Design and Society

I590, [semester and year]

Time: TBD
Location: TBD
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Course Description and Goals

Digital technologies play an increasingly significant role in shaping the ways in which we encounter, know and interact with the world and others in it. Designers of these technologies are thus in a very real way world builders, constructers of the digital architecture that provides the infrastructure for much of our lives. This building process clearly entails significant social and ethical implications. Yet the field of human-computer interaction design (HCI/d) typically looks only or primarily at the immediate individual or group use and experience of technology, and does not consider broader societal dynamics, technological trajectories, and normative implications.

The fields of Science and Technology Studies (STS) and the philosophy of technology do consider these dynamics. STS (or Social Informatics) looks at the relationship between technology and society, and demonstrates the contingency and the fundamentally sociotechnical nature of technological development. The philosophy of technology shows that technologies and systems can shape 'forms of life' in profound ways, and suggests normative implications for their design. It also provides a framework within which to critically examine and critique technologies and systems.

In this course, we will look at some of the major approaches and theoretical frameworks in STS and the philosophy of technology. The goal is to use the tools, theories and perspectives provided by these disciplines to explore, conceptualize, analyze, and evaluate digital technologies and systems. This type of analysis cannot – and is not intended to – lead directly into design. However, the intent is that familiarity with these approaches can give designers of interactive systems a sensibility and awareness of these dimensions that can inform the ways they conceptualize and engage with design problems and critique their solutions.

We will begin by looking at some of the foundational work in STS which points to the social contingency of technological development. Recognizing that technological development does not follow an inevitable trajectory allows us to see the agency that designers have in shaping this development. Next we will move on to work in the philosophy of technology, focusing on work that provides specific analytic tools and frameworks for critique. We will wrap up by exploring the politics of technologies, and the responsibilities and opportunities (or the 'evil' and 'splendor') of design.

Assignments

The assignments in this course are based on three components: reading, participation, and analytic writing.

Reading

The course is largely based on reading and discussion. While there will likely be some lecture component in order to introduce concepts, the goal is to have primarily seminar-style discussions. This means that we will work through the readings together, trying to understand, apply and critique them. Therefore, it is extremely important that students come to class having completed the assigned readings and engaged with them critically.

Participation

In order to facilitate this type of class discussion, students are expected to come to class with at least one or two 'response points' in reaction to the readings for the week. These could be questions, examples, connections to other readings or theories, challenges to an author's points, etc. Students are not required to turn these in, but should come with any notes they need to present their points to the class.

Writing

This is a course that is primarily about close theoretical analysis, which is something that is fundamentally linked to writing. Writing is not just an outcome – it is a process of careful *thinking*. There are three writing components in this course, of varying levels of formality.

The first component is the *class blog*. Students are expected to post to the blog roughly once per week, through either an original post or a substantive comment on someone else's post. These blog posts can consist of anything related to the course content. It could be a written version of 'response points' for the week, a reflection on a technology in terms of the approaches we cover, a great YouTube video that connects to class discussion – as long as it relates to the course in some way, anything is fair game. The blog is intended to provide regular and fairly informal writing practice in a supportive environment, and also to extend class discussion. Blog postings can also bolster class participation: students who prefer to not speak up in class but are active on the blog can receive full participation credit.

The second component consists of two short (roughly two to three pages) *analytic papers*. These papers will be analyses of a particular digital technology using one of the theoretical perspectives covered (e.g., social construction, technology and politics, sociotechnical networks, etc.). Students may choose any two perspectives they wish. The first paper will be due by Week 7, and the second by Week 14. On the weeks that students do these papers they may also post them to the blog for blog participation credit.

The final component is the *final paper*. Students will complete a 10-12 page paper in which they analyze a digital technology or system using whatever conceptual and theoretical tools they feel are appropriate or useful. The goal is to use these tools acquired during the semester to uncover the (perhaps non-obvious) social implications of technologies and make them visible for critique.

Grading

20% — Participation

25% — Blog posts

25% — Analytic papers

30% — Final paper

Required Texts

Kaplan, D. (2004). Readings in the philosophy of technology. Lanham: Rowman & Littlefield Publishers, Inc. *[abbreviated 'RPT' in schedule]*

Other Readings

(Will be made available in electronic format)

Collins, H. M. & Pinch, T. J. (1998). *The golem at large: What you should know about technology*. Cambridge, UK: Cambridge University Press.

Hughes, T. P. (1987). The evolution of large technological systems. In *The social construction of technological systems: New directions in the sociology and history of technology*. (pp. 51-82). Cambridge, MA: The MIT Press.

Kling, R., Rosenbaum, H., & Sawyer, S. (2005). *Understanding and communicating social informatics*. Medford, NJ: Information Today.

MacKenzie, D. A. (1996). *Knowing machines*. Cambridge, MA: MIT Press.

Nelson, H. & Stolterman, E. (2003). *The design way: Intentional change in an unpredictable world : Foundations and fundamentals of design competence*. Englewood Cliffs, NJ: Educational Technology Publications.

Pinch, T. J. & Bijker, W. E. (1987). The social construction of facts and artifacts: Or how the sociology of science and the sociology of technology might benefit each other. In *The social construction of technological systems: New directions in the sociology and history of technology*. (pp. 17-50). Cambridge, MA: The MIT Press.

Strong, D. & Higgs, E. (2000). Borgmann's philosophy of technology. In *Technology and the good life?* (pp. 19-37). Chicago & London: University of Chicago Press.

Verbeek, P. (2005). *What things do: Philosophical reflections on technology, agency, and design*. University Park, PA: Pennsylvania State University Press.

Winner, L. (1993). Upon opening the black box and finding it empty: Social constructivism and the philosophy of technology. *Science, Technology & Human Values, 18(3)*, 362-378.

Class Schedule

Week	Date	Topic	Reading
1		Introduction	none
2		Intro to STS and Social Construction	Collins and Pinch (Introduction) Pinch and Bijker
3		Social Construction	MacKenzie (Introduction)
4		Social Informatics Large Technological Systems	Kling, Rosenbaum and Sawyer (Ch 1 & 2) Hughes
5		Actor Network Theory	Latour – "A collective of humans and nonhumans" (in *RPT*)
6		Intro to Philosophy of Technology	Winner - "Upon Opening the Black Box and Finding it Empty" Feenberg - Intro to *Questioning Technology*
7		Early Philosophy of Technology *(First analytic paper due)*	Heidegger (in *RPT*)
8		Borgmann's Device Paradigm	Strong and Higgs Borgmann (in *RPT*)
9		Technology and the Self	Turkle (in *RPT*)
10		Technological Hermeneutics	Ihde (in *RPT*)
11		Postphenomenology	Verbeek (Ch 3)
12		Technology and Politics	Winner - "Technologies as Forms of Life" and "Do Artifacts Have Politics?" (in *RPT*)
13		Democratizing Technology	Feenberg - "Democratic Rationalization" (in *RPT*)
14		Society and Design *(Second analytic paper due)*	Nelson and Stolterman - "The Evil of Design" and "The Splendor of Design"
15		no class – work on final paper *(Final paper due)*	none