CS115/MAS115: Computing for The Socio-Techno Web

WHAT’S IT ALL ABOUT?
INTRODUCTIONS

Course staff:

• **Lecturer:** Catherine Delcourt
  Please call me Catherine!

• **Lab instructor:** Stella Kakavouli

• **TAs:** Cseca Gazzolo, Jackeline Lopez Ruiz, Nicole Li
INTRODUCTIONS

Tell us:
Your name
Your year
Your hometown

Remember to fill out the Entry Questionnaire:
PRE-REQS

• No pre-requisites
• No prior CS experience expected

Helpful background knowledge:
• Basic arithmetic
• Basic computer knowledge
  • How to use your Operating System
  • How to use a Web Browser
  • Understanding of files and folders
• Some understanding of social media
  • Have some social media accounts
  • Use social media or communication technologies regularly
  • Have had some reflection on your social media usage
• Solid writing and communication skills
WHAT IS THIS CLASS ABOUT?

Technical concepts:
• How computers work and data representation
• Basics of programming and computational thinking
• How the Internet works, protocols and security

Social concepts and historical context:
• History of computing, the Internet, and the web
• Digital traces we leave behind and privacy implications
• Information spread, credibility, and filtering
• Algorithms, artificial intelligence, and ethics
This semester, we will discuss current online events and the social implications of recent technologies. These discussions may be disturbing to some students.

If you feel the need to step outside during one of these discussions, you may always do so. You will be responsible for any material you miss.

If you wish to discuss your reaction, I welcome you to bring it up with me privately during office hours or, as appropriate, during class.
GOALS OF THE CLASS

• To empower you in your use of the tools of the Internet and the Web
• To help you understand how computers think
• To help you understand how the Social Web works
• To help you appreciate the changes technologies bring to society
• To be able understand and critically think about information online
• To excite you so that you may pursue a related field in the future
• To satisfy the Math Modeling or MAS requirement
• To have fun!
The Five Largest Industrial Corporations

2007

1. Petrochina  $724B
2. Exxon/Mobil  $512B
3. General Electric  $375B
4. China Mobil  $354B
5. Commercial Bank of China  $339B
The Five Largest Industrial Corporations

2017

1. Apple $801B
2. Alphabet $680B
3. Microsoft $540B
4. Amazon $476B
5. Facebook $409B
NOT A FOCUS IN THIS CLASS

• Building advanced websites (CS204)
• Extensive practice with user experience or web design (CS220)
• Python programming or intro to the CS major (CS111)
GRADING POLICY

Course website: http://cs.wellesley.edu/~cs115/

- Class participation (20%)
- A take-home midterm (10%)
- A final exam (20%)
- A final paper (20%)
- Homework assignments (30%)
GRADING POLICY

Course website:  http://cs.wellesley.edu/~cs115/

- Class participation (20%)
  - Be in class (Mon and Thu 11:10AM or 1:30PM)
  - And in your lab (Tue 8:30AM or 9:50AM or 11:00AM)!!!!!!!!!!!!!!!!!
  - Read assigned reading and news item before class
  - Participate actively in discussion based on your reading
  - Complete the weekly reflections
LATENESS POLICY

Course website:  http://cs.wellesley.edu/~cs115/

- For assignments: 3 late passes
- For the midterm: let me know NOW about any schedule issues
- For the team project: work it out with your team (or talk to me)
READING MATERIAL

Web pages, Handouts, news items and papers

Blown to BITS
(available online)

Weaving the Web
(available online)
LET’S GET STARTED!

What comes to your mind when you hear the word “computer”? 
EARLY COMPUTERS

ENIAC 1946
The first programmers of the ENIAC:
Francis “Betty” Snyder Holberton
Betty “Jean” Jennings Bartik
Kathleen McNulty Mauchly Antonelli
Marlyn Wescoff Meltzer
Ruth Lichterman Teitelbaum
Frances Bilas Spence

“There was no language, no operating system, no anything. The women had to figure out what the computer was, how to interface with it, and then break down a complicated mathematical problem into very small steps that the ENIAC could then perform.” They physically hand-wired the machine, an arduous task using switches, cables, and digit trays to route data and program pulses.

EARLY COMPUTERS

Who is this?
EARLY COMPUTERS

Katherine G. Johnson

https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19980227091.pdf
PERSONAL COMPUTING

Mac 128K, 1984

MacBook Pro, 2017
16GB
A LONG WAY SINCE MAC 128K
MOBILE COMPUTING
INTERNET OF THINGS
TO-DO

Create an account on the CS Webserver
http://cs.wellesley.edu/accounts/account-request.html
will need it for lab and assignments!

Lab tomorrow!