

St. Francis Xavier University
Department of Sociology

**SELECTED TOPICS IN THE SOCIOLOGY OF SCIENCE AND TECHNOLOGY
(SOC 498)**

Fall 2017
Lecture Room: Annex 113
Mondays 8:15am – 9:30am; Thursdays 9:45am – 11:00am

Instructor: Dr. Stephen Marmura
Email: smarmura@stfx.ca
Office Hours: TBA
Office: Annex 111C

Required Texts:

Course Reader: available in bookstore

Informationalism, Networks, and the Network Society: A Theoretical Blueprint
Manuel Castells (2004)

<https://pdfs.semanticscholar.org/a36c/a59348d3a37bc17fe3ac1644fe256a9cf5f8.pdf>

COURSE DESCRIPTION

This course is designed to engage students with a variety of issues and debates pertaining to the sociology of science and technology. Some of these are linked to more traditional lines of social scientific enquiry, while others have arisen within the relatively new field of science and technology studies. We begin by exploring the relationship between technology and social/cultural evolution. This includes attention both to the industrial revolution and its legacy, and to the technologies and social changes most frequently associated with post-industrialism. Attention is then directed to the contested status of science as a unique way of knowing, the social construction of scientific concepts and technological artifacts, the uncertain relationship between scientific knowledge and technological innovation, and questions of human versus non-human agency. The latter part of the course focuses on governance, identity and culture within post-industrial societies; those increasingly dependent on digital technology. We conclude by considering the notion of 'post-humanism' as both a utopian movement and target of social critique.

Please note: This course is designed as a fourth-year seminar and should only be taken by students prepared to attend all classes, actively participate in ongoing discussion, and engage critically with novel and challenging ideas.

COURSE OUTLINE

Part 1: Key Concepts, Theories and Controversies

(Sept. 7) Introduction: course expectations; overview of key issues and debates

(Sept. 11, 14) Technology, social change and the problem of determinism

The Hydraulic Trap
Marvin Harris

Do artifacts have politics?
Langdon Winner

(Sept 18, 21) The Industrial Revolution and its Legacy

The Theory of Crises
Julian Borchardt

The Posthistorical Period and the Technological Environment
Jacques Ellul

(Sept. 25, 28) The meaning of Post-Industrial Society

The Information Society Debate Revisited
Nicholas Garnham

Manuel Castells
(the network society – reflections on your review article)

(Oct. 2, 5) Problematizing Science

Evidence in Science and Religion
Stanley Fish

On Sociology and STS
John Law

Oct. 9 - no class

(Oct. 12) The Social Construction of Scientific Knowledge and Technological artifacts

The Social Construction of Technology: Structural Considerations
Klein and Kleinman

(Oct. 16, 19) Radical Social Constructionism and Actor Network Theory

What's Social about Being Shot?
Grint & Woolgar

Some elements of a sociology of translation: domestication of the scallops and the fishermen of St. Brieuc Bay
Michel Callon

Part 2: Identity, Culture and Power in the Digital Age

(Oct. 23, 26) Communication technology, Identity and Culture

The Mediation of Identity: Key Issues in Historic Perspective
Stephen Marmura

Identity Theft and Media
Mark Poster

(Oct. 30; Nov. 2) Cont.

Algorithmic Culture
Ted Striphas

Remembering me: big data, individual identity, and the psychological necessity of forgetting
Jacquelyn Ann Burkell

(Nov. 6, 9) Science, Technology and Social Control

Datafication, dataism and dataveillance: Big Data between scientific paradigm and ideology
José van Dijck

Quantified sex: a critical analysis of sexual and reproductive self-tracking using apps

Deborah Lupton

Nov. 13 - no class

Nov. 16 *film*

(Nov. 20, 23) Information, Speed and War

Speed, International Security, and “New War” Coverage in Cyberspace
Walsh & Barbara

Visible War: Surveillance, Speed and Information War
Kevin Haggerty

(Nov. 22, 29) A Posthuman World?

Post/Human Conditions
Elaine Graham

Data Made Flesh: Biotechnology and the Discourse of the Posthuman
Eugene Thacker

Evaluation:

Critical Response Papers: 30%

Class Participation: 20%

Critical review: 30%

Student Presentations: 20%

Please see requirement and assignment descriptions below.

COURSE REQUIREMENTS

Class Participation: 20%

Small, seminar-style classes provide students with a unique opportunity to engage in class discussion and reflect in depth upon the course material. To benefit fully from this opportunity, keeping up with course readings and attending classes regularly are essential. Students will be expected to arrive in each class with brief write-ups (i.e. a short paragraph or point-form list) concerning their reflections, thoughts, and questions with respect to the reading(s) for that day. These are for your own reference, to help ensure that you are ready to engage in class discussion, and will not be handed in or graded. They will also aid you by assisting in recall and/or providing a basis from which to develop more formal write-ups in the form of response papers for later submission (see *Critical Response Papers* below).

Please keep in mind that class participation provides the foundation on which other course components rely, and irregular attendance will result in either the partial or complete loss of the participation grade. We will go over this policy in more detail during the first week of class.

Critical Response Papers: (3 X 10) = 30%

Due Date: Oct. (about midway through term)

Students will select any three readings dealt with during the first six-week period of the course for critical evaluation. Responses for each reading should be roughly 2-3 pages in length. They should be bound together and handed in as a unit in class on the due date.

The point of this exercise is to identify a key line of argument or theme in a reading and then subject it to critical appraisal. For example, you may find a line of reasoning or path of investigation advocated by the author to be particularly strong, useful or insightful, or conversely to be highly suspect, flawed, incomplete, or misleading. Either way, you need to make your case in a concise, well reasoned and clearly articulated manner. While your responses should be written in paragraphs, they do not require formal introductions or conclusions. Simply begin with a brief statement identifying the issue(s) in question and then expand. No additional sources need be consulted, although you are free to draw upon insights or arguments raised in other readings and/or during seminar discussions.

For some good tips on writing concise response papers you may wish to visit the following Web site: <http://www.davidhildebrand.org/teaching/tips-hints/paper-how-write-short-critical-response-paper/>. While the guidance provided is for single-page responses, the general recommendations are still useful.

Student Presentations: 20%

Each student will give a presentation of roughly 20 minutes based on a reading from the course. Presentations will begin during and/or after week six (depending on the number of students enrolled) with one presentation per class. How the presentation is approached may depend in part upon the nature of the reading. In many cases the theoretical and/or substantive issues explored within the paper will require all the presenter's attention. In other instances, students may wish to consider a related case study not dealt with in the reading but which relates directly to central ideas discussed within it. We will pursue these points further in class.

Students may present their material however they wish (e.g. through use of overheads, power-point, black board or simply by talking), but must create a short (roughly 2 - 3-page handout) for distribution in class. The latter should include main summary points and highlights pertaining to the most important issues and concepts raised in the reading, and their relevance in relation to exiting trends and/or other issues raised in the course. Be as explicit as you can in this regard and organize your hand-out carefully as it will provide me with a key source of reference and recall when evaluating your presentation. You should also include at least one question designed to generate class discussion. The professor and students will also ask questions of presenters. The idea is that the presentation will provide a starting point and lead-in for more general group discussion on that day.

Critical Review: 30%

Informationalism, Networks, and the Network Society: A Theoretical Blueprint
Manuel Castells (2004)

Due Date: Dec. (last day of class)

Length: 8 – 10 pages

Manuel Castells is widely regarded as one of the most important sociologists concerned with the character of contemporary post-industrial and/or global society, and the role(s) played by computer technology and digital media in

relation to its development. His theorization of the 'network society' as expressed in the essay *Informationalism, Networks, and the Network Society: A Theoretical Blueprint*, is the subject of your critical review.

Approach this assignment as a longer, more formal version of the critical response papers you wrote earlier. Hence, while your review should be written in essay-style format, you should still avoid spending too much time summarizing content. On the one hand, you want to give the reader a general sense of Castells' overall direction and main line of argument. However, to launch an effective critique you must also draw specific attention to what you feel are the most important and/or controversial aspects of his work. You will need to ponder such things as just how original Castells' formulation of the 'network society' is, whether the network society he describes represents a true break from past economic, social or cultural trends, and what if anything in his work stands out when considering the role played by technology and/or science in the world today. What are Castells' most important insights? Is his embrace of both communicative and genetic codes of information within the same paradigm feasible? Are there important blind spots which limit his analysis? etc. At least four academic sources should be cited in your critique. These may include, but are not limited to readings from your course package.