InfoCulture:

Theory and Methods in the History and Sociology of Information Technology

Technologies of information processing, communication, and control are among the basic foundations of the modern sociotechnical order. This seminar explores how historical and sociological theory and methods can illuminate the origins, technical evolution, and sociocultural contexts of these most fundamental technologies.

The course will explore theories of technological change, ranging from technological determinism (new technologies cause social change) to social constructivism (groups and organizations choose the uses and meanings of new technologies). At the same time, we will examine the methods used by historians and sociologists, and discuss how they apply to problems faced on an everyday basis by information professionals. These methods include comparative history, ethnographic studies of designers and users, large-scale historical sociology, and case studies of information handling in organizations.

Course readings will cover a number of different information technologies, including books, libraries, large information-intensive organizations, computers, classification systems, the Internet, and military command-control systems.

Prerequisites: SI 504 (may be taken concurrently)

Requirements for all students:

• At least one in-class presentation of course readings.

• Group project, resulting in a presentation on February 18.

Additional requirements for 648 students:

• A 2000–3000 word essay describing and evaluating historical and/or sociological theories of technological change. Due in class February 4th.

• A 2500–3500 word essay on a topic of your choice using theories and/or methods from the course. Students should discuss their topics with me before beginning. A full-length, high-quality draft of this paper is due in class March 25th. It will be
returned the following week, with comments and suggestions for revisions. The final version — fully revised and proofread — is due at the last class meeting on April 15th.

• A brief (10 minute) presentation of the final project, at the last class meeting on April 15th.

Additional requirements for 748 (doctoral) students:

• A 2500–3500 word literature-review essay, discussing the major existing scholarship in the area you will write about in your final project. Due in class March 11th.

• A 4500–6000 word (18–24 pp.) term research paper (or equivalent in other media). The term project assignment has three parts:
  (a) A 400–500 word prospectus, clearly describing your topic and listing sources you will use. Due in class January 28th.
  (b) A full-length, high-quality draft is due in class March 25th. It will be returned the following week, with comments and suggestions for revisions.
  (c) The final version, edited, revised, and proofread, is due April 22nd.

• A 20 minute class presentation on the subject of your final research project, at the last class meeting on April 15th.

Extension policy: no extensions, no kidding.

Required Texts:


Articles (all available online at the Coursetools site)

Course Web site:
https://coursetools.ummu.umich.edu/2003/winter/si/648/001.nsf

Instructor:

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Office hours, Winter 2003:
At 301D West Hall (School of Information): Tu 11–12 AM
At 104 Tyler, East Quad (Residential College): Weds 2:35–3:30 PM
Or by appointment

Course Schedule

• All readings other than the books listed above are available for download on the Coursetools website, or via the URLs given below. These are copyrighted materials offered for your personal use as a student. Redistribution in any form is crass, not to mention illegal, behavior.

January 7: Introduction: Technological Determinism


Recommended: "How to Read a Book,"
http://www.si.umich.edu/~pne/PDF/howtoread.pdf

— Assignment guidelines distributed —

January 14: Social Constructivism and Path Dependence


January 21: **Sociological vs. Historical Explanation: IT in Banks**

**Reading:**

http://www.ifi.uio.no/~oleha/Publications/bok.html

January 28: **Diffusion Process Theory and Actor–Network Theory**

**Reading:**

— 748: prospectus due for final project —

February 4: **Information Regimes from Papyrus to the Internet**

**Reading:**
- O'Donnell, *Avatars of the Word* (entire book). This is a rich text that deserves to be read slowly and carefully, allowing time for reflection.
Re-read: Grübler, "Time for a Change: On the Patterns of Diffusion of Innovation."

— 648: first paper due —

February 11: Historiography of Computers


Recommended: Edwards, The Closed World, Chapters 6, 8, 10, Epilogue.

February 18: Group project presentations

March 4: The Life of Information in Time

Reading: Star and Bowker, Sorting Things Out, pp. 1–162
March 11: **Classification Systems and Work Life**

**Reading**: Star and Bowker, *Sorting Things Out*, pp. 227–326

**Re–read**: Jackson et al., "The Social Construction of Technology in Studies of the Workplace."

**Recommended**: Star and Bowker, *Sorting Things Out*, pp. 163–226

— 748: Literature review essay due —

March 18: **Information and Risk in a Large Organization (I)**


March 25: **Information and Risk in a Large Organization (II)**

**Reading**: Vaughan, *The Challenger Launch Decision*, Chapters 7–10, Appendix A

**Re–read**: Robey and Boudreau. "Accounting for the Contradictory Organizational Consequences of Information Technology: Theoretical Directions and Methodological Implications"

— 648 & 748: Full-length, high-quality draft of final project due in class —

April 1: **Integrating History, Sociology, and Economics: The Informational Economy**

**Reading**: Castells, *The Internet Galaxy*, entire book EXCEPT chapters 6–7


**Re–read**: Rogers, "New Product Adoption and Diffusion"


April 8: **The Internet and/as Culture**

**Reading**: Dreyfus, *On the Internet*

April 15: **Conclusion and Research Presentations**

— 648 & 748: final paper due —

— **NO LATE PAPERS OR PROJECTS** —