STS.464 :: The Intellectual History of Technology

The Context of Classical and Early Modern Philosophy

8 February 2005

Today in class

1. logistics, class list, &c.
2. writing assignments: discussion of what's expected, reading two examples together to guide the discussion
3. further discussion of reading
4. return to *White Noise*
5. preview of next week

The central question of this class

The history of Western culture is affected and conditioned by the emergence of forces which called forth the word "technology." What is it that happened to human behavior that nevessitated this word?

Some background on the study of "technology"

The term "technology" was first used by Jacob Bigelow (mid-1800s). Bigelow coined the term to refer to the study of and treatises on the mechanic arts: the knowledge and literature on the study of the mechanic arts. This is obviously quite different than the modern sense of the word. "Technology" doesn't really gain currency until around WWII.

The history of the word is not the same as the history of the concept; this course is a joint inquiry into this question.

The social constructivist movement: emphasized that knowledge is socially constructed, not just "discovered"

Bacon: knowledge provides the means for human domination of reality, the world

The human *relationship to nature* is the thing that really shifts.

Readings

Ethical underpinnings (*e.g.* the ancients), gendered dialogue (*e.g.* Bacon)

Hierarchies of knowledge: Bacon (Scharff & Dusek, pp. 26-27), Plato, Aristotle (Scharff & Dusek, p.19)

Aristotle:

1. understanding

2. intelligence
3. scientific knowledge
4. craft knowledge (production not action)

⟶ Between Aristotle and Bacon, we see something of a reversal of these hierarchies.

Where is "technology" in Plato & Aristotle?

- *techne, logos,* craft knowledge
- mathematics
- the dialectic ⟶ the method of finding knowledge
- pathways to betterment (though not material)

A bit on technological determinism

technological determinism: the idea that technology drives history

Raises some problems/quesions...

- Why does technology evolve?
- What are the dymanics of technological change?
- Is there a particular direction, evolution, or goal? The idea of "progress"
- What is the impetus of technological change?
- Who or what causes/drives change?
- Question of historical agency...
- Is the question of *technological change* different from *change*?

Technological determinism is something of a forbidden through in the history of technology. It is illogical, as it ascribes agency to technology (rather than to humans), and it is immoral, as it consequently abdicates responsibility. It takes agency away from humans and ascribes it to machines which were created by humans.

HOWEVER: People often *feel* this way, like technology is running their lives. This feeling in and of itself is important to consider.

⟶ Issue of entrapment, of power: is technology deterministic for those who do not have a hand in creating it?
⟶ Is the abstraction what makes it deterministic/impenetrable?
⟶ Just because humans create something, does it mean that humans have control over it? (Passage from *White Noise*, for instance...)

Next week

The Enlightenment and the Belief in Progress

Readings from Henry Adams, Kant, Comte, and Rousseau

The Education of Henry Adams: a book about the effect of technology on him and his world.

- lifetime of learning about change
- acceleration of the rate of change
- 3 locations $\longrightarrow$ 3 ways of being in the world
- fundamental irony around the word "failure" $\longrightarrow$ he was a most successful man, so why did he consider his "education" to be a failure?
- caught up in American imperialism
- "the law of unforeseen consequences"
- 20 years are missing in the middle: his marriage, his wife's suicide