

THEME 2: COMPUTERS AND INFORMATION TECHNOLOGIES

How have computers and information technologies changed the ways we think about ourselves?

What IS a computer?

Our Machines, Ourselves: Computers, Subjectivity, Politics

Edwards, Paul N. 1990. The Army and the Microworld: Computers and the Politics of Gender Identity. *Signs* 16(1): (pp. 102-127).

In this article, from 1990, Edwards links the cultural construction of masculinity, computer science, and militarism in the U.S. We want to think about HOW he builds this argument.

What does Edwards mean when he says "computers are a medium for thought" (p. 105)?

*Now, WHY has computing become a male world, according to Edwards?
What does GENDER have to do with it?*

SEX/GENDER/TECHNOLOGY

Turkle's *hard mastery* versus *soft mastery* (rule bound programming vs. impressionistic)

What has the role of the U.S. military been in the ways people think about computers (this is the closed world argument)? Edwards says there have been ideological and practical links. What does he mean? (pp. 112-113).

So, if, as Edwards, says, "There is nothing inherently masculine about computing technology" (p. 125), *how have historical associations between men and computers been solidified and enforced?*

What do you think has changed since Edwards wrote this article?

Forsythe, Diana E. 2001. Engineering Knowledge: The Construction of Knowledge in Artificial Intelligence. In *Studying Those Who Study Us: An Anthropologist in the World of Artificial Intelligence*. Stanford: Stanford University Press, (pp. 35-58).

Diana Forsythe was an anthropologist of science who worked in industrial and academic AI labs.

This article is based on fieldwork she conducted among people building expert systems, computer programs that are supposed to encode expert knowledge and channel it into programmed procedures — algorithms — that can be used to

substitute for the decision-making of a human expert. These were popular projects in the 1970s and 1980s and to some extent into the 1990s. (for medical diagnosis, mineral prospecting, etc.)

What is knowledge for the people Forsythe worked with?

Knowledge is reified, formalized, codified, equated with simple information (not in need of interpretation) ("information transfer" [p. 459])

What are some problems with this for Forsythe?

What does she mean by 'deletion' of the social?

What is the technical effect on expert systems of knowledge engineers' notions of knowledge?

What are the political ramifications of their view of knowledge?

What positions on 'objectivity' do you think Forsythe and her informants would take?

What do you think the role of computer as a technology and a medium is here? Can you make connections to Edwards?

Film excerpt: *2001*

Pfaffenberger, Bryan. 1988. The Social Meaning of the Personal Computer: Or, Why the Personal Computer Revolution Was No Revolution. *Anthropological Quarterly* 61(1): (pp. 39-47).

WHY was the personal computer revolution NO revolution?

The move from CENTRALIZED COMPUTING to PERSONAL COMPUTING

What does Pfaffenberger mean by Technology's Double Life?

Film excerpt: *AI*