

Binder

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Authors

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Authors

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TEXTBOOK

1. Sismondo, Sergio, (2010) An Introduction to Science and Technology Studies. Wiley Blackwell
2. Schroeder, Ralph. 2018. Social Theory after the Internet. London, UCL Press.
3. Mathewmann, Steve, (2011) Technology and Social Theory Macmillan International Higher Education.

Topic 1: Introduction to the class. Explanation of the syllabus. (Dr. Tapia)

Things To Do

- Form teams. Build Binders. Choose and Install Annotation software.

Topic 2: What is science

Material

- Reading Material available at: [An Introduction to Science and Technology](#)

Resentation & Reading Notes

- [Resentation](#)
- [Reading Notes](#)

Topic 3: What is Theory?

Material

- [Text Book Matthewman](#)
- [what_theory_is_not](#)
- [Comments_on_what_theory_is_not.pdf](#)
- [what_theory_is_not_theorizing_is](#)

Resentation & Reading Notes

- [Reading Notes](#)
- [Presentation](#)

Class notes

- Theory is a process. We are creating the theory. It is a iterative process.
- Theory is not what, it is how. How can this thing happens. It must be active.

Topic 4: Technological Determinism and Functionalism?

Presentation & Reading Notes

- [Reading Notes](#)
- [Presentation](#)

TOPIC 5: Social Construction of Technology

Presentation & Reading Notes

- [Reading Notes](#)
- [Presentation](#)

In Class Notes

Social Construction: The scientific and technological construction of material and social environments.

Heterogeneous Construction: Science Technology build environment, Laboratory Equipment, Established Knowledge, Construct Network and so no .

Construction of Kind:

1. Nominalish

- Kinds are human impositions.
- Socially constructed by people.
- Only individual objects are real.

2. Realist

- Kinds are real features of the world.
- Kinds are external to people.

Some concepts:

1. Symmetry: The *Principle of Symmetry* holds that in explaining the origins of scientific beliefs, that is, assessing the success and failure of models, theories, or experiments, the historian/sociologist should deploy the same *kind* of explanation in the cases of success as in cases of failure. In technology, not the advance technology many be used in the future.
2. Interpretative flexibility: mean that for a single product, different people can view and use it in different way.
3. Relevant social groups: The most basic relevant groups are the *users* and the *producers* of the technological artifact, but most often many subgroups can be delineated – users with different socioeconomic status, competing producers, etc.
4. Design flexibility: Just as technologies have different meanings in different social groups, there are always multiple ways of constructing technologies. A particular design is only a single point in the large field of technical possibilities, reflecting the interpretations of certain relevant groups.
5. Problem and conflicts: The different interpretations often give rise to conflicts between criteria that are hard to resolve technologically (e.g., in the case of the bicycle, one such problem was how a woman could ride the bicycle in a skirt while still adhering to standards of decency),
6. Closure: Over time, as technologies are developed, the interpretative and design flexibility collapse through closure mechanisms.
 - **Rhetorical closure**
 - **Redefinition of the problem**

TOPIC 6: Actor Network Theory

Presentation & Reading Notes

- [Reading Notes](#)
- [Presentation](#)

Class Notes

- Actor network theory is a method rather than a theory because it is just a description.

TOPIC 7: Do Artifacts Have Politics?

Presentation & Reading Notes

- [Reading Notes](#)
- [Presentation](#)

In class Notes

- Science and technology are always influenced by government, society, and culture.

TOPIC 8: Middle term testing?

Quizzes:

1. Drawing from the assigned readings in the class, describe 2 or more definitions of the concept of "theory." What is theory? After describing other's opinions please provide your own. What do you think theory is? or, how is theory useful to you?
2. Choose any object. Imagine you were conducting a research study on this object. Apply the theory of social construction of technology to the study of this object. Describe how you would go about using the theory to study the object.
3. Write a research proposition/hypothesis that a technological determinist would use. Explain why it is appropriate to the theoretical approach. Explain how you could measure/test this. Offer two criticisms of this approach.
4. What role did Thomas Kuhn have in the understanding the concept of "science?" What was the common understanding of science before Kuhn? How did Kuhn's ideas shape modern scientific practice?
5. Why is Actor Network Theory more of a method than a theory?

Topic 9: Politics, Science and the Public (Theory Showcase: Structuration and Adaptive Structuration Theories)

Material

- Reading Material available at: [Sismondo: chapters 15, 16, and 17](#)

Presentation & Reading Notes

- [Reading Notes](#)
- [Presentation](#)

Topic10: Subjective and Objective: Diffusions of Innovation Theory

Material

- Reading Material available at: [Mathewman: Chapters 7, 8, and conclusion](#)

Presentation & Reading Notes

- [Host the lecture, no reading notes](#)
- [Presentation](#)

Topic11: Theory Showcase: Media

Material

- Reading Material available at: [Schroeder: Chapters 2 and 3](#)

Presentation & Reading Notes

- [Reading Notes](#)
- [Presentation](#)

Topic12: Theory Showcase: Institutional Theory (Everyday Life with Internet)

Material

- Reading Material available at: [Shroeder: Chapters 4 and 5](#)

Presentation & Reading Notes

- [Reading Notes](#)
- [Presentation](#)

Summary material

- [Institutional theory](#)
- [Institutional theory lecture](#)

Topic 13: Theory Showcase: Foucault and theories of Power

Material

- Reading Material available at: [Shroeder: Chapter 6 and 7](#)

Presentation & Reading Notes

- [Reading Notes](#)
- [Presentation_big_data](#)
- [Presentation_future](#)

Summary material

- [Power Knowledge](#)
- [Introduction to Michel Foucault, Module on Power](#)
- [Michel Foucault and Power](#)

In class notes :

Why big data isn't new:

1. Data belongs to the object or phenomenon under investigation; it is material collected about the research object.
2. Data exists prior to analysis.
3. Data is the most divisible or atomized useful unit of analysis.

Media, globalization, technology

Media

1. Need of theory of media
2. Limited effects related to social orders and powers

Micro v.s. Macro

1. Global cultural thickening of connection?
2. Limited/fragmented by linguistic and geographical lines.

Global?

1. Some patterns are global: tetheredness to information and each other
2. Nations and media systems have some common patterns.

Does technology lead to globalization?

1. Modernizing or globalizing
 - Without evaluation on the processes.
 - Lags

The uses and limits of Theory

Role of theory:

1. Identify major social problems and tensions (for policymakers and researchers)
2. Shift the debate about the role of media in society
 - social support
 - information needs
 - visibility for new groups
 - targeting: new ways to shape attention
3. Enable new social forces
4. Guide research

Limitations:

1. Applicability
2. Non-users by choice/lacks access
3. Keeping up with the latest technology

Technological shaping:

1. Main factor leading to social change
2. Caging structures of technology across countries
3. Micro and macro
4. Fear of technological shaping - human agency

Mediated Politics

One view:

1. Political science captures the contention or struggle for shaping society via media, but it exaggerates the openness.

Important Question: Regarding the question, how to help build a healthy and public environment in social media? How the author talk about and what is your opinion about?

Final Project

Basic Requirements

Each team of 3 students will write one final paper together. You will help each other choose and employ a theory in a research context. You may choose the same theory as another student, but must employ it differently. All team members will receive a signal grade.

The final paper will have three parts. Each part will be written by all 3 members of the team, but be focused on an individual team member's research interest. The entire paper will be between 8,000 and 10,000 words. Each section should be of relatively similar size. Each of the three parts will contain the following pieces.

1. Introduction to a socio-technical problem.
2. A description of the context of the problem.
3. A brief literature review.
4. An expanded choice and defense of theory to be used.
5. Research question(s).
6. Potential methods.
7. Bibliography.

Deliverables:

1) Parts 1, 2 and 3 for each student--Due Wednesday October 16th.

2) Final Paper. Due Wednesday December 11th.

TOOLS:

Your projects must use social science theories (a full list of theories is found here theorizeit.org)

[Evolutionary theory](#)

Social Influence theory.

Final draft requirement:

PROPOSAL (not finished research) 10,000 words. Approximately 3000 words per teammate. Includes Introduction, background/context, literature review, theory choice and defense, proposed methods and data. Bibliography.

Notice for mini project:

1. Social problem.
2. Research question.
3. Short literature review.
4. Collect data and process data.

Feedback from Professor

1. Important to put the Question.
2. Literature review should about the security question.
3. Move second paragraph to first. **DONE**
4. Introduction to the social problem. response to the problem.
5. Move the last part of introduction to the context.
6. Move the context part to the theory choice.
7. Literature review leading to my question.
8. We choose a theory do not necessary to solve the problem but to explain the problem.

Qualify Exam Requirement

1. You need to three paper in three different area. (social informatic, computer science, HCI)
2. Portfolio submitted to Graduate Programs 3/20/2020 Program staff creates and populates student folders.

Preparing your portfolio:

- A version of your CV, customized as relevant for purposes of the Qualifying Exam.
- A table listing all graduate IST courses taken in Fall 2019 and Spring 2019, with grades and expected grades.
- 500-words research abstract.

Materials:

1. [QualifyExam](#)
2. [2018_qualify_examination](#)
3. [spring_2020_qualifying_exam](#) \$