

Social Impact of Computing

Purpose of Computers

- What are computers for?
- Who are they supposed to benefit?

Purpose of Computers

- What are computers for?
 - Computers do very well at automating repetitive tasks
 - Computers are able to give people access to information and services without the need for human assistance
 - Computers enrich our lives by providing tools and technology to creatives
 - Computers create convenience (i.e., humans spend less time doing menial tasks)
- Who are they supposed to benefit?

Purpose of Computers

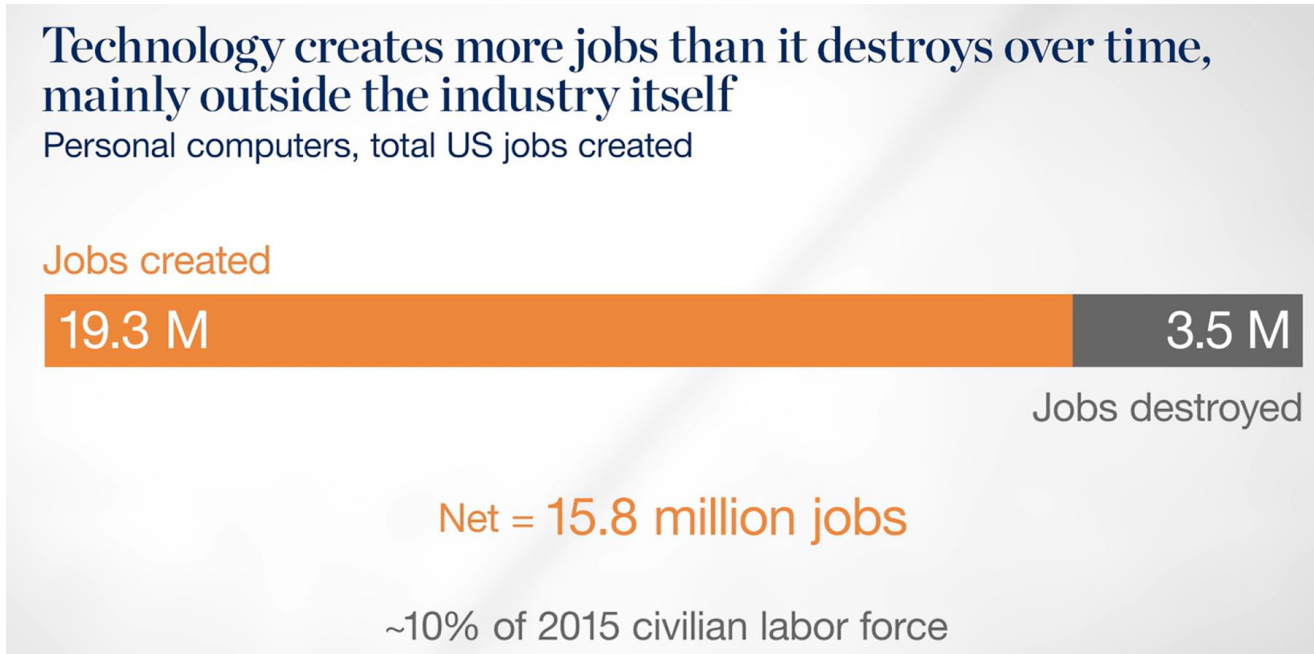
- What are computers for?
 - Computers do very well at automating repetitive tasks
 - Computers are able to give people access to information and services without the need for human assistance
 - Computers enrich our lives by providing tools and technology to creatives
 - Computers create convenience (i.e., humans spend less time doing menial tasks)
- Who are they supposed to benefit?
 - Primarily humans, i.e. people
 - Individuals
 - Society
 - Humanity
 - The Environment

Employment and Jobs

- Are computers/robots coming for our jobs!?

Employment and Jobs

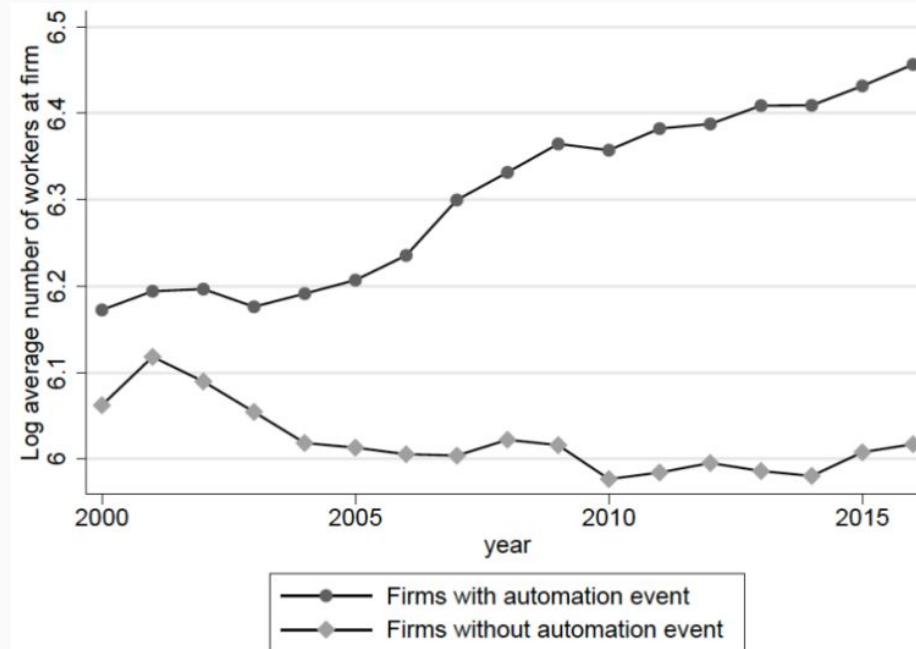
- Are computers/robots coming for your jobs!?



Source: IPUMS USA 2017; US Bureau of Labor Statistics; McKinsey Global Institute analysis

Employment and Jobs

Employment at firms making major automation investments and not, Netherlands



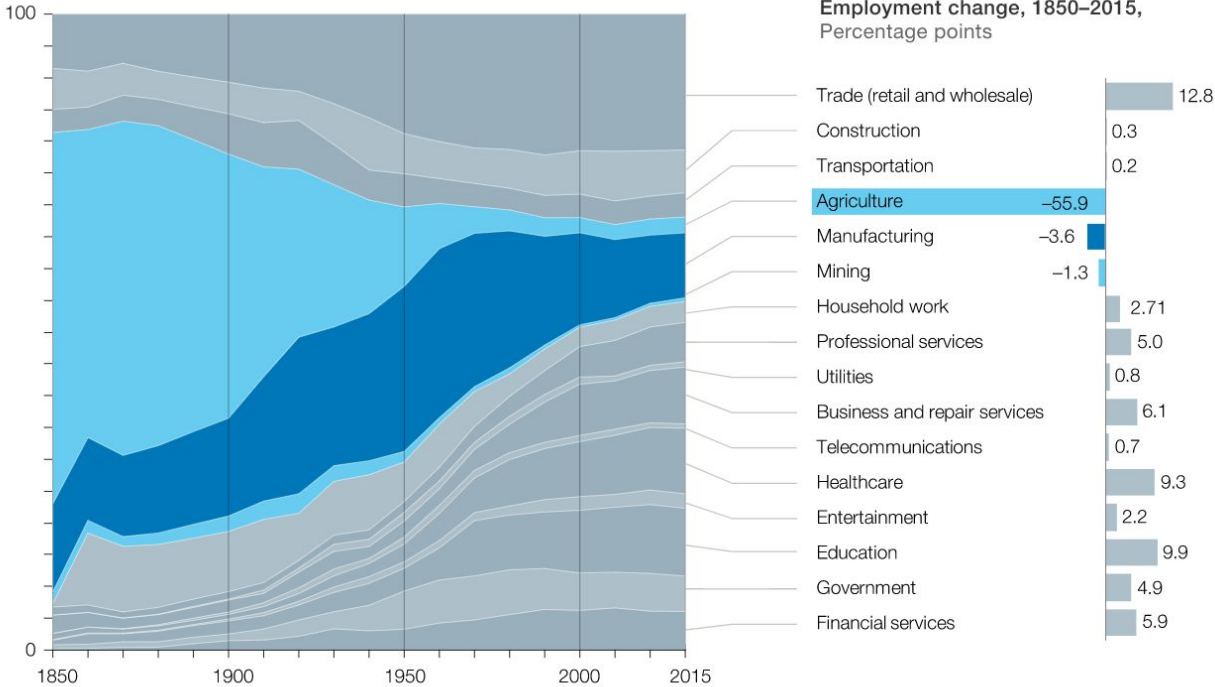
Source: "Automation: A Guide for Policymakers," Bessen, Goos, Salomons, and van den Berge (2019)

Employment and Jobs

- Technology creates entirely new sectors of industry to support itself
- Technology creates entirely new jobs outside of itself
- Technology does automate tasks and create less of a demand (by companies/government) for jobs that were responsible for those tasks which displaces workers

Employment and Jobs

Share of total employment by sector in the United States, 1850–2015, % of jobs



Employment and Jobs

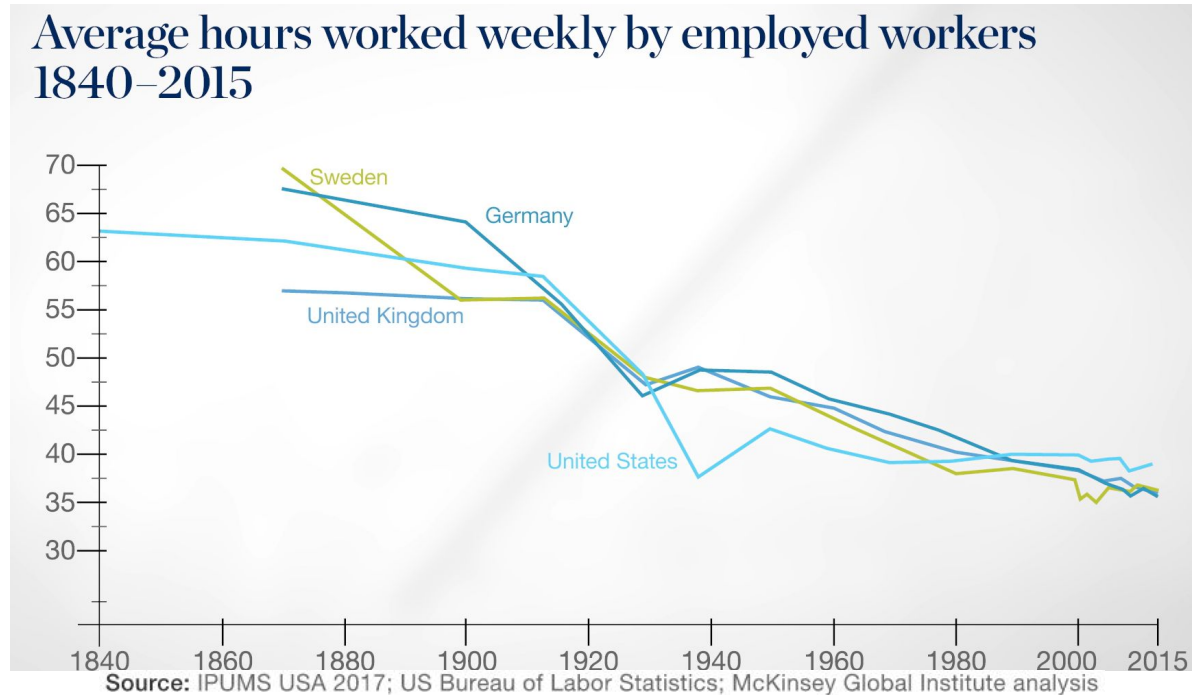
- As technology advances and permeates the lives of people, in general, agriculture jobs shift to manufacturing/industrial jobs, and then manufacturing/industrial jobs shift to service jobs
- Technology often creates heavier mental burden/work over physical burden/work

Employment and Jobs

- Do computers/robots make people lazy?

Employment and Jobs

- Do computers/robots make people lazy?



Employment and Jobs

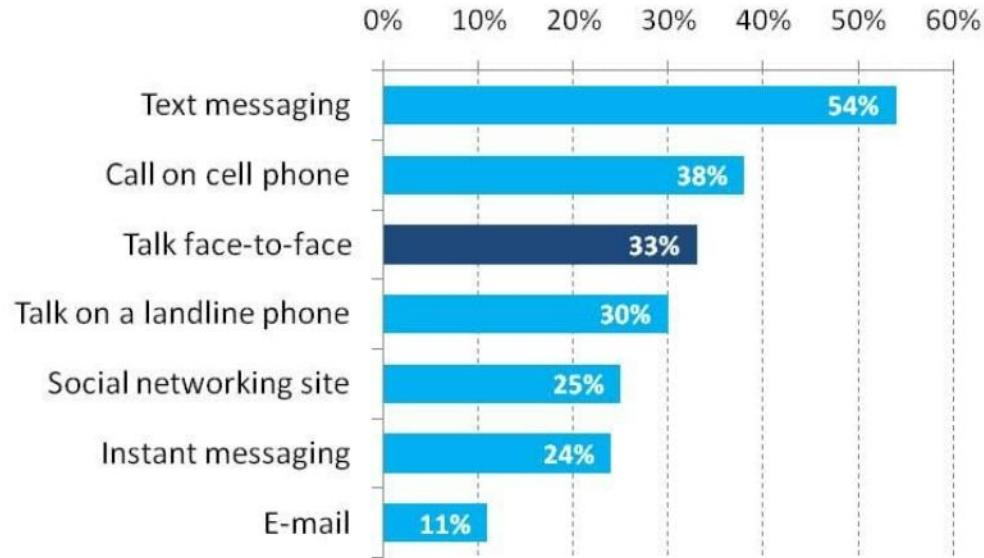
- Technology allows people to perform tasks much quicker
 - Technology allows people can get the same amount of work done in less time
- Technology allows people to have more time for leisure and hobbies while still doing the same amount of work

Social Interaction

- Technology has drastically shifted the way we communicate
- Texting has become the primary, dominant form of communication in our society
- Crime, such as scam calls, have drastically changed

Social Interaction

Percent of all teen who used each communication method to contact their friends daily

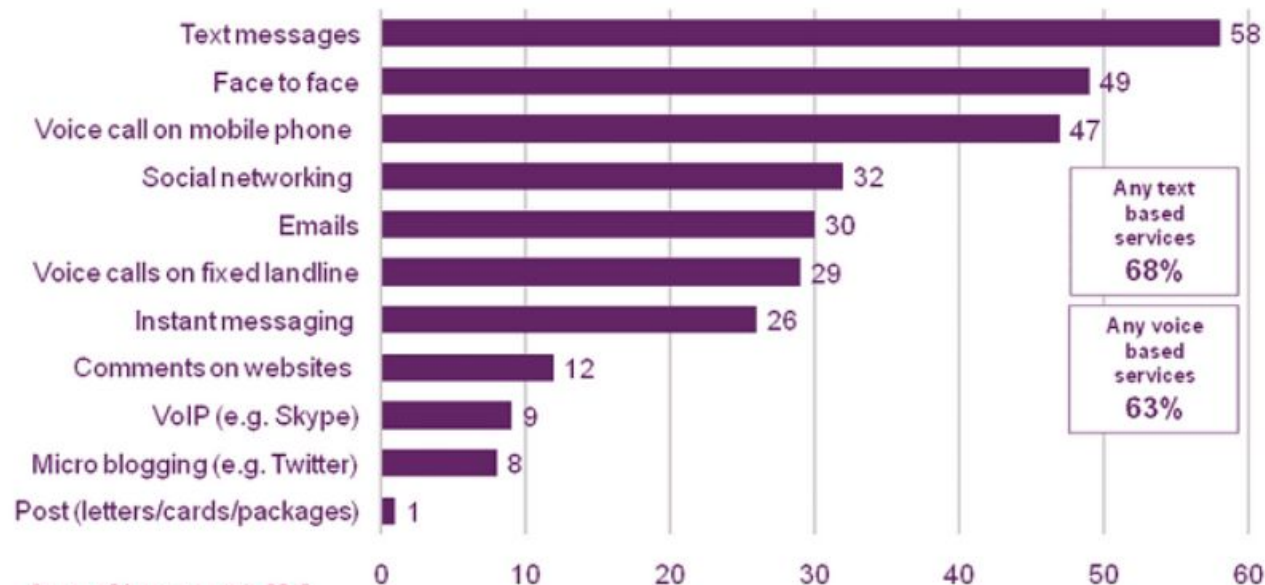


Source: Pew Internet and American Life Project, September 2009

Social Interaction

Methods used at least once a day to communicate with friends and family

% of adults



Source: Ofcom research, 2012

Q2a: How often do you use x to communicate with friends and family?

Base: UK adults aged 16+ who communicate, n = 1980

Any text based services: text messages, social networking, emails, instant messaging, comments on websites, micro-blogging, post

Any voice-based services: voice calls on mobile, voice calls on fixed landline, VoIP

Social Interaction

Total Americans That Lost Money to Scam Calls



Source: Truecaller Insights/Harris Poll