INSC 598: CRITICAL AND CULTURAL DIMENSIONS IN INFORMATION SCIENCE

Autumn 2022

Instructor: Lindah Kotut  
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Office Hours: T/Th 1:00pm – 2:30pm  
Office: MGH 015A/ Zoom

Meeting Times: T/Th 10:30am – 12:20pm  
Location: MGH 251

Course Website:
  - https://canvas.uw.edu/courses/1581372

Course Description

This course uses a variety of critical lenses to explore emerging topics, assess research practices, and evaluate various methodologies at the intersection of culture and technology. Through readings, written reflections and in-class discussions, students will engage with academic writings on historical and emerging themes and apply culturally-aware theories and structural frameworks for observation and analysis. Topics will include broad view of cultural aspects related to power (who wields it, how it is used/abused, harms it causes, and remedies to harm) and agency (what it looks like, how it is held/lost, how it is suppressed/amplified).

Course Objectives and Learning Goals

Upon course completion, students will:

- Have increased awareness of the impact that technology has on society and culture
- Develop a broad understanding of key critical concepts, theories, and frameworks examining technology influence and impact on various cultures
- Practice an interrogative approach when interacting with emerging cultural themes
- Connect with research from various domains and develop an interdisciplinary view of conducting research
- Develop critical evaluation tools and frameworks toolbox that guide their own research inquiry

Grading

Grade Distribution:

- 10%: Attendance/Participation - Students should come to class prepared to discuss the readings and associated topics.
- 20%: Weekly Summary Responses/Reflections - Weekly reflections are due every Friday, and provide the opportunity for the student to clarify their thoughts, offer criticisms, and/or defend their stance. These summaries will guide the discussions in subsequent classes.
- 20%: Discussion Lead - Each week’s theme is anchored by a book, and each student is expected to lead one book discussion. The lead should provide a summary and discussion outline before class. The rest of the students can book reviews or summaries in preparation for the discussion. You are only required to read one book in the quarter.
• 20%: Annotated Bibliography - In lieu of the midterm, and in preparation for the final paper, students will submit an extended abstract to accompany the annotated bibliography.

• 30%: Final Paper - Students will submit a final paper that combine topics covered in this course and their own individual research.

Course Schedule

*All these texts are either freely available online, or provided by the UW library. Every Tuesday discussion is anchored by a book. Unless you are the discussion lead, it is OK to skim through the book, or read book reviews/book summary in lieu of the book itself.

Week 1: Introduction

We’ll set the scope of the course, introduce the topics we’ll cover, discuss associated challenges, and research questions.

• The Culture of Technology (9th ed) by Arnold Pacey (Available through UW library. (Chapter 1/2)


Week 2: Cultural Production, Circulation and Consumption

We’ll consider authenticity and identity and big data. We borrow the term “cultural production” from Pierre Bordieu’s “The Field of Cultural Production”. We’ll talk about the dimensions of how this manifests online. Come prepared to talk about how you conduct your research – from whom and to whom you present your work.


• Kiran Garimella, Gianmarco De Francisci Morales, Aristides Gionis, and Michael Mathioudakis. 2018. Political Discourse on Social Media: Echo Chambers, Gatekeepers, and the Price of Bipartisanship. WWW. 39

• Further reading (Book): Dal Yong Jin (2021). Artificial Intelligence in Cultural Production Critical Perspectives on Digital Platforms

Week 3: Gender and Race

We look at gender and race from two view points. First from the role of technology in perpetuating society role in suppressing underrepresented and marginalized groups–and even targeting them, and then from looking at the intent of such technology and the impact of such. We’ll then apply critical lens on race and gender in the discussion of these texts, and also in talking about your own research.

• Ruha Benjamin. 2019. Race After Technology: Abolitionist Tools for the New Jim Code (Unlimited ebook copies provided by UW library)


**Week 4: Power, Inequality and Resistance**

We’ll cover topics including digital inequalities, surveillance, surveillance capitalism, “big brother” and “big other”. We’ll continue the discussion and consider notions of resistance, design justice, emancipatory research and other critical lenses on agency


• Christina Harrington, Sheena Erete, and Anne Marie Piper. 2019. Deconstructing Community-Based Collaborative Design: Towards More Equitable Participatory Design Engagement


**Week 5: Discussion Week**

• Tuesday: Writing Break

• Thursday: Topic presentation and Peer feedback. We’ll talk about your intended final paper: The topic, the critical lenses and/or frameworks intended, the working hypothesis and other discussion points. Prepare a 15-20 minute presentation in a format suitable to you.

**Week 6: Algorithms + Artificial Intelligence**

Algorithms, AI and what the (lack) of consensus there is. Discussion topics include: chain of custody, agency, ownership, post-colonialism, sustainability. While we’ll talk about ethics as a topic in the next week, we’ll touch on the push-and-pull (and controversies) from researchers and industry point of view, and considering the impact on various cultures.


• TBD

**Week 7: Ethics and Morality; Boundary setting and Agency**

We’ll shift our lens to the critique of fairness, accountability and transparency.

• Kentaro Toyama. 2015. *Geek Heresy: Rescuing Social Change from the Cult of Technology*


Week 8: Narratives, Movements, Social Changes
We’ll shift our discussion to social media, and its use to effect cultural change. Is all change in culture good? Who are the catalysts for the changes?


Week 9: Writing Break
- Individual Meetings with Dr. Kotut
- Thanksgiving Holiday. No class.

Week 10: Oversight, Auditing
What is the state-of-art in auditing algorithms Using the frameworks and critical lenses we’ve used throughout the quarter, we’ll discuss what works and what leaves a lot to be desired. We continue the discussion into individual research and how we’d apply the lenses in individual fields of research.


Week 11: Peer Presentations
- Individual presentations

Week 12: FINAL EXAM WEEK
- We have no final exam. Your final paper is Due 11:59, Tuesday, Dec 20