

INF 2243H
Critical Histories of Information and Communication Technologies
Winter 2016
Thursday, 6:30-9:30 BL 538
Jan.11- Apr. 8

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DESCRIPTION AND OBJECTIVES

This seminar approaches information and communication technologies from a critical and historical perspective. We will investigate theories of information and technological development, emphasizing the necessity to acknowledge a plurality of approaches (social construction, technological determinism, feminist and postcolonial) and methods (ANT, political economy, cultural studies, new materialism), as well as to address important conceptual reciprocities and exchanges occurring within the field (between information and biology, materiality and culture). Given the rich literature circulating in this area of study, this course is by no means comprehensive. Its main goal is to provide instruments and suggestions leading to further investigations into the study of information and communication technology. Specifically, the readings were chosen to convey a sense of the increasing plurality of this topic and the methodological approaches employed to unravel its complexity. Moreover, particular emphasis lies on the histories, the discourses and the pervasiveness of information and communication technologies.

The course contains 3 sections:

- 1. Approaches** This section introduces key approaches that have shaped and still are crucial in the study of information and communication technologies. Specifically, we will explore the significance of technological determinism and social shaping of technologies, Action Network Theory, material and archaeology of media, the postcolonial approach and the feminist reading of science and technology.
- 2. Entanglements** What is the meaning of information? What do we understand by Online and offline? How do we define the natural and the artificial, the human and the non-human, and based on what principles? This section reflects on those concepts that circulate, enable the circulation across, and bridge the realm of the informational and the domain of the living. In addition, it zooms in the processes of mediation and digitization as filters, enablers, manipulators and creators of information.
- 3. Politics** This section is dedicated to examining how communication and information technologies intersect with the social. Here, politics is intended as convergence of threads and as intersection of forces. We will focus on three specific loci of convergence: Networks, Labor, and Data.

INTENDED LEARNING OUTCOMES

- 1) To become familiar with, and be able to assess a variety of approaches to the study of information and communication theory
- 2) To achieve a nuanced and sophisticated understanding of the “histories” and

- theories” describing and predicting information and communication technology
- 3) To acknowledge and combine a variety of methodological approaches to the study and the history of technology

Assignments

Discussion questions and participation 15% (ongoing).

This course follows a seminar structure. Please, try not to miss classes and come prepared to ask questions in order to get the discussion going. We will use these questions to connect and hold together the readings question their tenets etc.. I trust that a lively discussion will occur in a respectful, thoughtful and mature manner.

Reading Response 25% (scheduled)

A brief, but in-depth presentation of two readings scheduled during two weeks, followed by moderation. The presentation will be accompanied by examples and a written commentary (no more than 1000 words).

Research paper proposal 20% Due on March 10

A written proposal of the topic you wish to explore in your research paper (main thesis, outline, annotated bibliography)

Research paper 40% Due on April 7

A 3000 words essay on a topic pertaining to your research interests and to the course topic

Late Assignments

Please, respect the deadlines. Students will not receive credit for late assignments. In case of emergency, or any other circumstance that may prevent you from reaching the deadlines, please, do contact me as soon as possible and we will try to find reasonable accommodation.

Writing Support

The SGS Office of English Language and Writing Support provides writing support for graduate students. The services target the needs of both native and non- native English speakers and include non-credit courses, single-session workshops, individual writing consultations, and website resources. These services are free.

Academic Integrity

Please consult the University’s website on Academic Integrity at <http://www.utoronto.ca/academicintegrity/>. The University has a zero- tolerance policy on plagiarism as defined in section B.I. 1. (d) of the University’s Code of Behaviour on Academic Matters, located at <http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>. You should acquaint yourself with the Code.

Accessibility Services

If you have a disability or health consideration that may require accommodation, please feel free to approach me and/or the Accessibility Services Office as soon as possible. The Accessibility Services staff is available by appointment to assess specific needs, provide referrals, and arrange appropriate accommodations.

Course Schedule

Note: most readings are available in Blackboard Library Online Course Reserves Page.

Book chapters are available online and on Reserve.

A few readings are on reserve at Innis and Robarts

Week 1	Jan 14 Introduction. What is information? What is communication? Why Histories?
Part 1. Approaches	
Week 2	Jan 21 – do technologies change the world? Merrit Roe Smith. 1994. "Technological Determinism in American Culture." In Merritt Roe Smith and Leo Marx, eds. <i>Does Technology Drive History?</i> 1-36 Cambridge, MA: MIT Press, 1994. [Available in Blackboard Library Online Course Reserves Page] Raymond Williams. 2003. "The Technology and the Society". In <i>Television: Technology and Cultural Form</i> . 9-31. London: Routledge. [e-book, Available in Blackboard Library Online Course Reserves Page] Innis, Harold A. 2007a. "Introduction." In <i>Empire and Communications</i> , edited by Alexander John Watson, 3–11. Toronto Ont.: Dundurn. — . 2007b. "Paper and the Printing Press." In <i>Empire and Communications</i> , edited by Alexander John Watson, 141–70. Toronto Ont.: Dundurn. [e-book, Available in Blackboard Library Online Course Reserves Page]
Week 3	Jan 28 – ANT and material media Kittler, Friedrich. 1999. "Gramophone." In <i>Gramophone, Film, Typewriter</i> , translated by Geoffrey Winthrop-Young and Michael Wutz, First Edition edition, 21–114 (excerpts). Stanford, Calif: Stanford University Press. [Innis & Robarts: P96 .T42 K5813 1999 – Course Reserves - check availability] Latour, Bruno, and Jim Johnson. 1988. "Mixing Humans and Non-Humans: The Sociology of a Door Closer." <i>Social Problems</i> 35: 298–310. [Available in Blackboard Library Online Course Reserves Page] Recommended: Latour, Bruno. 1996. "On Actor-Network Theory: A Few Clarifications." <i>Soziale Welt</i> 47 (4): 369–81. [Available in Blackboard Library Online Course Reserves Page]
Week 4	Feb 4 – postcolonial approaches Eglash, Ron. 2002. "Computation, Complexity and Coding in Native American

	<p>Knowledge Systems.” In <i>Changing the Faces of Mathematics: Perspectives on Indigenous People of North America</i>, edited by Judith Hankes and Jerald Fast. Reston, VA: NCTM. [Available in Blackboard Library Online Course Reserves Page]</p> <p>Philip, Kavita. 2012. “Postcolonial Computing: A Tactical Survey.” <i>Science, Technology, & Human Values</i> 37 (1): 3–29. [Available in Blackboard Library Online Course Reserves Page]</p> <p>Recommended: Bray, Francesca. 1999. “Towards a Critical History of Non-Western Technology.” In <i>China and Historical Capitalism</i>. Studies in Modern Capitalism. Cambridge University Press. [Available in Blackboard Library Online Course Reserves Page]</p> <p>Adas, Michael. 1989. “Global Hegemony and the Rise of Technology as the Main Measure of Human Achievement”. In <i>Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance</i>. 133-198. 1st Reprinted edition. Ithaca, N.Y: Cornell University Press. [e-book, Available in Blackboard Library Online Course Reserves Page]</p>
<p>Week 5</p>	<p>Feb 11 feminist approaches</p> <p>Balsamo, Anne. 2011. “Gendering the Technological Imagination.” In <i>Designing Culture: The Technological Imagination at Work</i>, 27–50. Durham NC: Duke University Press. [e-book, Available in Blackboard Library Online Course Reserves Page]</p> <p>Wajcman, Judy. 1991. “Technology as Masculine Culture.” In <i>Feminism Confronts Technology</i>, 137–67. University Park, PA: Pennsylvania State University Press. [Available in Blackboard Library Online Course Reserves Page]</p> <p>Misa, Thomas J., ed. 2010. “1. Defining the Problem.” In <i>Gender Codes: Why Women Are Leaving Computing</i>, 3–23. Hoboken, N.J. : Piscataway, NJ: Wiley-IEEE Computer Society. [e-book, Available in Blackboard Library Online Course Reserves Page]</p>
<p>Reading Week no class</p>	
<p>Part 2. Entanglements</p>	
<p>Week 6</p>	<p>Feb 25 information and biology</p> <p>Depew, D. 2004. “From Heat Engines to Digital Printouts: Machine Models of the Body from the Victorian Era to the Human Genome Project.” In <i>Memory Bytes: History, Technology, and Digital Culture</i>, edited by L. Rabinovitz and A. Geil. Durham, NC: Duke University Press. [e-book, Available in Blackboard Library Online Course Reserves Page]</p>

	<p>Kay, Lily E. 2000. “1. The genetic code: imaginaries and practices” and “3. Production of discourse: cybernetics, information, life”. In <i>Who Wrote the Book of Life? A History of the Genetic Code</i>. Stanford, Calif.: Stanford University Press. [Available in Blackboard Library Online Course Reserves]</p>
Week 7	<p>Mar 3 Mediation</p> <p>Bolter, J. David, and Richard A. Grusin. 2000. “Immediacy, Hypermediacy and Remediation.” In <i>Remediation: Understanding New Media</i>, 1st edition, 20–50. Cambridge, Mass.: The MIT Press. [e-book, Available in Blackboard Library Online Course Reserves Page]</p> <p>Kember, Sarah, and Joanna Zylińska. 2012. “Mediation and the Vitality of Media.” In <i>Life after New Media: Mediation as a Vital Process</i>, 1–28. Cambridge, MA: MIT Press. [e-book, Available in Blackboard Library Online Course Reserves Page]</p> <p>Recommended: Buckley, Jake. 2011. “Believing in the (Analogico-)Digital.” <i>Culture Machine</i> 12. http://www.culturemachine.net/index.php/cm/article/view/432</p>
Week 8	<p>Mar 10 Human and non-human</p> <p>Parikka, Jussi. 2010. “Insect architecture and swarm”. In <i>Insect Media: An Archaeology of Animals and Technology</i>, 27-56 Minneapolis: University of Minnesota Press. [e-book, Available in Blackboard Library Online Course Reserves Page]</p> <p>Barad, Karen. 2014. “Invertebrate Visions: Diffractions of the Brittlestar.” In <i>The Multispecies Salon</i>, edited by Eben Kirksey, 221-241. Durham: Duke University Press Books. [e-book, Available in Blackboard Library Online Course Reserves Page]</p>
Part 3. Politics	
Week 9	<p>Mar 17 Biopolitics of networks</p> <p>Cheney-Lippold, John. 2011. “A New Algorithmic Identity Soft Biopolitics and the Modulation of Control.” <i>Theory, Culture & Society</i> 28 (6): 164–81. doi:10.1177/0263276411424420. [Available in Blackboard Library Course Reserves Page]</p> <p>Chun, Wendy Hui Kyong. 2011. “Crisis, Crisis, Crisis, or Sovereignty and Networks.” <i>Theory, Culture & Society</i> 28 (6): 91–112. doi:10.1177/0263276411418490. [Available in Blackboard Library Course Reserves Page]</p> <p>Recommended: Rabinow, Paul, and Nikolas Rose. 2006. “Biopower Today.” <i>BioSocieties</i> 1 (2): 195–217. doi:10.1017/S1745855206040014. [Available in Blackboard Library Course Reserves Page]</p>

<p>Week 10</p>	<p>Mar 24 Free Labor, Immaterial Labor, Affective labor</p> <p>Terranova, Tiziana. 2000. "Free Labor Producing Culture For The Digital Economy." <i>Social Text</i> 18 (2): 33–58. doi:10.1215/01642472-18-2_63-33. [Available in Blackboard Library Online Course Reserves Page]</p> <p>Brophy, Enda, and Greig de Peuter. 2015. "Labours of Mobility: Communicative Capitalism and the Smartphone Cybertariat." In <i>Theories of the Mobile Internet: Materialities and Imaginaries</i>, edited by Andrew Herman, Jan Hadlaw, and Thomas Swiss, 60–84. New York: Routledge. [Available in Blackboard Library Course Reserves Page]</p> <p>Jarrett, Kylie. 2014. "The Relevance of 'Women's Work' Social Reproduction and Immaterial Labor in Digital Media." <i>Television & New Media</i> 15 (1): 14–29. doi:10.1177/1527476413487607. [Available in Blackboard Library Course Reserves Page]</p>
<p>Week 11</p>	<p>Mar 31 Beautiful data</p> <p>Halpern, Orit. 2015. "Introduction. Dreams for Our perceptual Present." In <i>Beautiful Data: A History of Vision and Reason since 1945</i>. 9-26. Durham: Duke University Press Books. [e-book, Available in Blackboard Library Online Course Reserves Page]</p> <p>Parks, Lisa. 2013. "Earth Observation and Signal Territories: Studying U.S. Broadcast Infrastructure through Historical Network Maps, Google Earth, and Fieldwork." <i>Canadian Journal of Communication</i> 38 (3): 285-307. [Available in Blackboard Library Online Course Reserves Page]</p> <p>boyd, danah, and Kate Crawford. 2012. "Critical Questions for Big Data." <i>Information, Communication & Society</i> 15 (5): 662–79. doi:10.1080/1369118X.2012.678878. [Available in Blackboard Library Online Course Reserves Page]</p>
<p>Week 12</p>	<p>Apr 7 Philosophy and the digital – recent approaches</p> <p>Munster, Anna. 2006. "Sampling and Folding. The Digital and the Baroque." In <i>Materializing New Media : Embodiment in Information Aesthetics</i>, 25–55. Dartmouth, NH: Dartmouth College Press. [Available in Blackboard Library Online Course Reserves Page]</p> <p>Peters, John Durham. 2015. "God and Google." In <i>The Marvelous Clouds: Toward a Philosophy of Elemental Media</i>, 13–52. Chicago ; London: University Of Chicago Press. 315-376. [Available in Blackboard Library Online Course Reserves Page]</p>