Computing, information technology, and digital media are integrated into virtually all aspects of contemporary life: private and public communication, transactions, and social interaction online and off. Information systems and digital networks constitute the infrastructure for critical societal institutions including commerce, banking and finance, governance, utilities, national defense, education, social networking, political campaigning, and entertainment. Many have studied the remarkable transformations in these activities, practices and institutions, and the science and engineering behind them. This course, however, studies the technologies, and associated socio-technical systems, through the lens of social, political, and ethical values. It asks us to consider whether and how these technologies promote or impede values to which we, individually and as societies, are committed, values, such as freedom, privacy, justice.

The course is project-centered. This means that while we explore concepts and literatures, students will form collaborative groups, select projects and apply philosophical and social theories of technology to analyze and, possibly, design, prototype, and build information systems. Students will be guided in the selection and development of project ideas and will be matched with one or two others, based on mutual interests and complementary skills. In parallel, we will cover samples from a literature of social commentary and academic writings in the philosophy and social study of technology seeking to understand the rich and sometimes troubling relationship between technology, on the one hand, and social and political factors, on the other. With this literature as a springboard, we ask questions such as: Does technology make the world better, or worse? Is technology a force for good or evil, or is it neutral? Who shapes technology? Can the technical and social be distinguished? Who should be in charge of directing technological development? Do scientists and engineers have a special role to play? Does technology dehumanize us? The second track directs us through a similar set of questions focusing on information technology and digital media.

The course welcomes students with a variety of backgrounds, including technical computer science and engineering students interested in learning about social, political, and ethical implications of their field, as well as students with humanistic, social science, and communications backgrounds interested in learning about the technology behind digitally mediated communication and experience. Project goals and deliverables will be adjusted according students’ backgrounds and skills.

Course Objectives

To familiarize students with the concept of values-in-design through relevant literatures in the philosophy of technology, information law, political philosophy, and STS;
To acquaint students with examples of key, contemporary controversies in the arena of information systems and digital media;
To synthesize disparate viewpoints into a working understanding that can be applied in an active design project;
To provide a guided, collaborative, cross-disciplinary project design experience.
Readings

All required articles are available on Blackboard

Strongly recommended:
Norman, D. *The Design of Everyday Things*. New York: Doubleday, 1989 (Later editions are fine.)

Blackboard Course Homepage

The course homepage includes the most up-to-date schedule as well as course requirements, readings, and announcements. In addition, you will find external links and an online discussion board.

**From Day Two onward, the blackboard version of the syllabus pre-empts the handout on Day One**

Requirements and Grading Policy

Students are expected to attend all classes, complete assigned readings before class, and come prepared with questions each week. On a rotating basis, students will take responsibility to present ideas and commentary to the class. Grades will be assessed according to three criteria: participation (attendance, in-class presentation and discussion), a collaborative project presentation, and a term paper.

***To pass the class, students must pass each of the three elements.

30% Participation (attendance, in-class and online)
20% Project presentation
50% Term paper (12-15 pp)
Schedule (All readings and complete bibliographic details are available on Blackboard)

<table>
<thead>
<tr>
<th>Date</th>
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| Jan 27 | Introduction to the course  
Demo: PostPref (Jaime Madell & Ian Spiro) |
| Feb 3  | Technology and human values  
Introduction to key course themes, with a few examples; discussion of projects  
Readings  
Winner, L. Do artifacts have politics?  
Friedman, B & H. Nissenbaum, Bias in computer systems  
(optional) Introna, L. & H. Nissenbaum, The politics of search engines |
| Feb 10 | Technology a force for good or evil: the idea of technological determinism  
Readings  
Weinberg, A.M. Can technology replace social engineering?  
Postman, N. Five things we need to know about technological change  
Thierer, A. The case for internet optimism, Part 1: Saving the net from its detractors (in The Next Digital Decade on blackboard)  
Heffernan, Against Headphones  
Zernike, The Nation: Sounds of Silence; First, Your Water Was Filtered. Now It's Your Life  
Technological determinism, See Wikipedia entry |
| Feb 17 | Social construction of technology and socio-technical systems  
Readings  
Bijker, W. The Social Construction of Fluorescent Lighting  
Paffenberger, B. Technological dramas  
Latour, B. Where are the missing masses? The sociology of a few mundane artifacts  
Mills, M. Do signals have politics? Inscribing abilities in cochlear implants |
| Feb 24 | The practical turn I: expanding the set of evaluative criteria  
Readings  
Kerr, I. Digital locks and the automation of virtue  
Bentham, J. Panopticon; or the inspection house  
(optional) Rosenthal, D. Assessing digital pre-emption (and the future of law enforcement) |
| Mar 3  | Values embodied in the socio-technical  
Readings  
Introna, L. Towards a post-human intra-actional account of socio-technical agency  
Gibson, J. The Theory of Affordances  
Bowker, G. & L. Star, Sorting things out: classification and its consequences (excerpts) |
| Mar 10 | The practical turn II: Can values drive design?  
Readings  
Weber, R. Manufacturing gender in military cockpit design |
Van Oost, E. Materialized Gender: How Shavers Configure the Users' Femininity and Masculinity
Norman, D. The design of everyday things (excerpts)
Orlikowski, W. & C.S.Iacono, Desperately seeking the IT in IT research

Mar 17  Spring Break
Mar 24  Values: what? whose?

Readings
Constitution of the United States of America: Bill of Rights
Nagel, T. The fragmentation of value
Berlin, I. The Crooked Timber of Humanity
Johnson, D. J. Sorting out the Feminist technology question
Anderson, E. A Pluralist Theory of Value (excerpts)

Mar 31  Groups work independently
Apr 7   The Internet Part I

Readings
Lessig, L. The law of the horse: what Cyberlaw might teach

Clark, Wroclawski, Sollins & Braden, Tussle in cyberspace: Defining tomorrow's Internet
Zittrain, The generative internet

Apr 14  The practical turn III: Alternative approaches, considerations, and challenges

Readings
Friedman, B., P. Kahn, & A. Borning. Value sensitive design and information systems
Sengers, P. et. al. Reflective Design
Perry, J., E. Macken, N. Scott, and J. McKinley, Disability, inability, and cyberspace

Apr 21  The Internet Part II

Readings
Pasquale, F. Reputation regulation
Shirky, C. Here Comes Everybody (excerpts)
Benkler, Y. and H. Nissenbaum, Commons-based peer-production and virtue

Apr 28  Project presentations
May 5   Project presentations

May 11:  Term paper due

Guide to Collaborative Projects: Target Timeline
Feb 17:  Select topic and group
Mar 3:   Outline project (2-4 pages)
Mar 24:  Project sources (submit bibliography, annotated if possible; websites; objects: 3-5 pages)
Apr 14:  Working draft (analysis, design)
Apr 28/May 5:  Project presentations