

Networked Communications

Lecture 3-1

Computers & Society (CPSC 430)

Kevin Leyton-Brown (Section 101)

<https://www.cs.ubc.ca/~kevinlb/teaching/cs430>

Recap

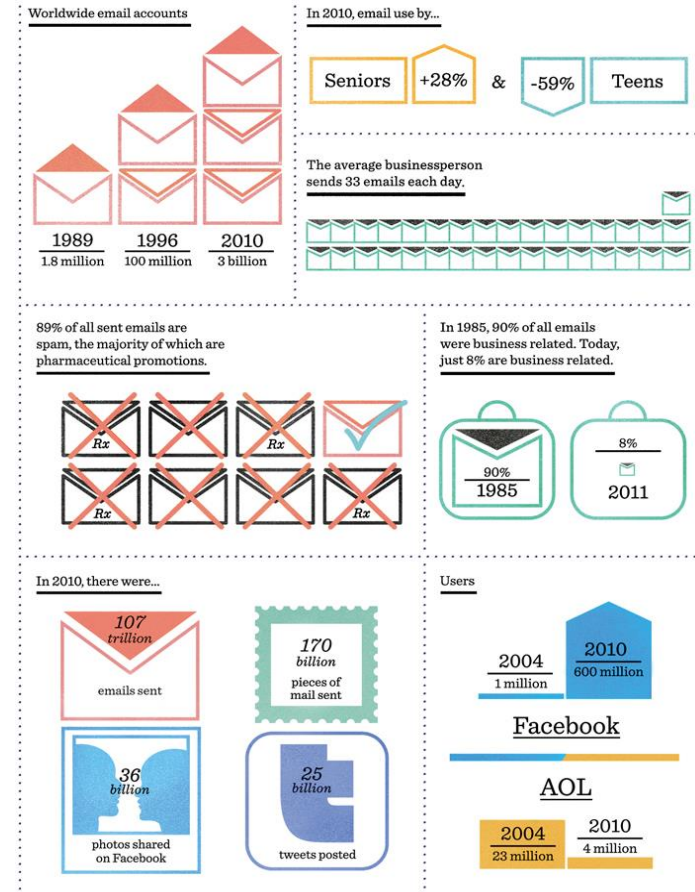
- Define:
 - Kantianism
 - Act Utilitarianism
 - Rule Utilitarianism
 - Social Contract Theory
 - Virtue Ethics
- What's the “right” theory to use?

So much for ethical theories. Let's transition to:

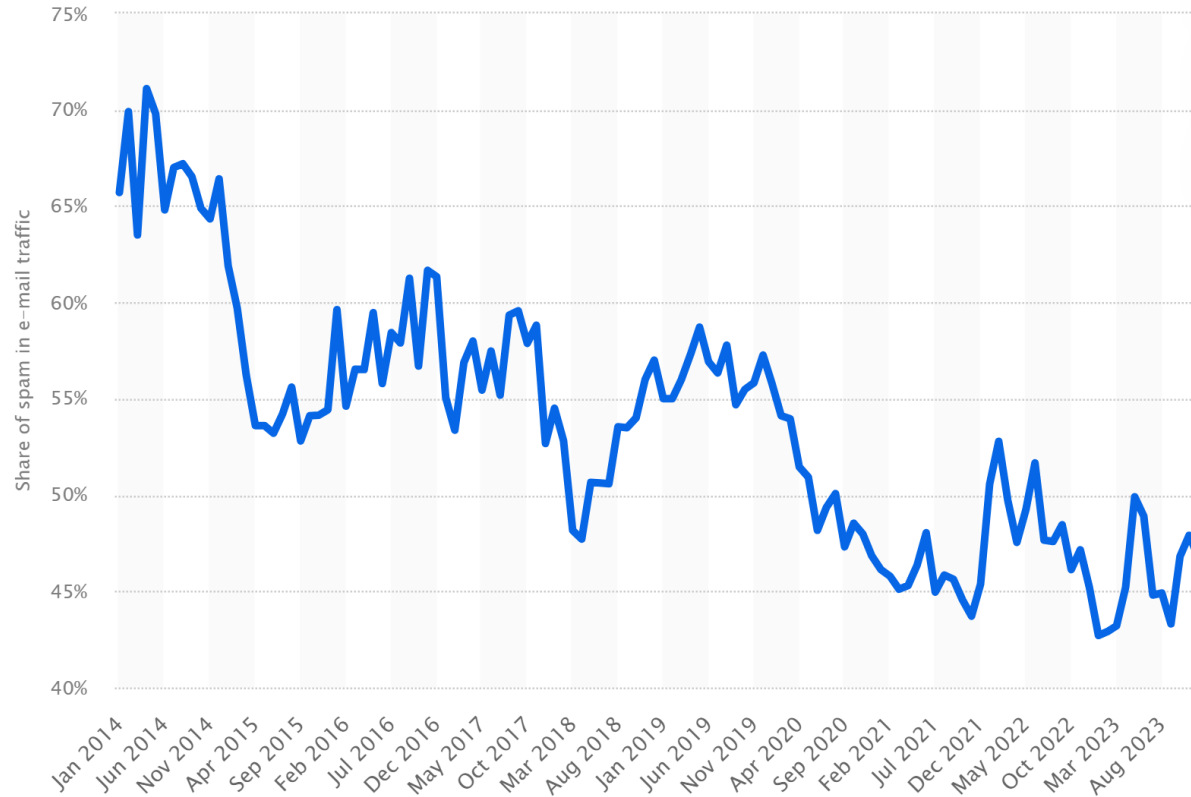
NETWORKED COMMUNICATIONS

The Spam Epidemic

- Spam: Unsolicited, bulk email
- Spam is profitable
 - More than 100 times cheaper than “junk mail”
 - Profitable even if only 1 in 100,000 buys
- Amount of email that is spam has grown rapidly
 - 8% in 2001
 - 90% in 2009

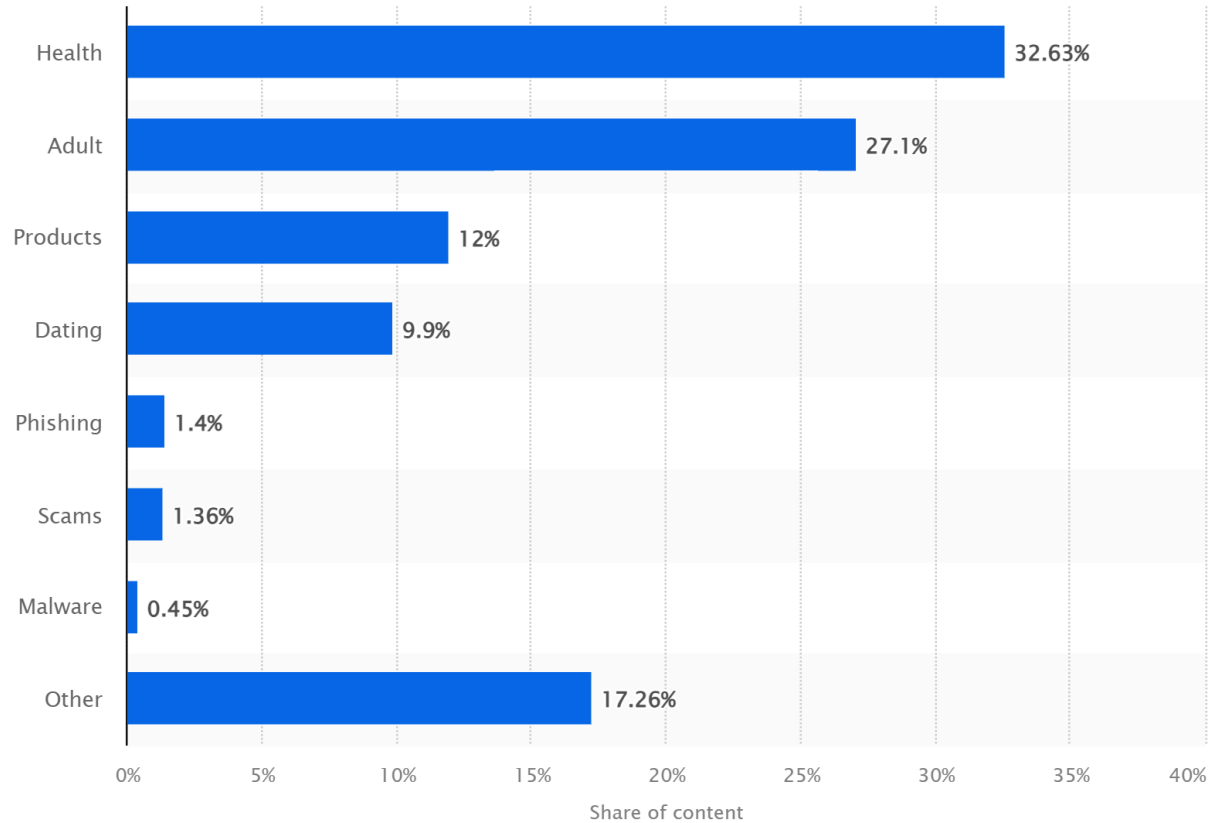


...but things have gotten (somewhat) better



source: <https://www.statista.com/statistics/420391/spam-email-traffic-share/>
<https://securelist.com/spam-and-phishing-in-q3-2020/99325/>

Main Spam Categories



Canadian Context

- **Canada's Anti-Spam Legislation (2014) prohibits companies from:**
 - sending commercial electronic messages without consent, including emails, social networking accounts and text messages;
 - alteration of transmission data in an electronic message, which results in the message being delivered to a different destination without express consent;
 - installing computer programs without express consent;
 - promoting products or services online using false or misleading representations;
 - collecting personal information by accessing a computer system or electronic device illegally;
 - collecting or using electronic addresses using computer programs without permission ('address harvesting').
- Source: http://fightspam.gc.ca/eic/site/030.nsf/eng/h_00039.html

Ethical Evaluations of Spamming

The book argues from each perspective that spamming is wrong. Let's see if we can make the arguments ourselves:

- Kantian evaluation
- Act utilitarian evaluation
- Rule utilitarian evaluation
- Social contract theory evaluation
- Virtue ethics evaluation

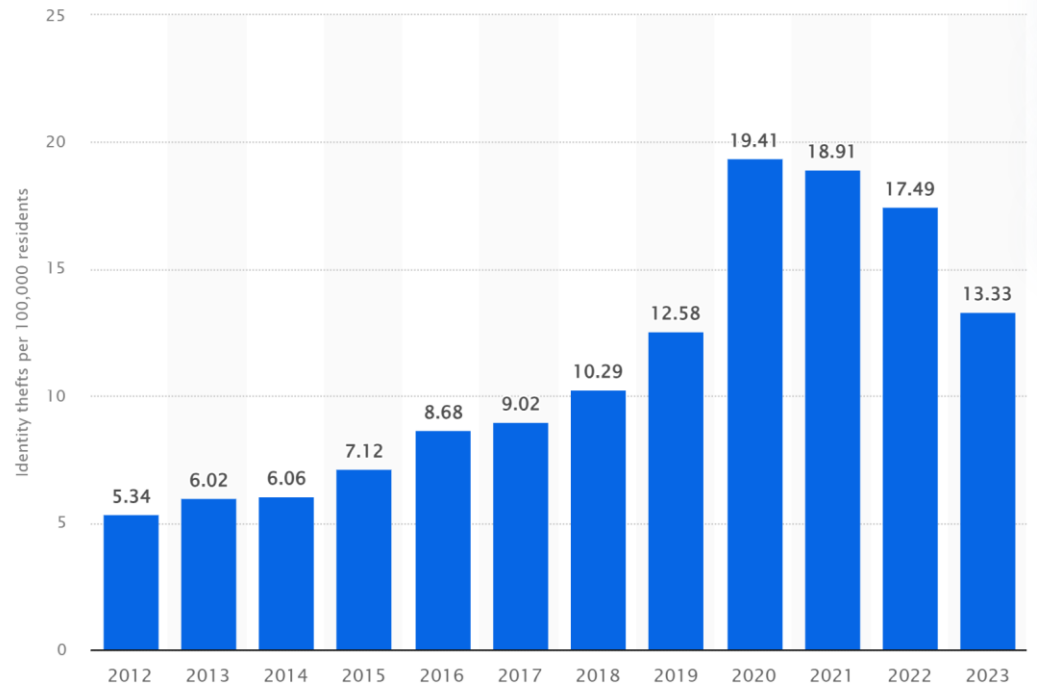
Which of these do you find most/least convincing?

Need for Socio-Technical Solutions

- New technologies can cause social change
 - Calculators → feminization of bookkeeping
 - Telephones → blurred work/home boundaries
- Spam is an example of this phenomenon
 - Email messages practically free
 - Profits increase with number of messages sent
 - Strong motivation to send more messages
- For communications to be perceived as fair, they need to be two-way (allowing consequences for misuse)
 - Internet design allows unfair, one-way communications

Identity Theft

- Identity theft: when a person uses another person's electronic identity
- Phishing: use of email to attempt to deceive people into revealing personal information



source: <https://www.statista.com/statistics/544904/identity-theft-rate-canada/>

Child Sex Abuse Material (CSAM)

- Recent explosion in online child sex abuse imagery
<https://www.nytimes.com/interactive/2019/09/28/us/child-sex-abuse.html>
 - 1998: 3,000 reports of child sex abuse imagery
 - 2009: over 100,000 reports
 - 2014: over 1,000,000 reports
 - 2018: over 18,400,000 reports
 - 1/3 of total ever reported; represents over 45,000,000 images
- It's important that we approach this issue with sensitivity
 - also important that we not ignore it; it's profoundly consequential
- *What factors contribute to this epidemic?*
- *Why have legal responses failed?*
- *What can be done?*

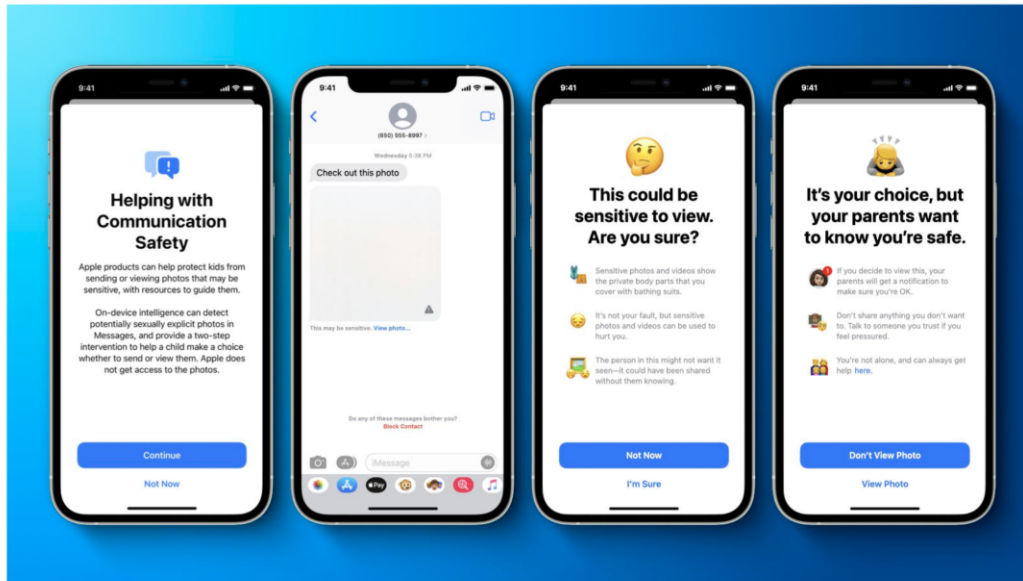
Break!

Apple and CSAM

Apple Introducing New Child Safety Features, Including Scanning Users' Photo Libraries for Known Sexual Abuse Material

Thursday August 5, 2021 12:00 pm PDT by [Joe Rossignol](#)

Apple today [previewed new child safety features](#) that will be coming to its platforms with software updates later this year. The company said the features will be available in the U.S. only at launch and will be expanded to other regions over time.



Apple and CSAM

WIRED

SECURITY POLITICS GEAR THE BIG STORY BUSINESS SCIENCE CULTURE IDEAS MERCH PRIME DAY

LILY HAY NEWMAN

SECURITY DEC 7, 2022 1:11 PM

Apple Kills Its Plan to Scan Your Photos for CSAM. Here's What's Next

The company plans to expand its Communication Safety features, which aim to disrupt the sharing of child sexual abuse material at the source.

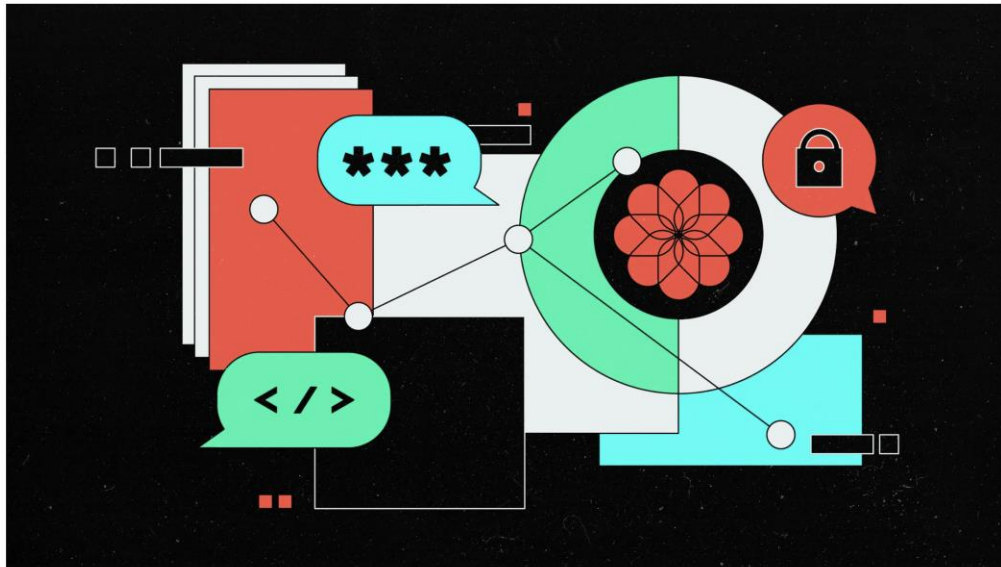


ILLUSTRATION: JACQUI VANLIEW

Sexting

- Definition: sexually suggestive text messages or emails with nude or nearly nude photographs
- In a 2009 survey, 9% of U.S. teenagers admitted to sending a sext, 17% admitted to receiving a sext
- 2018 study: 14% sending; 25% receiving
- Case of Jesse Logan
 - killed herself after ex-boyfriend shared pictures
- Case of Phillip Alpert
 - just turned 18; sent pictures of his 16 year-old girlfriend.
 - sentenced and registered as a sex offender for child pornography
- Case of Ting-Yi Oei
 - principal kept a copy of a picture as evidence
 - angry parent sued him
 - lost job over child pornography charges

How should society respond to sexting?