, Pedestrian: Mobile phones in Japanese life*. Cambridge, MA: MIT Press.
- Mann, Steve and Niedzviecki, Hal (2001) *Cyborg: Digital destiny and human possibility in the age of the wearable computer*. Doubleday Canada.
- Sheller, Mimi and Urry, John (2003) Mobile Transformations of 'Public' and 'Private' Life. *Theory, Culture & Society*. Vol 20 (3), pp. 107-125.

See also the journals *Personal and Ubiquitous Computing* and *Pervasive and Mobile Computing*

**Week 11, Thurs April 23**                      ***Digital identity integrity (Guest lecture Andrew Clement)***

[NOTE: no class Tues April 21]

No Readings: Prep for project presentations

Additional sources

**Week 12, Tues April 28, Thurs April 30**    ***Project presentations***

**Week 13, Tues May 5, Thurs May 7** ***Computing and social movements/ Geeks and hactivists***

Required readings

- Ross, Andrew (1990) Hacking Away at the Counterculture. In C. Penley & A. Ross (eds.), *Technoculture* pp. 107-134. Minnesota: University of Minnesota Press.
- Kelty, Christopher (2008) *Two Bits: The cultural significance of free software*. Durham and London: Duke University Press, Introduction pp. 1-23; Chapter 2 pp. 64-94

Supplementary readings:

- Atton, Chris (2004) *An Alternative Internet: Radical Media, Politics and Creativity*. Edinburgh: Edinburgh University Press.
- Callon, Michel (1999) The Role of Lay People in the Production and Dissemination of Scientific Knowledge. *Science, Technology & Society* 4(1): 81-94.
- Coleman, Gabriella (2004) The political agnosticism of Free and Open Source Software and the inadvertent politics of contrast. *Anthropological Quarterly* 77: 507-519.
- Hess, David, Breyman, Steve, Campbell, Nancy, and Martin, Brian (2007) Science, Technology, and Social Movements. In Hackett et al (Eds.) *Handbook of Science and Technology Studies*, Third Edition. Cambridge, MA: MIT Press, pp. 473-98.
- Kahn, R. and Kellner, D. (2005). Oppositional politics and the Internet: A critical/reconstructive approach. *Cultural Politics*, 1(1), 75-100.

- Meikle, Graham (2002) *Future Active: Media Activism and the Internet*. New York and London: Routledge
- Pfaffenberger, Brian (1989) The social meaning of the personal computer: or, why the personal computer revolution was no revolution. *Anthropological Quarterly* 61: 39-47.
- Schleiner, Anne-Marie (1999) Parasitic Interventions: Game Patches and Hacker Art. Online: [www.opensorcery.net/patch.html](http://www.opensorcery.net/patch.html)
- Turkle, Sherry (2005) Hackers : loving the machine for itself. In *The Second Self : Computers and the human spirit*. 20th anniversary ed. Cambridge, MA: MIT Press.
- Turner, Fred (2007) *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*. Chicago: University of Chicago Press.
- Ullman, Ellen (1996) *Close to the Machine: Technophilia and its discontents*. San Francisco: City Lights.

**Week 14, Tues May 12, Thurs May 14 Sociomaterial re(con)figurations**

**Required readings**

- Schull, Natasha (2005) Digital gambling: The coincidence of desire and design. *The ANNALS of the American Academy of Political and Social Science* 597: 65-81.
- Suchman, Lucy (2007) Reconfigurations. Chapters 14-15 in *Human-Machine Reconfigurations*. New York: Cambridge, pp. 259-286.

**Additional sources:**

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