Welcome! This is an upper-level small lecture course on the history of America’s digital age, tracing the evolution of the computer hardware and software industries from the Manhattan Project and mainframes of the 1940s to the social media and software giants of today. We’ll explore why American technology companies (in Silicon Valley, Seattle, and elsewhere) became such a successful and consequential force in global business and society, unearth the human stories and political histories behind the technology, and historicize and contextualize today’s debates about digital technologies and platforms.

This is a class for students who build, study, or use digital technology—in short, everyone. No prerequisites required.

Learning goals:
- Understand the key public- and private-sector catalysts of industrial development in the technology sector;
- Situate technology’s history within broader developments in modern American history;
- Critically assess, and contest, common narratives about the technology industry, digital technology, and the people who lead and work in that industry; and
- Demonstrate in-depth knowledge of the historical context of data and digital data production, and understand data as a product of that social context.

Readings:
You are not required to purchase texts for this course. Your only course costs will be renting two streaming films (total cost about $8), and you are welcome to watch together with class colleagues and share the expense, or the popcorn. All other required readings and audio/video are free and in an electronic course pack available to enrolled students and auditors on the course Canvas website by the start of Winter Quarter. Expect to read 75-100 pages per week (or multimedia sources that take approximately the same amount of time to consume). To obtain access to all these sources, please make sure you are signed into your computer with your UWnet ID.
Assignments:

1) Seven 500-700 word discussion posts on course content and additional short reading tied to the post, to be posted on Canvas no later than 11:59PM on Friday. You get one “bye” week on the midterm week, and two additional “byes” on the weeks of your choice. (5% per post, for 35% total)

2) Participation, consisting of engagement in discussion section and additional in-class and “homework” discussion and research tasks. (ongoing; 15% of grade)

3) Midterm essay exam: written exam of original essays on lecture/reading content from the first two-thirds of the quarter, responding to prompts posted by instructor, taken online on Canvas. Questions published Thursday Feb 10 at 5pm, due Sunday Feb 13 at 11:59PM. (25% of grade)

4) Final research project: on a topic of your choosing that relates to the history and evolution of the digital age, and/or historicizes a current digital phenomenon. You may choose the format:
   • a footnoted paper of 1250-1750 words (8-12 double-spaced pages) in length;
   • a scripted podcast of 15 minutes or less;
   • a web page;
   • an app, program, or widget;
   • a visualization, photodocumentary, or another piece of visual art.
Whatever its form, it should make an argument based on primary and secondary sources, and should include a written bibliography or running credits. Project proposal (topic and medium), submitted on Friday of Week Seven (Feb 18), will count for 5%; the full project, submitted by the end of finals week as part of the final portfolio, counts for 20% (25% of grade in total).

Weekly schedule (overview):

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Week One: Before the Digital Age
Tue Jan 4: Welcome to HSTAA 317
Thu Jan 6: Thinking historically about digital tools and data

READ
1) Andrew Russell and Lee Vinsel, “Hail the Maintainers,” Aeon, April 2016
2) Mar Hicks, “Built to Last,” Logic No. 11, August 2020

INTRODUCTION
Introduce yourself—via text, video, audio—on our class Introductions page on Canvas.

POST
Explore The Songs of the IBM, a corporate songbook used from the 1920s to the 1970s in IBM company meetings (this edition is from 1937). Write a discussion post (noting particular examples of songs and lyrics) on what this primary source tells you about IBM’s corporate culture, organizational structure, and priorities of its executives. What purpose does the songbook seem to serve? What does this tell you about the company and about the early 20th century technology business generally? What might be an analogous practice or feature in one of today’s major tech companies?

Week Two: World War II, The Bomb, and American Science
Tue Jan 11: The Manhattan Project
Thu Jan 13: The ‘Endless Frontier’

WATCH
1) “I am Become Death: They Made the Bomb” (1995, 56 minutes)

READ
3) Vannevar Bush, “As We May Think,” The Atlantic (1945)

POST
Read the Summary and Introduction of Science, The Endless Frontier (1945), the report by Presidential Science Advisor Vannevar Bush to President Franklin D. Roosevelt making the case for ongoing federal investment in science and technology. Browse the other sections of the report you see interesting as well. Write a discussion post (quoting or paraphrasing salient passages of the text) on what this document tells us about American attitudes towards science and its uses and notions of “progress” at the close of World War II. How does this help us understand the role of science and technology in the United States during and after the war? How does it compare and contrast to ideas about science and technology today?
Week Three: Loving and Fearing “The Electronic Brain”
Tue Jan 18: The early computer industry
Thu Jan 20: The privacy wars

WATCH
1) “Remington Rand Presents the Univac” (1952; 17 min)

READ
3) “The Computer and Invasion of Privacy,” July 1966 – read opening statement of Rep. Cornelius Gallagher (pp. 1-4) and testimony of Paul Baran (pp. 119-128)

POST

Week Four: White Spaces, Tech Places
Tue Jan 25: The military-industrial complex
Thu Jan 27: Why tech is in the suburbs

READ

POST
Through online searching, find two primary sources (image/film/text, from a credited and credible source) from the 1950s or early 1960s, one a representation of suburban
life, a second a representation of American science and technology. (Some places to start might be the online archives of LIFE magazine or the many YouTube clips of the 1950s television program Disneyland.) How do these sources reflect and project ideas of race and gender in the places and institutions that nurtured the early technology industry? How do they help us understand and potentially remedy today’s underrepresentation of female-identifying and Black and Latino employees in tech, particularly in engineering and managerial roles? In your post, be sure to include the images and a link to where you found them.

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**Week Five: From Moonshots to Hippies**

Tue Feb 1: The space race and Silicon Valley
Thu Feb 3: The Vietnam generation pushes back

**READ NO READING – MOVIE WEEK!**
Choose and watch one of the following Hollywood films about the early digital age. All available on multiple streaming services for rent ($3-4), or at the UW Libraries.

1) **Desk Set** (1957)
2) **Dr. Strangelove** (1964)
3) **2001: A Space Odyssey** (1968)

**POST**
Post a short commentary on the film you watched this week, its strengths and weaknesses, and how it relates to and builds upon what we have learned thus far in class. Along with this general commentary on the film as a whole, identify your favorite scene, and tell us why it’s interesting.

**SELF-ASSESSMENT**
Shared privately via email to instructor and TA by Friday 5PM, telling us two things:

1) How you feel you’ve done in class thus far, assessing strengths and weaknesses, and outlining your goals for the remainder of the quarter.
2) One thing you’ve learned in this course so far that you have been able to apply in another class, or that’s helped you better understand or contextualize what’s in the news.

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**Week Six: The Computer Becomes Personal**

Tu Feb 8: The hobbyists and homebrewers
Th Feb 10: The personal computer moves in

**WATCH**

1) **The Mother of all Demos**, December 1968
2) **Steve Jobs introduces the Macintosh**, January 1984 (watch the first 15 minutes)

**READ**

NO POST THIS WEEK

MIDTERM EXAM will be posted online at 5pm on Thursday Feb 10 and will be due Sunday Feb 13 at 11:59PM

Week Seven: Wargames
Tu Feb 15: The Pentagon, AI, and the internet
Thu Feb 17: Star Wars and Cold War

WATCH
1) WarGames (1983)—available on Netflix, Amazon Prime, and for rent on YouTube, iTunes, and other services ($3-4)

LISTEN
1) Fred Turner and Charlton McIlwain, “The Origins of the Internet” (2020, 60 min)

READ
1) Stephanie Ricker Schulte, “The WarGames Scenario,” in Cached: Decoding the Internet in Popular Culture (2013)

POST
Watch Ronald Reagan’s address announcing the Strategic Defense Initiative, March 1983 (29 min). What case is he making to his audience? How does his rhetoric compare and contrast with earlier sources we’ve examined from earlier in the Cold War? Reagan was known as “The Great Communicator.” How does this speech support that characterization?

RESEARCH PROJECT PROPOSAL due Friday Feb 19 at 11:59PM

Week Eight: the dot-com boom
Tu Feb 22: Suits in the Valley
Thu Feb 24: The Microsoft antitrust case

WATCH
1) Bill Clinton and Al Gore at Silicon Graphics, 1993 (start around min 11:00, go until around 23:00)
2) “Yahoo! Jerry and Dave’s Excellent Venture” (1997, 32 min)
3) Jeff Bezos on 60 Minutes (1997, 13 min)

READ

POST
The internet now features an abundance of goofy 90s-era videos about “the World Wide Web” and life online. Find one of them and contextualize and historicize it as a primary source (post or embed the link to the video itself). What does it reveal about how different institutions and media outlets understood technology and portrayed the commercial internet to a wider audience? Who are they speaking to? What do they get right, and what do they get wrong? How does this help explain popular perceptions of the online world in the 1990s and beyond?

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**Week Nine: Global Silicon Valleys**

Tue Mar 1: Immigration and American tech
Thu Mar 3: Globalization of American tech

READ
2) Neal Stephenson, “Mother Earth Mother Board,” Wired (1996)

POST
Search out a city or region, anywhere in the world, that at one time or another called itself “Silicon ____.” Find out what you can about this place and its high-tech ambitions, and whether they were realized. Write a microhistory with relevant links that introduces your class colleagues to this Silicon Something.

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**Week Ten: Big Tech and beyond**

Tue Mar 8: The rise of social networking
Tue Mar 10: Software eats the world

LISTEN
1) The Ghostworkers Behind the Tech Industry, featuring Mary Gray, Innovation for All Podcast (2020)

READ

POST
Read Doreen St. Felix, “Black Teens are Breaking the Internet and Seeing None of the Profits,” *Fader* (2015). Six years later, creators on TikTok and other online networks are similarly setting trends and not necessarily profiting. Contextualize who is “influencing” and making money online in 2021 within what you have learned this quarter about the animating ideas and political economy of the early internet, and the political and economic context of its commercialization since the 1990s. How does this history help us better understand today’s balance of online power and profit? What might it tell us about how to change the digital world for the better?

FINAL PROJECT due Wednesday of Exam Week, March 16, at 11:59PM

*Class policies, grade scale, and more can be found on the HSTAA 317 Canvas site.*