

# CSC300

Computers in Society

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# Who am I?

- I'm a software engineer, specializing in compilers.
  - BAsC, 1983 (Eng Sci computer option)
  - MASc, 1984 (Human Factors Engineering)
  - PhD, 2008 (JIT compilation)
- Have worked mostly in optimizing compilers since 1986
- Currently employed at Intel, working in Android for Atom 2.
  - Down to part time to teach this class. Why this course you ask?
- NOT professor. Call me "Mr" if you must. "Dr" if absolutely insist.
  - "Mathew" is preferred.

# Who are you?

- HCI specialists?
- Other students of CS?
- Engineering students?
- Non CS or engineering?
- Sociology students?
- Philosophy students?
- Future Lawyers?
- Anybody else that wants to self-identify?

# Basic Info

## General Information

Lectures: L0101 Wed 3-5pm SS2127

Tutorials: Wed 5-6

SS2127 (if combined)

T0101a SS1084

T0101b SS1086

## Office Hours

(let's discuss)

## Website

(discuss)

# Rough Plan

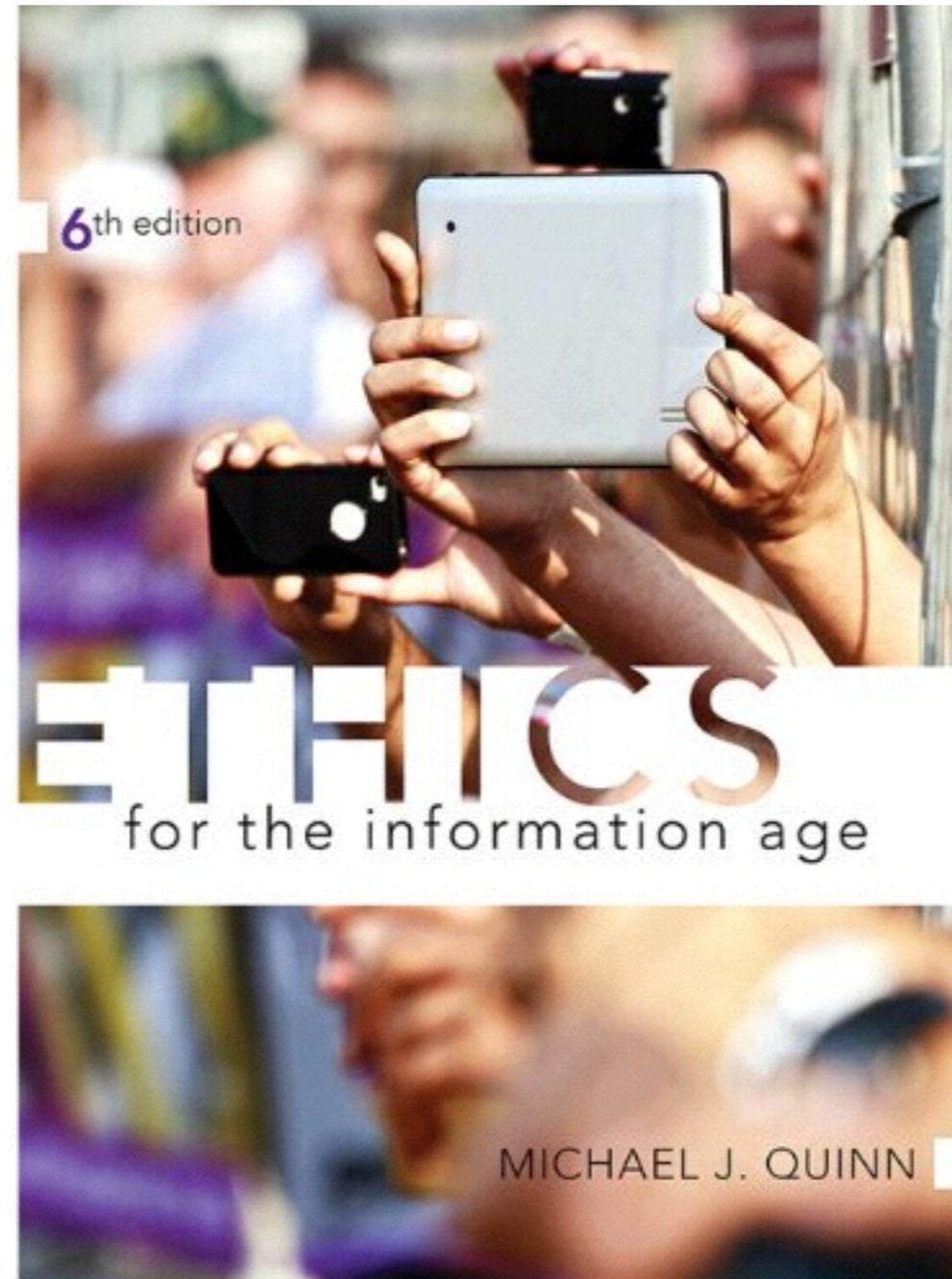
- Readings are important.
  - Lectures will not even vaguely stand on their own
- Real, honest to goodness, essay
  - TA Alicia Grub is literacy specialist
- Debates in tutorial
  - Typically, morals of real world scenarios will be debated
- 3 hour written question exam

# Mark breakdown

	Weight	Out	Due
Participation	10%		
Mid-Term Debate	20%		Oct 22/29
Essay I - Proposal	10%	Oct 1	Oct 8
Essay II - Ethical Framework	15%	Oct 8	Oct 29
Essay III - Final Report	15%	Nov 5	Nov 19
Final Exam	30%		

what do you-all think of “clickers”?

# Quinn M, Ethics for the Information Age, Pearson



NB 180 day rental [coursesmart.com](https://www.coursesmart.com)

# The technology wave hit my cohort hard

1970

1980

1990

2000

2010

1960

2014

1975 high school. No typing at NTCl. (Tech school)

1977 start EE program. Apple II first available. Punch cards. DEC timesharing

1978 arts and science essays done on electric typewriters. white erase is a breakthrough

1981 IBM PC ships 1981.

1983 modems are fast enough to be useful. expensive. (More than computer)

Unix escapes from Bell labs. I'm a sysadmin at Industrial Engineering

First time I work from home.

1984 First Apple mac. I get one.

1986 RISC computer "revolution"

1990 windows 3

1991 linux project started

1992 trumpet winsock

1993 first handheld cell phone demonstrated

1994 HTTP

lots more..

2003 Android founded

2007 iphone ships

# Goals

- We can discuss this right now! What do you want to learn?
- Ethics? How to decide what is right vs wrong?
- Intellectual property, digital rights management
- Copyright. *Really?*
  - Tradeoff between encouraging new product and what's right
- Open source vs proprietary
- Writing prose argument

# Arpanet

- US Department of Defense - 1969
- Opened to commercial interests in late 80s

# Internet - the 80s

- UNIX / C / sockets
- Mail, Bitnet, Usenet, DNS

# World Wide Web

- HTTP by Tim Berners-Lee in 1989
  - No browser or https until ~1994
- CERN: looking for a way to *share* information
- Collection of standard protocols for moving content
- Managed by the W3C

# Internet - the 90s

- Netscape - 1995
- Javascript
  - Javascript is NOT java!
- Sessions -> first web apps
- Web Services -> distributed systems
- XML -> data on the web

# Internet - the 00s

- APIs
- Distributed Systems
- Vertical Integration
- Social Web

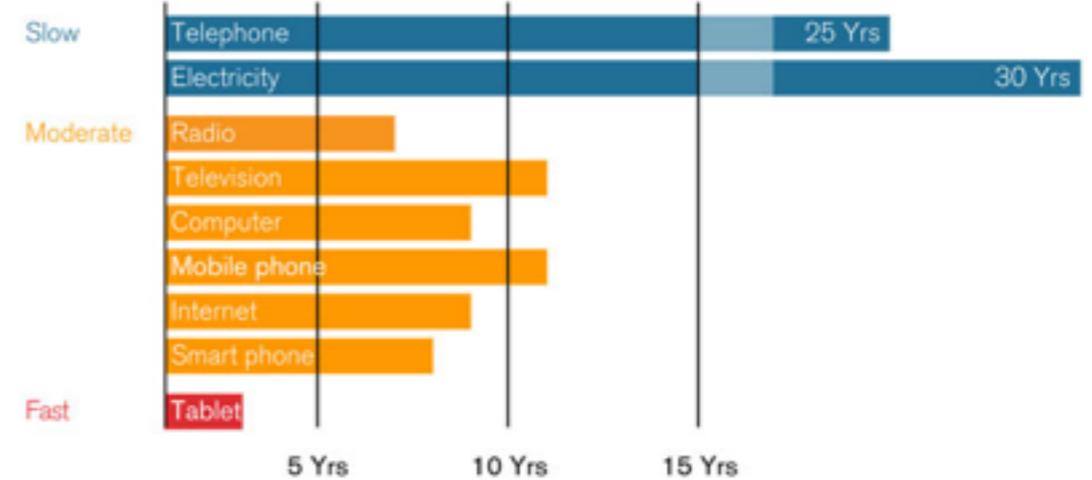
# Mobile

- iPhone
- sensors
- cloud services

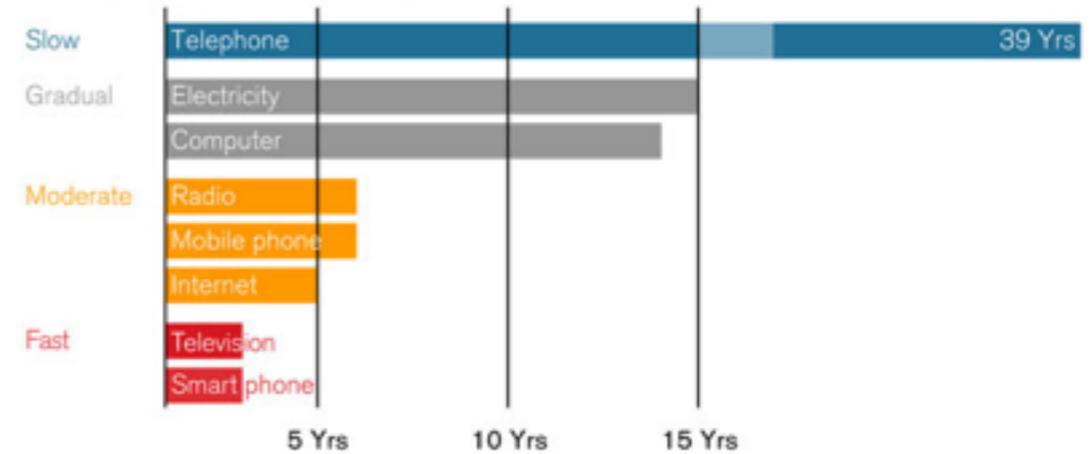
## U.S. Technology Adoption Rates

U.S. market penetration for nine technologies shows the speed at which they gained traction, reached maturity, and achieved saturation. Data through 2010.

**Traction:** Time from consumer availability to 10% penetration

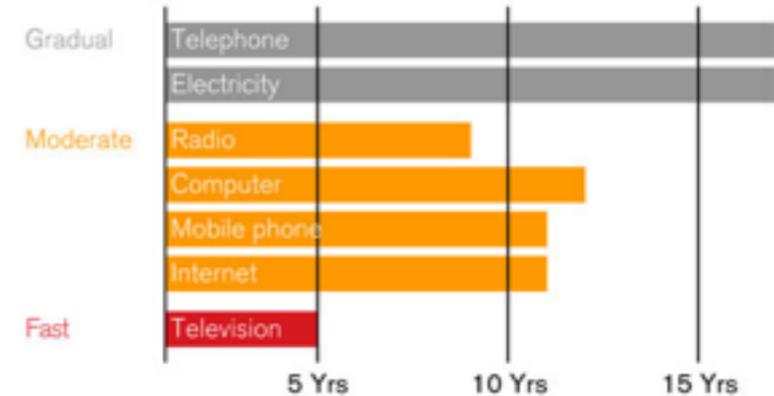


**Maturity:** Time from 10% to 40% penetration



Tablets are omitted, having achieved the 10% traction threshold in 2011.

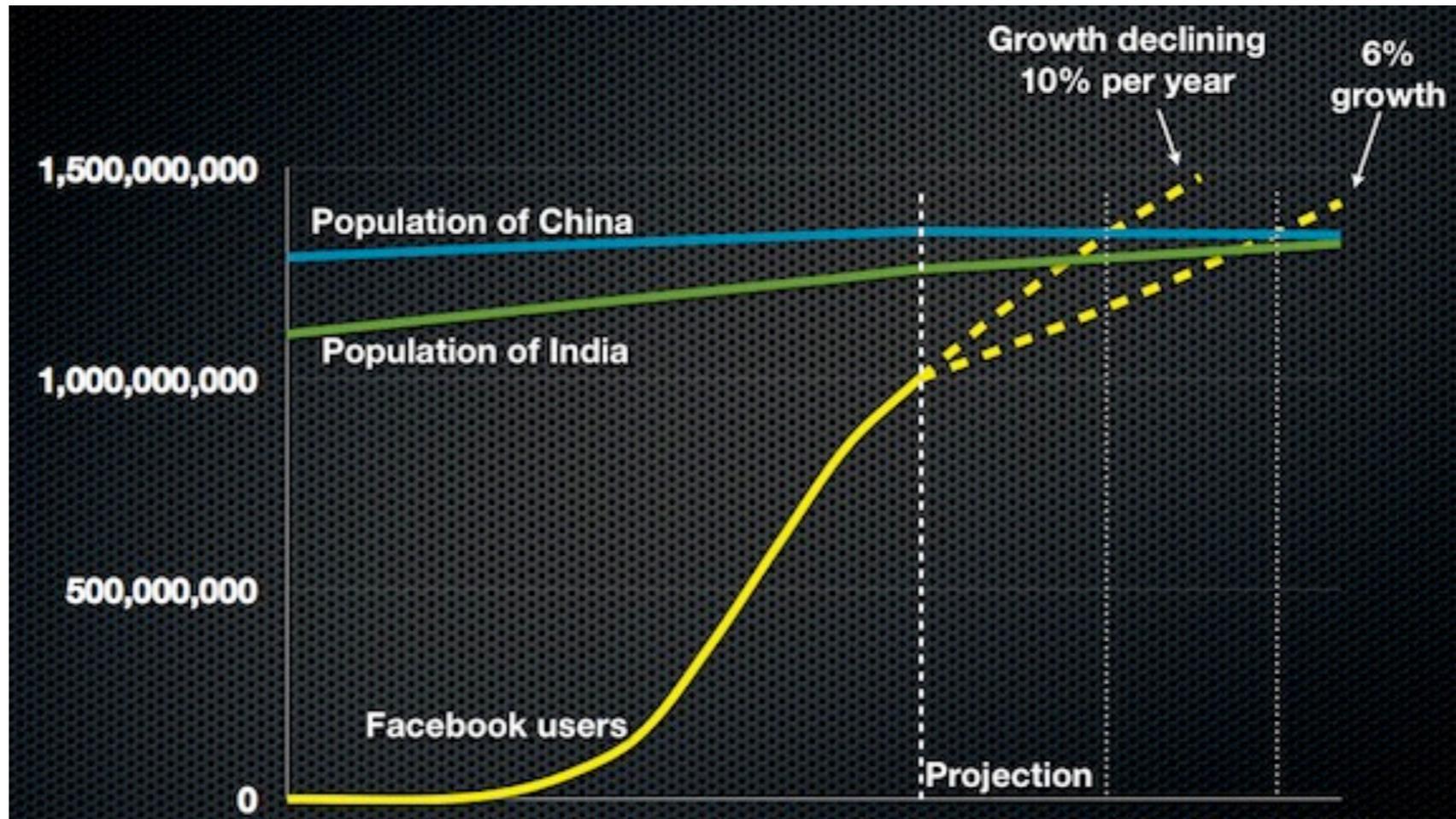
**Saturation:** Time from 40% to 75% penetration



Smart phones are omitted, having achieved the 40% maturity threshold in 2011.

Sources: ITU, New York Times, Pew, Wall Street Journal, U.S. Census Bureau

\*Market penetration is percent of U.S. households (telephone, electricity, radio, TV, Internet) or percent of U.S. consumers (smart phone, tablet).



<http://royal.pingdom.com/2013/02/05/facebook-2016/>