Syllabus for Graduate Course on Matters of Infrastructure

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Course Description:

This course focuses on core issues and concerns that have shaped the study of infrastructures, particularly information infrastructures, and the role of governments around the world in building, maintaining, and regulating them. It will critically engage with how infrastructure is analyzed as a techno-social human achievement and a problem of governance. Specifically, we will unpack the use of data in organizing and governing infrastructures, and study different analytic approaches to investigate the sociocultural, political, and techno-legal dimensions of the lives of data subjects in a seminar style classroom setting. The first half of the course deals with exploring intellectual developments in the study of information infrastructures and the second half addresses different analytic features of infrastructures that mutually shape our experience of living with them. By the end of this course, students are expected to not only be able to identify problems that require infrastructural solutions, but also explore tensions that emerge when these solutions encounter the sprawling conditions of the world.

Learning Outcomes:

Upon completion of this course, you will be able to:

- **Understand** and contextualize some of the major concepts, themes, and sensibilities that have shaped the study of information infrastructures;
- **Challenge** and unpack entrenched assumptions about big data analytics and role of data in our everyday lives;
- **Critically reflect upon** and **contribute to** the challenges of building and maintaining infrastructures;
- **Write** and **present** concise and effective analyses and reports of original research.

As an overview of infrastructure studies, this course is inevitably partial – both in the sense of being incomplete and in the sense of prioritizing some dimensions of infrastructure studies over others. My goal is to give you a good enough sense of the field to recognize these partialities and make them productive for your own work.

Assignments:

**Weekly reading responses:** You will be expected to produce 2-3 pages of reading notes that engage key arguments, insights, and findings of the weekly readings. While some will use these to produce concise summaries, others will explore specific thoughts, questions, or concerns. Whatever you do, the main goal is to use the notes to engage the readings in a more sustained and incisive way. You are encouraged to review the notes of other students before the seminar.

**Seminar leadership:** Twice during the semester, you (working in groups of 2-3) will be responsible for introducing and leading the discussion of the weekly reading sets. Groups will have two primary responsibilities:

1. Produce a 2-3 page thought piece that pulls out what you as a group find most interesting, useful, or provocative about the readings. The piece shouldn’t be a mere summary; rather, there should be some organizing principle(s) or question(s) that can ground, guide, and provoke our group discussions.
2. Introduce the readings and propose questions for discussion, drawing on the thought piece. Introductory comments will be strictly limited to 15 minutes.

Discussion leads are NOT required to produce individual reading notes in addition to the thought piece.

**Book report and presentation:** Each student will be asked once during the semester to prepare a book report and presentation, covering a book-length text related to the weekly readings and/or broader themes of the course. These books are to be selected from the list of relevant texts following each weekly reading set. The book report should be 1,500-2,000 words in length (that’s around 6-8 pages double-spaced), and should do each of the following:

- succinctly summarize or convey the author’s main arguments, and how they go about making them;
• engage critically with those arguments (including pointing to particular strengths and contributions, along with potential limits or weaknesses, of the author’s main points); and
• point to particular contributions or connections between the book and other readings and themes of the course.

In addition, you will be asked to prepare a 15-minute conference-quality presentation that addresses the same three points. By way of calibration, we’d encourage you to allot 10 minutes to presenting key arguments and findings (recall that your classmates won’t generally have read the book), and 5 minutes to discussing limits, problems, and implications for infrastructure studies scholarship. There will be 5 additional minutes for questions and discussion during the class.

**Term paper:** A final essay will be required by the end of the semester; this paper, of at least 5000 words and on an infrastructural problem of your choice in consultation with the instructor, will consider and attempt to synthesize some of the issues and concerns encountered in the course. This essay should first provide an overview of approaches to resolve the problem and then, map the uneven distributional consequences of choosing an approach. One month before the end of the semester, I would like to see a formal essay proposal, including a 1-2 paragraph description of the infrastructural problem; an outline of the anticipated structure of the paper; and a list of 5-10 published sources you plan to cite or draw on in making your argument.

**Class Schedule:**

**Week 1: Organizational Meeting**

An introduction to the class. We’ll review course mechanics and get a sense of the themes and concerns of the course. In class, we will take a contemporary example of an information infrastructure and discuss how to methodologically approach and unpack its distributional consequences.

**Further readings:**


**Week 2: Tracing Infrastructure Studies**

**Readings**


**Books for Review:**


*Further Readings:*


• Furlong, Kathryn. 2014. “STS beyond the ‘Modern Infrastructure Ideal’: Extending Theory by Engaging with Infrastructure Challenges in the South.” *Technology in Society* 38: 139–47.

### Week 3: Cities and the Governance of Difference

#### Readings


#### Books for Review:


**Further Readings:**


**Week 4: Towards an ethnography of Infrastructure**

**Readings**


**Books for Review:**


**Further Readings:**

Week 5: The Role of the Ethnographer

Readings


Books for Review:


Further Readings:


Week 6: Classification and Standards

Readings


Books for review:


**Further Readings:**


**Week 7: The Mutual Shaping of Data Records and Data Subjects**

**Readings**


**Books for Review:**


**Further Readings:**


**Week 8: Algorithms and Platforms**

**Readings**


**Books for Review:**


**Further Readings:**


**Week 9: (In)visibilities of Infrastructure**

**Readings**


**Books for Review:**


**Further Readings:**


• Special Issue of *Computer Supported Cooperative Work (CSCW)* on ‘Invisible Work’, Volume 8, Issue 1–2, 1999.

**Week 10: Infrastructural Temporalities**

**Readings**


Books for review:


Further Readings:


Week 11: Infrastructural Spaces and Geographies

Readings


Books for review:


_Further Readings:_


**Week 12: Scaling Infrastructures**

_Readings:_


_Books for review:_


_Further Readings:_


**Week 13: Public Infrastructures**

Readings


Books for review:


Further Readings:


• Special Section of The Cambridge Journal of Anthropology on ‘Remaking the Public Good: A New Anthropology of Bureaucracy’, Volume 33, Issue 1, 2015.

Week 14: Rethinking Repair in a Broken World

Readings


Books for review:


Further Readings:

**Week 15: Wrap Up: The Promise of Infrastructure**

In this session, we will revisit the course themes, explore them using draft versions of final essays written by students, and end by discussing the future(s) embedded in building and maintaining infrastructures.

**Readings:**


**Submission of final essay is due at the end of the semester.**