

# Technology & Gender

INFO I-590 • Spring 2017

In this seminar we will explore the literature on the history of gender and technology, with a particular focus on information technology. From the "computer girls" of the early 20th century to the hyper-masculine culture of contemporary computing, ideas about gender have reflected and transformed our understanding of sexuality and gender. Our goal in this seminar is to survey the best of the emerging literature on gender and computing, with an eye towards the practical application of gender theory into your future research projects.

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## Course Schedule

In addition to doing the required readings and preparing for discussions, you will be responsible for writing a short (1-2 pg) reading response paper each week.

The supplementary readings and extended bibliography are meant to make you aware of the larger literature, and to provide a guide for those of you who need further preparation for your qualifying exams or dissertation research.

A note on books: all of the articles listed below will be made available electronically. The books you are responsible for borrowing, purchasing, or otherwise acquiring. I did not order them via the bookstore, as in most cases you can find better bargains elsewhere.

### I January 11

Sherry Turkle. 1984a. "Hackers: Loving the Machine for Itself." In *The Second Self: Computers and the Human Spirit*

#### *Supplemental Readings*

The chapter on amateur radio operators in Douglas (1987) provides a fascinating complement to the Turkle chapter on hackers that describes a similar phenomenon without reference to the uniquely immersive characteristics of electronic digital computers.

### II January 18

Joan W Scott. 1986. "Gender: A Useful Category of Historical Analysis." *The American Historical Review*; R S Cowan. 1976. "The 'Industrial Revolution' in the Home: Household Technology and Social Change in the 20th century." *Technology and Culture*; R. Oldenziel. 1997. "Boys and their toys: The Fisher Body Craftsman's Guild, 1930-1968, and the making of a male technical domain." *Technology and Culture*

#### *Supplemental Readings*

For further development of her argument on the (lack of) industrialization in female domestic work, see Ruth Schwartz Cowan (1983). Lerman, Mohun, and Oldenziel (1997) provides an introduction to their influential special issue of *Technology & Culture* on women and technology in which the Oldenziel article above first appeared.

### III January 25

Francesca Bray. 2007. "Gender and Technology." *Annual Review of Anthropology*; Tine Kleif and Wendy Faulkner. 2003. "'I'm No Athlete [but] I Can Make This Thing Dance!' Men's Pleasures in Technology." *Science, Technology & Human Values*; Claude S. Fischer. 1988. "Gender and the Residential Telephone, 1890-1940: Technologies of Sociability." *Sociological Forum*

#### *Supplemental Readings*

Wajcman (2000) provides a complementary overview of the historiography on technology and gender. Bray (1997) is Francesca Bray's history of women and work in late Imperial China. Florman (1996) explores male pleasure in engineering, and Pirsig (1974) is a literary/philosophical take on the same subject that has become something of a hacker bible. Ullman (1997) shows that taking pleasure in technology is not an exclusively male domain.

### IV February 1

Ruth Oldenziel. 1999. *Making Technology Masculine: Men, Women and Modern Machines in America, 1870-1945*. Amsterdam: Amsterdam University Press

#### *Supplemental Readings*

Rossiter (1982) explores the history of women in science, with a particular emphasis on the relationship between professionalization and masculinization. Tichi (1987) provides a cultural and literary history of the

engineer as a male hero. Hacker (1989) explores the links between feminism, co-operatism and technology. Maines (1999) is a classic history of the vibrator.

## **V February 8**

Sharon Hartman Strom. 1992. *Beyond the typewriter : gender, class, and the origins of modern American office work, 1900-1930*. University of Illinois Press

### *Supplemental Readings*

Davies (1982) focuses on the typewriter as a gendered technology. Milkman (1987) argues that women do not replace men during war; new and gendered positions are created for them. Benson (1987) describes women's work in retail. Tone (2001) is a history of birth control, and includes a section on female entrepreneurs in this technology.

## **VI February 15**

Marie Hicks. 2016. *Programmed Inequality: How Britain Discarded Women Technologists and Lost Its Edge in Computing*. MIT Press

### *Supplemental Readings*

Both Ensmenger (2010b) and Abbate (2012) cover the analogous story of the development of computer programming in the United States during this period. Agar (2003), while not explicitly about gender, provides the context for the turn towards "machinic" thinking in the British Civil Service. Edwards (1990) is a pioneering work on the gendering of computer programming, and Light (1999) traces the erasure of the ENIAC women from the history of computing.

## **VII February 22**

Lisa Nakamura. 2014. "Indigenous Circuits: Navajo Women and the Racialization of Early Electronic Manufacture." *American Quarterly*; Nathan Ensmenger. 2010a. "Making Programming Masculine." In *Gender Codes: Why Women are Leaving Computing*; Donna Haraway. 1991. "Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century." In *Simians, cyborgs, and women: the reinvention of nature*; Alan Bernstein et al. 1980. "Silicon Valley: Paradise or Paradox." In *Mexican Women in the United States*

### *Supplemental Readings*

For other accounts of the roles that women played in the early computer industry, see Shetterly (2016), Grier (2005), and Goyal (1996).

## **VIII March 1**

*Hackers: Heroes of the Computer Revolution*. n.d. (selected excerpts); Ron Eglash. 2002. "Race, Sex, and Nerds: From Black Geeks to Asian American Hipsters." *Social Text* V A Lagesen. 2008. "A cyberfeminist utopia? Perceptions of gender and computer science among Malaysian women computer science students and faculty." *Science, Technology & Human Values*; Nathan Ensmenger. 2015. "'Beards, Sandals, and Other Signs of Rugged Individualism': Masculine Culture within the Computing Professions." *Osiris*

### *Supplemental Readings*

Kidder (1981) was awarded the Pulitzer Prize for its gripping tale of computer engineers as Wild West heroes. Kocurek (2015) provides the larger context for understanding masculinity and video games. Losse (2012) updates these narratives for the Facebook era. If you have trouble understanding Haraway, read Gibson (1995), which covers some of the same territory in the form cyberpunk science fiction. In fact, read the Gibson anyway. It is beautiful, insightful, and powerfully influential in its own right.

## **IX March 8**

N. Katherine Hayles. 2008. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. University of Chicago Press

### *Supplemental Readings*

For more on the relationship between embodiment and virtuality, see Stone (1996) and Balsamo (1996). For an overview of the history of cybernetics and its relationship to contemporary information technology, see Kline (2015). For an interesting foreshadowing of our section on queer computing, E. A. Wilson (2009) explores

the “confluence of sexual and intellectual matters” that swirled around the tragic genius Walter Pitts, one of the key members of the early Cybernetics group. And in case you were not intrigued enough by last week’s discussion to read Gibson’s *Neuromancer*, read it now.

## **X March 22**

C J Pascoe. 2011. *Dude, You’re a Fag*. Univ of California Press

### *Supplemental Readings*

For a more general history of American masculinity, see Rotundo (1994). Mellström (2004) focuses more specifically on the role of technology in shaping masculine norms, and Burrill (2008) even more specifically on the performance of masculinity in video game culture.

## **XI March 29**

Carol Cohn. 1993. “War, Wimps and Women: Talking Gender and Thinking War.” In *Gendering War Talk*; Dawn Nafus. 2012. “Patches don’t have gender’: What is not open in open source software.” *New Media and Society*; Alison Adam. 2003. “Hacking into Hacking: Gender and the Hacker Phenomenon.” *ACM SIGCAS Computers and Society*; Dale Beran. 2017. *4chan: The Skeleton Key to the Rise of Trump*

### *Supplemental Readings*

For a brief history of games in the contest of military defense intellectuals, see Ghamari-Tabrizi (2000) and Light (2008). Mead (2013) explores the use of video games as a recruitment, training, and therapeutic tool within the United States military.

## **XII April 5**

Justine Cassell and Henry Jenkins. 2000. *From Barbie to Mortal Kombat*. MIT Press

### *Supplemental Readings*

Salter and Blodgett (2012) discusses the “hypermasculine” practices of video game culture. Bardzell (2010) outlines a feminist approach to computer interface design. Varney (2002) explores the history of masculine toys for boys.

## **XIII April 12**

Yasmin B Kafai. 2008. *Beyond Barbie and Mortal Kombat*. Mit Press

### *Supplemental Readings*

Shaw (2015) argues that gamers necessarily experience the intersection of race, gender, and sexuality. Kocurek (2015) situates video game culture in the larger history of video game arcades.

## **XIV April 19**

Jacob Gaboury. 2015. “On Uncomputable Numbers: The Origins of a Queer Computing.” *Journal of the New Media Caucus*; Laine Nooney. 2013. “A Pedestal, A Table, A Love Letter: Archaeologies of Gender in Videogame History.” *Game Studies*; W Wu et al. 2007. “Beyond Virtual Carnival and Masquerade: In-Game Marriage on the Chinese Internet.” *Games and Culture*; Gray (2014)

### *Supplemental Readings*

Ruberg and Shaw (2017) is an anthology of essays on queer game studies.

## **XV April 26**

TBD.

What follows is a list of relevant resources related to gender and computing. It includes the full citation information for all of the readings listed in the syllabus above, but also many supplemental materials.

In addition, you might find useful the list of women and gender non-conforming people writing about technology found at <https://goo.gl/m6J2dm>.

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