

THEME 3: TECHNOLOGICAL INFRASTRUCTURE AND SOCIAL FORMS

We're continuing our discussion of INFRASTRUCTURE by looking today at the creation of the Internet as a backbone for computer communication — which as the Stephenson "Hacker Tourist" piece shows you actually involves getting wires under the sea. Computers are linked to one another with cables, wires, and signals. We're talking here about the **construction** of networks, not just their mapping.

We want to think about infrastructures that allow us to navigate cyberspace. Puzzling through infrastructure will help with your **papers**.

Internet Infrastructure

Edwards, Paul. 1998. Y2K: Millennial Reflections on Computers as Infrastructure. *History & Technology* 15: 7-29.

Does anyone remember Y2K?

"Computers have become, as it were, the infrastructure of our infrastructures"

Edwards reaches back to the history of lighting

"Not itself a computer network, but a network of networks, the Internet connects a vast variety of local and wide-area computer networks"

Edwards offers us this scheme:

SYSTEMS	NETWORKS	INTERNETWORKS
one or several functions	large number of functions	near-infinite # of functions
System builders (visionaries)	Network builders	Protocol builders
(interconversion techniques)		(standard interconversions)
Heterogeneous components	Heterogeneous systems	Heterogeneous networks subsystems
Central control	Partially distributed control	Widely distributed control
readily identifiable boundaries	shifting boundaries	continuous extension
Slow to moderate change	Potentially rapid change	Constant flux

Film excerpts from *DR. STRANGELOVE, WAR GAMES*

So, what IS the relationship between TECHNOLOGY and CULTURE? A REVIEW

Mixture of MAGIC, SCIENCE, AND RELIGION
 Technology embedded in ECONOMIC SYSTEMS:

MARX on COMMODITY FETISHISM and CAPITALISM: *The Matrix*
PETRYNA on STATE SOCIALISM
BIOPOWER: the power of classification
LANGUAGE and METAPHOR shapes our understandings of scientific and technological
objects: MARTIN, EDWARDS, FORSYTHE, HELMREICH (gender, race)
HETEROGENEOUS ENGINEERING and UNINTENDED CONSEQUENCES
Pfaffenberger, synthesizer, rap, DJing, Aramis.

INFRASTRUCTURE involves ALL of these.

So, what is the INFRASTRUCTURE that you'll imagine?