



CSCI 215

Social and Ethical Issues in Computer Science

privacy



Right to Privacy

- The essence of the law derives from a *right to privacy*, defined broadly as "the right to be let alone." It usually excludes personal matters or activities which may reasonably be of public interest, like those of celebrities or participants in newsworthy events. Invasion of the right to privacy can be the basis for a lawsuit for damages against the person or entity violating the right.

taken from wikipedia



To Be Left Alone

- Practice all proper online precautions. But on retail websites, we cheerfully part with credit-card and contact details, and accept that texts and e-mail messages may well be read by prying busybodies (whatever good that may do them).
- Resent the way mass-marketers build pictures of his buying habits, but find their recommendations for further purchases mildly amusing, sometimes even useful.
- Quit using social networks, not through fear of identity theft, but when the return on investment (of time) became too low and the threshold of gibberish too high.

Taken from <https://www.economist.com/science-and-technology/2015/01/19/the-right-to-be-left-alone>



Privacy as Concealment

- Judge Richard Posner
 - is an influential legal theorist and author and in 2008 (when video filmed) a judge on the United States Court of Appeals for the Seventh Circuit.
 - Law professor at Univ of Chicago
 - He believe there is no fundamental right to privacy and that people are interested in privacy only because they want to conceal their own wrongdoing or prevent embarrassment.



Privacy as Concealment

- <https://bigthink.com/videos/judge-richard-posner-privacy>



Privacy

- Email
 - Should your email be private?
 - Professor Blake teaching computer security
 - Shows students how easy it is to intercept email.
 - Assignment – hack into emails on university server?
 - Do you consider this a breach of privacy? Why or why not?



Facebook

- Sept 2006 - debuts news feed
 - An estimated 1 million users joined "Facebook News Feed protest groups," arguing the feature was too intrusive. But Facebook stayed the course.
- Beacon – Dec 2007
 - Using Beacon, companies could track purchases by Facebook users and then notify their Facebook friends of what had been bought -- many times without any user consent.
 - In an apology on Dec. 6, 2007, Zuckerberg explained his thought process behind the program, called Beacon, and announced that users would be given the option to opt out of it
- Nov 2011 – Facebook settles Federal Trade Commission privacy charges
 - Facebook settled with the Federal Trade Commission in 2011 over charges that it didn't keep its privacy promise to users by allowing private information to be made public without warning.
 - Regulators said Facebook falsely claimed that third-party apps were able to access only the data they needed to operate. In fact, the apps could access nearly all of a user's personal data. Facebook users that never authenticated a third-party app could even have private posts collected if their friends used apps. Facebook was also charged with sharing user information with advertisers, despite a promise they wouldn't.
 - As part of the agreement in 2011, Facebook remains liable for a \$16,000-per-day penalty for violating each count of the settlement



Facebook

- July 2013 – Facebook bug exposes private contact info
 - A bug exposed the email addresses and phone numbers of 6 million Facebook users to anyone who had some connection to the person or knew at least one piece of their contact information.
 - The bug was discovered by a White Hat hacker — someone who hacks with the intention of helping companies find bugs and build better security practices.
 - When people joined Facebook and uploaded their contact lists, Facebook explained it would match that data to other people on Facebook in order to create friend recommendations.
 - Facebook pulled the tool offline and fixed it. The company also notified regulators and pledged to tell affected users



Facebook

- July 2014 – Mood manipulation experiment
 - included more than half a million randomly selected users. Facebook altered their news feeds to show more positive or negative posts. The purpose of the study was to show how emotions could spread on social media. The results were published in the Proceedings of the National Academy of Sciences, kicking off a firestorm of backlash over whether the study was ethical.
- April 2015 – removes apps that take data from others
 - In 2014, Facebook cited privacy concerns and promised it would limit access to developers. But by the time the policy took effect the next year, Facebook had one big issue: It still couldn't keep track of how many developers were using previously downloaded data



Facebook

- March 2018 – facebook knew about massive data theft and did nothing (data harvesting scandal)
 - Facebook announced in April 2018 that user data for as many as 87 million people may have been "improperly shared" with Cambridge Analytica, a data analysis firm that worked with President Donald Trump's 2016 presidential campaign.
 - Jan 2019 – FTC looking at how big a fine for facebook
 - **Facebook is starting a new institute devoted to the ethics of artificial intelligence at the Technical University of Munich in Germany.**



Facebook

- What other news do you know about with Facebook?



Privacy

- Is it a violation of privacy for someone to get your location/phone number off the internet?
- Is it a violation of privacy to use long range cameras to take pictures of celebrities and post them on the internet?
 - And make money off these pictures?
- Is it a violation of privacy for potential employers to look at your facebook, Instagram accts?



Tracking Apps

- Uses network of GPS satellites
 - for smartphones, computers, smart watches
 - detect a person's location in real time



Top Tracking Apps

- <https://www.mobileappdaily.com/best-location-tracking-apps>



Benefits

- What is good about this technology?
 - finding directions
 - locate misplaced or stolen devices
 - locate missing individuals.



Issues

- What issues do you see with this technology?
- How could it violate your right to privacy?

Which ACM Code of Ethics Principles could this technology violate?



- Contribute to society and to human well-being, acknowledging that all people are stakeholders in computing.
- Avoid harm.
- Be honest and trustworthy.
- Be fair and take action not to discriminate.
- Respect the work required to produce new ideas, inventions, creative works, and computing artifacts.
- Strive to achieve high quality in both the processes and products of professional work.
- Maintain high standards of professional competence, conduct, and ethical practice.
- Know and respect existing rules pertaining to professional work.
- Respect privacy.
- Honor confidentiality.
- Accept and provide appropriate professional review.
- Give comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks.
- Perform work only in areas of competence.
- Foster public awareness and understanding of computing, related technologies, and their consequences.
- Access computing and communication resources only when authorized or when compelled by the public good.
- Design and implement systems that are robustly and useably secure.



COVID 19 Tracking Apps

- April 2020 – Apple and Google collaborate to create coronavirus tracking technology
 - helps people determine if they have been exposed to COVID-19
 - alerting the user of possible exposure to someone who has tested positive or came in contact with COVID-19
- August
 - Virginia – COVIDWISE
(<https://www.vdh.virginia.gov/covidwise/>)
 - N Dakota and Wyoming – Care19 Alert
 - Alabama – GuideSafe
 - Nevada – COVID Trace

What are the benefits and issues with this particular type of tracking app?