



## Course Syllabus

### *Instructor Information*

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Instructor: Sarah A. Bell, PhD  
[contact info removed for web]

### *Course Description and Objectives*

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This groundwork seminar will help prepare students to investigate aspects of (digital) technologies relevant to their individual research projects. You will be introduced to several different theoretical perspectives that are commonly used to study technologies in the humanistic disciplines. In order to understand some of the key underpinnings of computational technologies themselves, we will focus on one class of technologies – writing and inscription technologies – and follow them historically from earliest development to today’s ‘automatic’ systems. This historical exploration provides us with the opportunity to understand both the social and technical stakes in the development of information and communication technologies, and the various theoretical perspectives that have developed to make sense of them.

At the conclusion of the course, students should be able to construct a comprehensive bibliography of sources relevant to the study of a technology of their choice, identify the theoretical perspective of each source and the tradition of which it is a part, and begin to place their own theoretical and methodological commitments within an ongoing scholarly conversation about the chosen technology.

### *Course Materials and Resources*

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[See the course schedule for readings.]

#### **Assignments**

There will be at least a couple of options for the cumulative assignment, such as a literature review about a technology of your choice, a traditional researched argument, or a mock exam question. An annotated bibliography for your project will be due in late March so that I can help make sure that you are on the right track.

Additionally, **you will complete EIGHT short (one page, single spaced) reading response papers.** Your response should NOT summarize the reading, but rather make connections, pose questions, etc. It is up to you for which weeks you write responses. You will upload your responses to a Google drive folder set up for that week so that everyone in the class can read them. They should be uploaded BEFORE class.

## University Policies

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### Course Schedule\* subject to change

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<b>Date of class meeting</b> Technology under discussion / Theoretical perspective under discussion
<b>Week 1: January 10</b> What is technology?
Since this is week 1, you are not expected to read these pieces, but my course introduction will be based on the following: <ul style="list-style-type: none"><li>• Schatzberg, chapter 1</li><li>• Smith, "Technological Determinism in American Culture"</li><li>• Peters, "On Technological Determinism"</li><li>• Schwab, "The Fourth Industrial Revolution"</li></ul>
<b>Week 2: January 17</b> How and why did writing develop? / Toronto school (media ecology)
<ul style="list-style-type: none"><li>• Watch NOVA A-Z, episode 1</li><li>• Schmandt-Besserat, selection from <i>How Writing Came About</i></li><li>• Ong, chs 3 and 4 from <i>Orality and Literacy</i></li></ul> Also recommended: <ul style="list-style-type: none"><li>• Comor, "Harold Innis and the Bias of Communication"</li></ul>
<b>Week 3: January 24</b> Writing as/and technology (techne) / Rhetorical tradition
<ul style="list-style-type: none"><li>• Schatzberg, selection from <i>Technology: Critical History of a Concept</i></li><li>• Plato, <i>Phaedrus</i></li><li>• Lui, "Writing"</li></ul>
<b>Week 4: January 31</b> Paper and the printing press / Determinism (and constructivism)
<ul style="list-style-type: none"><li>• Watch NOVA A-Z, episode 2</li><li>• Eisenstein, selection from <i>The Printing Revolution in Early Modern Europe</i></li><li>• Stallybrass, "Printing and the Manuscript Revolution" (111-118)</li></ul>
<b>Week 5: February 7</b> Why is 'data' a thing?
<ul style="list-style-type: none"><li>• Hacking, selections from <i>The Taming of Chance</i></li></ul>
<b>Week 6: February 14</b> 19 <sup>th</sup> c. inscription technologies / Media theory
<ul style="list-style-type: none"><li>• Gitelman, <i>Scripts, Grooves, and Writing Machines</i></li></ul> Also recommended: <ul style="list-style-type: none"><li>• Benjamin, "The Work of Art in the Age of Mechanical Reproduction"</li><li>• Carey, "Technology and Ideology: The Case of the Telegraph" (155-177)</li><li>• Sterne, "Format Theory"</li></ul>

**Week 7: February 21** Cybernetics / Information theory

- Kline, selection from *The Cybernetics Moment*
- Weaver, "Recent Contributions to the Mathematical Theory of Communication"
- Duguid, "Communication, Computation, and Information"

Also recommended:

- Wiener, *The Human Use of Human Beings*
- Galison, "The Ontology of the Enemy: Norbert Wiener and the Cybernetic Vision" (228-266)
- Geoghegan, "Architectures of Information: A Comparison of Wiener's and Shannon's Theories of Information"
- watch *Art of the Problem: Information Theory* (series on YouTube)

**Week 8: February 28** Computing and artificial intelligence / Continental philosophy

- Riskin, selection from *The Restless Clock*
- Turing, "Computing Machinery and Intelligence" (433-460)
- Heidegger, "The Question Concerning Technology" (1-23)
- Marcuse, "New Forms of Control" (34-42)

Also recommended:

- watch *The Information Machine* (9:40)
- watch *Art of the Problem: Computer Science* (series on YouTube)
- Hayles, "Liberal Subjectivity Imperiled" (84-112)
- Ihde, "Can Continental Philosophy Deal..."

**March 4-12 SPRING BREAK** NO CLASS on March 7, enjoy the break!

**Week 9: March 14** Word processing / Social construction

- Haas, selection from *Writing Technology*
- Kirschenbaum, Introduction to *Track Changes*
- Pinch and Bijker, "The Social Construction of Facts and Artifacts"
- Oudshorn and Pinch, "How Users Matter"

Also recommended:

- Pinch, "The Social Construction of Technology: A Review"
- Wyatt, "Non-Users Also Matter"
- Eglash, "Appropriating Technology: An Introduction"

**Week 10: March 21** **\*\*Special Guest, Dr. James Hammond\*\***

- Readings from Dr. Hammond (anti-racist, anti-ableist, non-western perspectives) TBD

**Week 11: March 28** Keyboarding in other languages / Anti-racist, anti-ableist, non-western perspectives

- Mullaney, selection from *The Chinese Typewriter*
- Winner, "Do Artefacts have Politics?"
- Benjamin, "Innovating inequity"
- Jain, "The Prosthetic Imagination"

Also recommended:

- Hamraie and Fritsch, "Crip Technoscience Manifesto"

- Geoghegan, "Orientalism and Informatics"
- Russell and Vinsel, "After Innovation, Turn to Maintenance"

**Week 12: April 4** Interfaces and ubiquitous computing / Media archaeology

- Emerson, selection from *Reading Writing Interfaces*
- Weiser, "The Computer for the 21<sup>st</sup> Century"
- Dourish and Mainwaring, "UbiComp's Colonial Impulse"
- Huhtamo and Parikka, "An Archaeology of Media Archaeology"
- Coopman, "Foucault's Historiographical Expansion: Adding Genealogy to Archaeology"

Also recommended:

- Licklider, "Man-Computer Symbiosis" and "The Computer as a Communication Device"
- Gillespie, "Engineering a Principle: 'End-to-End' in the Design of the Internet" (427-457)
- Kitchin and Dodge, "A Manifesto for Software Studies"

**Week 13: April 11** Robot writing / Algorithmic culture

- Bender, et al. "On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?"
- Gillespie, "The Relevance of Algorithms"
- Dourish, "Algorithms and their Others: Algorithmic Culture in Context"
- Selection of news articles on GPT 3

**Week 14: April 18** How will I know if my students used AI to write their essays?

- Christian, *The Most Human Human*
- Mullaney, "Your Computer is on Fire"
- Dreyfus, "Why Computers May Never Think Like People"

**Final projects due Tuesday, April 25**