

## STSC 0600-900: Technology and Society

Summer 2022

Monday and Wednesday, 5:15–7:15pm ET, Online

Instructor: Sam Schirvar ([schirvar@sas.upenn.edu](mailto:schirvar@sas.upenn.edu)) Office Hours: TBD

Syllabus version: March 1, 2022



*Man, Controller of the Universe* (1933) by Diego Rivera

### **Course description**

Technology is often seen as a defining feature of our modern world. Major social changes are often attributed to technological inventions such as the printing press, the atom bomb, and the Internet. How has technology transformed society? How has society shaped technology? In this class, we'll think critically about the interaction between technology and society by exploring several technological changes from the past three hundred years, from railroads and telegraphs to computers and industrial robots. We'll ask: How did these technological changes transform relationships between people? How have these technologies changed how we understand our society's past and its future? Students will learn how to see technology through political, economic, social, and cultural lenses. Through reading, writing, and discussing historical and social-scientific scholarship on technology, students will develop their own critical perspectives on current technological issues and debates. This is an introductory level course and no prior knowledge is required.

### **Readings**

There is one required book for the course, which is available for purchase (and relatively inexpensive) at online retailers and will be placed on course reserve at Van Pelt Library.



David Edgerton, *The Shock of the Old: Technology and Global History Since 1900* (Oxford University Press, 2011).

Note: This is *not* the 2019 version.

Penn Libraries offers free access to an [online ebook version](#). However, I recommend that students acquire a physical version for annotation and less eye strain. All other readings are available as PDFs via the course's Canvas website.

Each class session requires reading about 20-30 pages or viewing a film. It is suggested that you watch the lecture first and *then* do the reading. In most cases, the lectures provide the “big picture” on that class's topic while the readings provide a more detailed narrative.

### **Assignments and grading**

#### *Discussion questions (15%)*

At least 24 hours before our class meeting, I will post a recording of the lecture for that day on Canvas. You will be expected to post a question in response to the lecture and/or the readings on Canvas by 4:00pm on *each* class day. This post consists of a one-sentence question *and* one or two sentences that contextualize the question. You are allowed miss two discussion posts. After that, missing posts will affect your grade.

#### *Discussion participation (25%)*

You are expected to come to class having viewed the lecture and read the assigned reading(s) for that day. Receiving full discussion participation points requires coming to class, offering your interpretation of the lecture or readings, and engaging with your classmates. Because you will have already watched the lecture, the class sessions will not run for the scheduled two hours of class time. They will generally run for about an hour, although I will stick around for the rest of the time period to offer additional office hours. You are allowed miss two class periods for any reason. After that, missing class will affect your grade.

#### *Short Reflections (2 × 5%) Due: June 7 and August 5*

Short reflections are brief essays in which students reflect on the lecture and reading material from the past couple weeks and connect it to their own lives.

#### *Papers (2 × 25%) Due: July 1 and July 29*

Papers are essays in which students use historical methods to analyze course readings, lecture material, and primary sources.

### **Course website**

The course Canvas site can be found at [TBD]. Make sure that you have access to the site as soon as possible. You will need it throughout the semester to access readings, to submit assignments, to view grades and feedback, and to receive important announcements. You may want to check your Canvas settings to ensure that you are receiving notifications by email. Because technical problems sometimes occur, always double-check to be sure that your submitted assignments have been correctly uploaded.

### **Extension and Late Assignments Policy**

You are granted three “flex days” to use throughout the semester, no questions asked. Each flex day allows you to extend any deadline by 24 hours, and multiple flex days can be applied to one assignment. After you use your flex days, a grade point will be subtracted for each day late (For example, an “A” paper that was 48 hours late would become a “B+”).

### **Academic integrity and non-discrimination policy**

Although we all come to the course with different preparation, aims, and institutional positions, we are here to learn and discover together, and each of us is responsible for doing our part to create a respectful and productive classroom environment. Everyone involved with the course will be expected to abide by Penn’s [Code of Academic Integrity](#). Because plagiarism and other violations of academic integrity undermine the learning process for the individual as well as for the broader academic community, they will result in a failing grade and possible disciplinary action.

No form of harassment or discrimination on the basis of religion, race, ethnicity, class, gender, sexual orientation, age, disability, etc., by either the instructional staff or the students, will be tolerated. If you believe these policies are being violated or insufficiently enforced, please inform the instructor, your academic advisor, the [College Office](#), and/or one of the other appropriate University of Pennsylvania offices (some of which are listed [here](#)).

### **Special Accommodations**

All appropriate efforts will be made to accommodate disability status, religious obligations, childcare and other family responsibilities, and other special needs. If you anticipate needing special accommodations or having conflicts with the course requirements for these or other reasons, please inform the instructor as soon as possible, ideally within the first two weeks of the course. Requests for disability accommodations will require documentation through [Student Disability Services](#). In case of injury, illness, or family emergency that interferes with your ability to complete assignments or attend lectures, please contact the instructor as soon as possible to make alternate arrangements.

Date	Lecture	Readings
	<b>Part I: Foundations</b>	
May 23	Introduction	—
May 25	Power and Choice	SOTO Introduction Langdon Winner, “Do Artifacts Have Politics?”
May 30*	Progress and Change	SOTO Ch. 2 Time
	<b>Part II: Industrialization (1700-1945)</b>	
June 1	Mechanics and Mechanism	<i>Mechanical Marvels: Clockwork Dreams</i> (2013)
June 6	Factories	Donald MacKenzie, “Marx and the Machine”
June 7	<i>Short Reflection I due at 11:59pm ET</i>	
June 8	Plantations	SOTO Ch. 3 Production
June 13	Networks: Railroads, Telegraphs, and Electrification	Manu Karuka, “Railroad Colonialism”
June 15	Engineers and Managers	SOTO Ch. 4 Maintenance
June 20*	Households	Laurel Graham, “Domesticating Efficiency”
June 22	Industrializing Warfare	SOTO Ch. 6 War
	<b>Part III: Our Modern World (1945-Present)</b>	
June 27	The “High Tech” Cold War	<i>Dr. Strangelove</i> (1964)
June 29	The Origins of Computers	Jennifer Light, “When Computers Were Women”
July 1	<i>Paper I due at 11:59pm ET</i>	
July 4*	Technology in the Development Century	SOTO Ch. 5 Nations
July 6	Personal Computers and the Internet	Jason Resnikoff, “The Paradox of Automation”
July 11	Information Revolutions	Janet Abbate, “Cold War and White Heat: The Origins and Meanings of Packet Switching”
July 13	Automation and Robots	Venus Green, “Black Operators in the Computer Age”
July 18	Revolt of the Engineers!	Matthew Wisnioski, “Technics-Out-of-Control as a Theme in Engineering Thought”
July 20	Globalization and “Deindustrialization”	Dipesh Sharma, “The Transition to Offshore”
	<b>Part IV: Thinking about Technology Today</b>	
July 25	Guns and Political Culture	Selika Ducksworth-Lawton, “The Deacons for Defense and Justice, Armed Self Defense and the Long Black Power Movement”
July 27	Innovation or Maintenance?	SOTO Ch. 8 Invention Russel and Vinsel, “The Maintainers”
July 29	<i>Paper II due at 11:59pm ET</i>	
August 1	“Big Tech” Today	Lilly Irani, “The Cultural Work of Microwork.”
August 3	Techno-Utopia and Techno-Dystopia	SOTO Conclusion
August 5	<i>Short Reflection II due at 11:59pm ET</i>	

\* No class meeting due to University holiday. Instead of synchronous class discussion, students will participate in an asynchronous discussion on Canvas.