



澳門理工大學

Universidade Politécnica de Macau
Macao Polytechnic University

COMP422 – Ethics and Professional Issues in Computing

Chapter 3

Networked Communications

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Adopted from Pearson's Slides for teaching purposes. For the full version, please refer to the original Pearson's Slides.

Learning Objectives

3.1 Email and Spam

3.2 Internet interactions

3.3 Political impact of social media and online advertising

3.4 Censorship

3.5 Freedom of expression

3.6 Children and inappropriate content

3.7 Breaking trust

3.8 Internet addiction

Introduction

- Networked communications integral to our lives
 - Internet
 - Cellular networks
- Benefits
 - Conducting business
 - Connecting with friends and relatives
 - Entertainment
- Harms
 - Scams
 - Bullying and harassment
 - Possible threats to democratic institutions

Our Networked World



Far more people in the world have access to cell phones than to electricity or clean water. (Charles Sturge/Alamy)

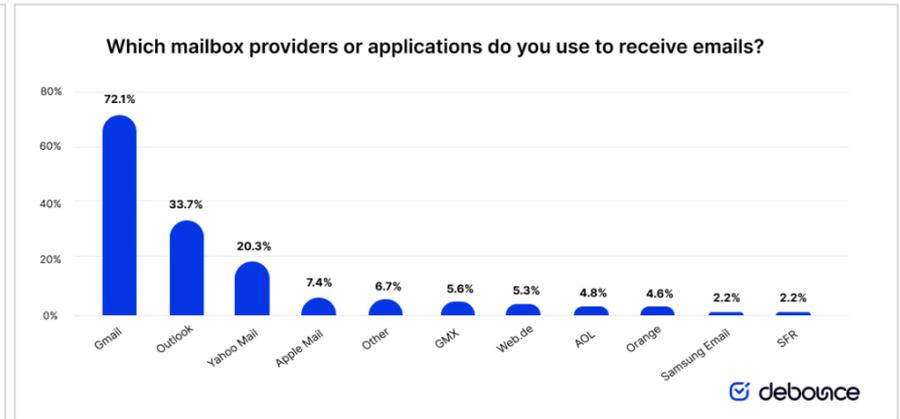
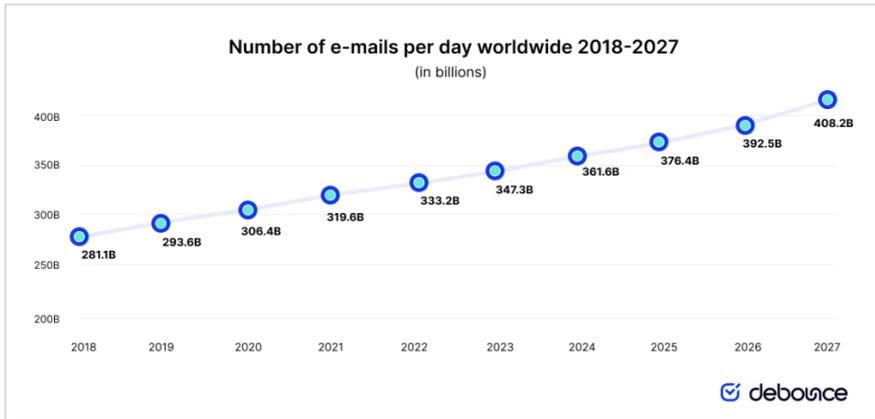
M-PESA is Revolutionizing African Banking Infrastructure

- Mobile banking service allows users to store and transfer money using mobile phones
- The largest mobile money platform in Africa (32 million users)
- Around 37% of the country's GDP passes via M-Pesa in Tanzania
- Support various services such as healthcare, bus fare, etc.
- All achieved by ensure Africans possess mobile phones.



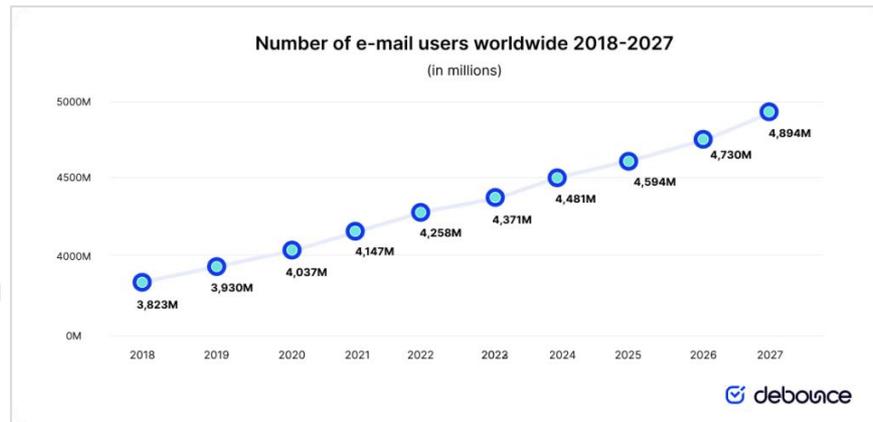
3.1 Email and Spam

Emails



By **2026**

People on earth: 8.2 billion
 Email users 4.6 billion
 Emails per day 392.5 billion



<https://www.worldometers.info/world-population/>

<https://debounce.com/blog/email-spam-statistics/>



Emails Spam

- Spam: Unsolicited, bulk email
- Often promoting scams, products, malware or phishing attack
- Spam is profitable
 - \$10-\$100 to send an ad. to a million email addresses
 - More than 30,000 times cheaper than “junk mail”



Gary Thuerk, a marketing manager at Digital Equipment Corporation, sent the first spam to 393 people on ARPANET on 3 May 1978, led to sale of 13 computers, generating millions in new business.

Individual	Team	Monthly	Annually
Standard		Most popular	Professional
\$25 / month	\$35 / month	\$55 / month	
Subscribe	Subscribe	Subscribe	
Works inside Gmail	Works inside Gmail	Works inside Gmail	

<https://www.gmass.co/blog/bulk-email-sender-pricing/>

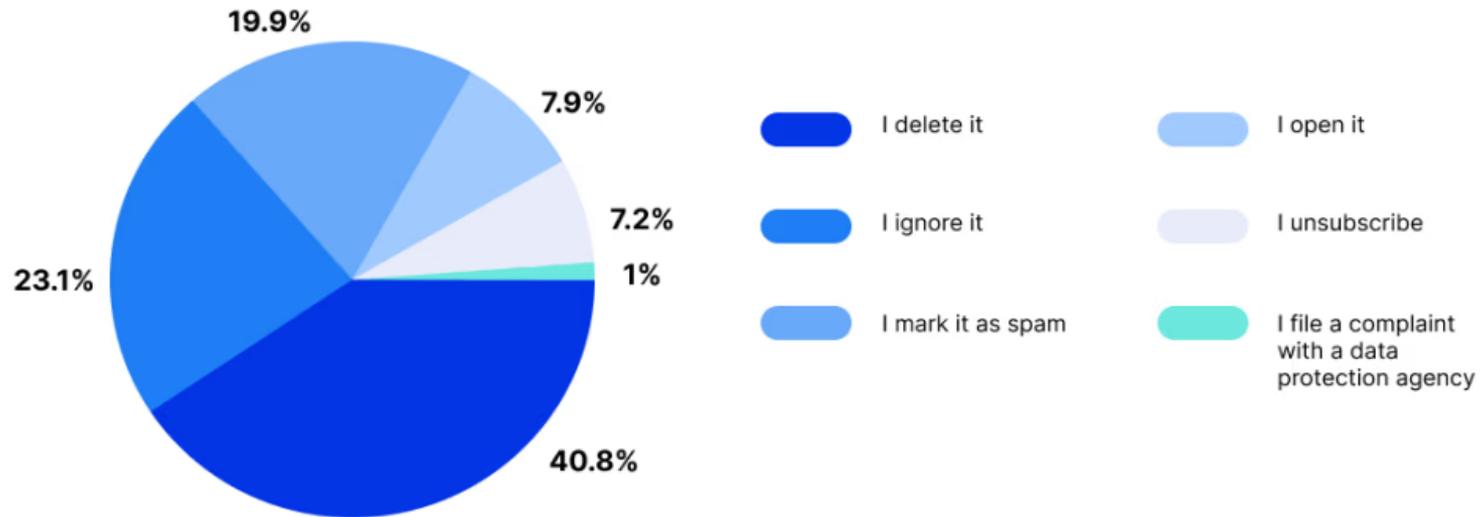
<https://www.snagged.com/post/the-history-of-email-spam-how-the-internets-most-hated-idea-refused-to-die>

The Spam Tsunami

- How do you react to spam emails?



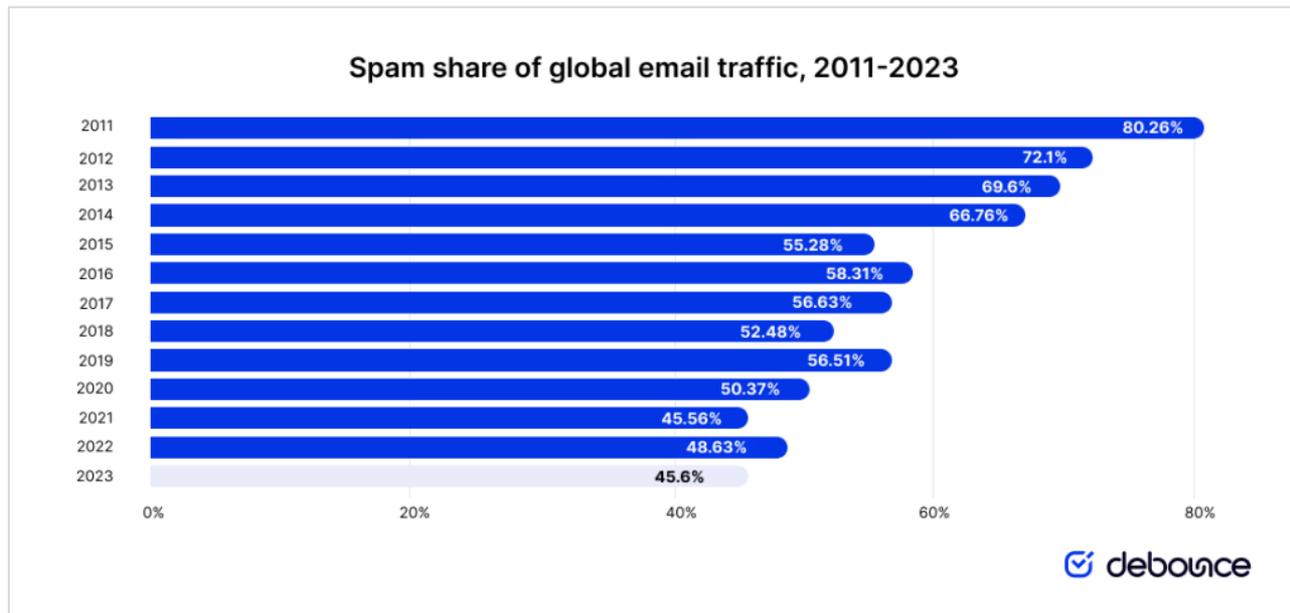
How people react to spam emails



<https://poll-maker.com/poll5706282x42D48FF5-167>

The Spam Tsunami

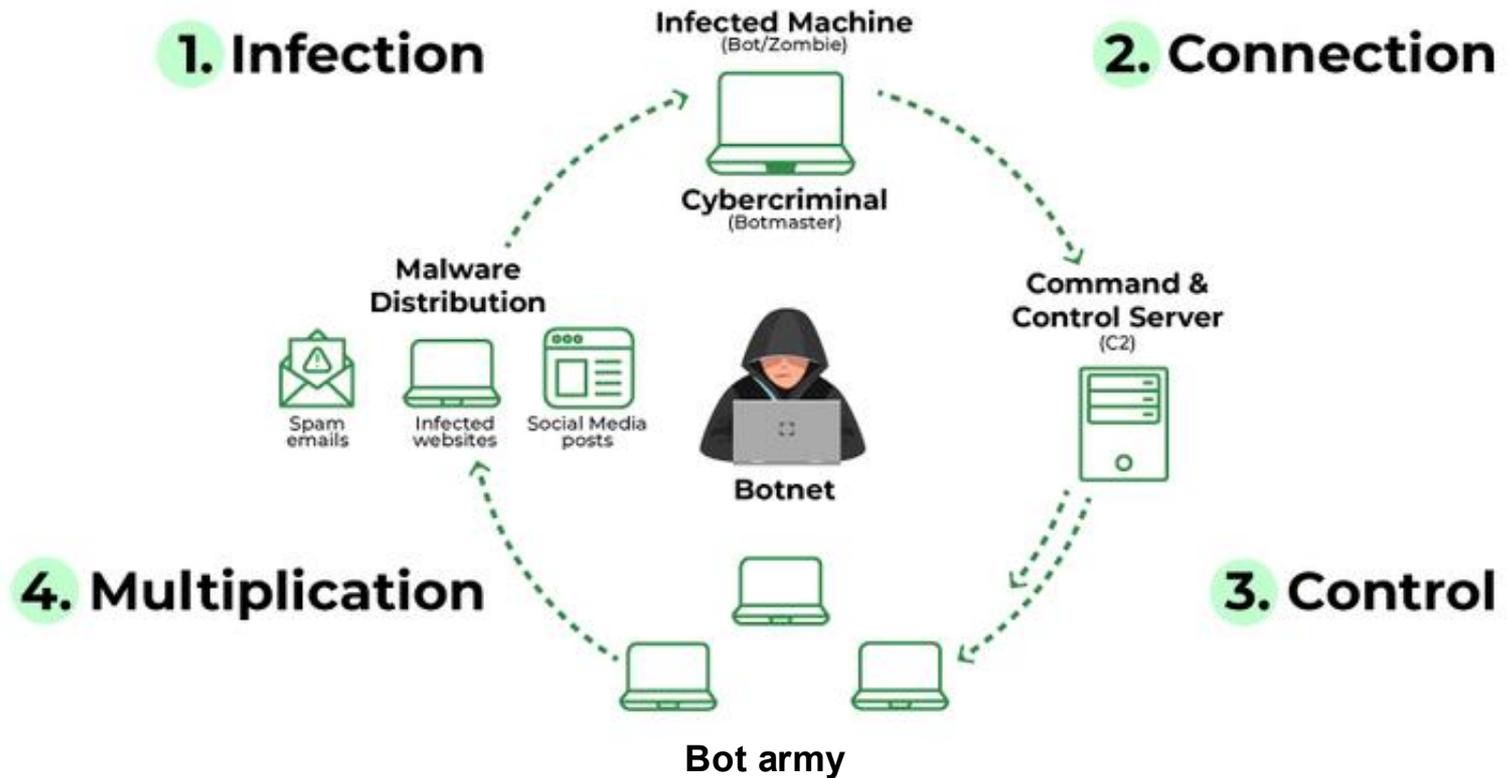
- Spam tsunami hit Internet in 2003
 - Spam only 9% of email traffic in 2002
 - Spam rose to 85% of email traffic by 2009
 - Consumed a large percentage of the Internet's bandwidth and huge amounts of storage space on mail servers and individual computers



The Spam Tsunami

- How firms get email addresses
 - Web sites, chat-room conversations, newsgroups
 - Computer viruses
 - Dictionary attacks
 - Contests
- Most spam sent by **bot herders (bot masters)** who control **botnets**: huge networks of compromised computers

How a Botnet works



The Spam Tsunami

- New software industry grew up to fight spam
- ISPs and businesses have installed spam filters
- Even with filters, wasted productivity estimated at tens of billions of dollars per year in US alone
- Law enforcement agencies around world making effort to shut down botnet command centers
- Meanwhile, spammers moving to selective email lists
- Share of spam in email traffic peaked at 85% in 2009 and has been declining since then – now (2023) around 45.6%

Need for Socio-Technical Solutions

- *New technologies sometimes cause new social situations to emerge*
 - *Calculators → feminization of bookkeeping*
 - *Telephones → blurred work/home boundaries*
- Spam an example of this phenomenon
 - Email messages practically free
 - Profits increase with number of messages sent
 - Strong motivation to send more messages
- Design of Internet allows unfair, one-way communications
 - Spammers disguise their own email addresses

Case Study: Ann the Acme Accountant

- Ann is an accountant at Acme Corporation, a medium-sized firm with 50 employees. All the employees work in the same building, and Ann knows all of them on a first-name basis. In fact, she distributes paychecks to all 50 employees at the end of every month.
- Ann's 10-year-old daughter is a Girl Scout. During the annual Girl Scout cookie sale, Ann sends email to all Acme employees, inviting them to stop by her desk during a break and place orders. (There is no company rule prohibiting the use of email system for personal emails)
- 9 recipients were happy and order cookies; average 4 boxes each. Other 40 recipients were unhappy to get email; half complain to a co-worker about Ann's action.
- Did Ann do anything wrong?

Kantian Analysis (1 of 2)

- We should always **respect autonomy of others**, treating them as ends in themselves and never only as the means to an end (2nd formulation of Categorical Imperative)
- However, Ann didn't misrepresent what she was doing
- She didn't force anyone to read the entire email
- Some who read her email chose to order cookies
- Therefore, she didn't "use" others, and her action was not strictly wrong
- However, an "opt in" approach would have been better

Act Utilitarian Analysis (1 of 2)

- Benefit to Girls Scouts = \$108
 - \$3 profit per box of cookies
 - 36 boxes sold
- Harm to company: time wasted
 - Orders taken during breaks
 - Lost productivity from complaining: \$70
 - 20 employees × 10 minutes/employee complaints = 200 minutes
 - 10 employees × 1 minute delete email = 10 minutes
 - Total time: 210 minutes ~ 3.5 hours
 - 3.5 hours × \$20/hour = \$70
- **Benefits exceed harms**, so action good
- Company may create policy against future fundraisers

Rule Utilitarian Analysis (1 of 2)

- Q: What would be consequences of everyone in company used email to solicit donations?
- A: Plenty of employee grumbling and lower morale
- **If everyone doing it (universalize)**, unlikely any one cause would do well
- Harms greater than benefits, so Ann's action was wrong

Social Contract Theory Analysis (1 of 2)

- Acme Corporation has no prohibition (no **rule**) against using its email system this way
- Ann was exercising her **right** to express herself
- Some people didn't appreciate message, but she didn't act like a spammer
 - She didn't conceal her identity
 - She wasn't selling a fraudulent product
- Ann did nothing wrong, although she could try another better approach

Virtue Ethics Analysis (1 of 2)

- As employee, **relevant virtues: honesty, fairness, respect**
- Ann was honest: her email didn't mislead anyone
- However, she wasn't fair or respectful, and she exercised poor judgment (as evidenced by larger amount of complaining by co-workers)
- In **her role** as parent, she did all work herself and didn't find a role for her daughter to play
- Ann should have found a way for her daughter to help, and she should have found another way to advertise that respected her co-workers

Summary (1 of 3)

- Analyses reached different conclusions, but Ann could have taken a less controversial course
- She could have posted a sign-up sheet to identify those interested in cookie sale
- That way, she would have sent email only to those interested, avoiding the problems of grumbling and lost productivity
- She could have found a way to get her daughter more engaged

3.2 Internet Interactions

The World Wide Web

- Web: networked hypertext system
- Stimulated tremendous growth in popularity of Internet
- Two important attributes to make Web a global tool for information exchange:
 - It is **decentralized**, everyone can add new information
 - Every Web object has a **unique** address (the URL)



Mobile Apps

- People spending more time on smartphones and tablets
- Using Web browsers awkward on mobile devices
- Mobile apps replace Web browsers as way to access Internet on mobile devices



How We Use the Internet (1 of 2)

- Buying and selling
- Socializing (e.g., Facebook)
- Contributing content (e.g., wikis and blogs)
- Visiting secret Web sites
- Crowdsourcing
- Learning
- Exploring our roots

How We Use the Internet (2 of 2)

- Entering virtual worlds
- Controlling the Internet of Things
- Paying taxes
- Gambling
- Taking humanitarian action (donation/lending money)
- So much more...

3.3 Political Impact of Social Media and Online Advertising

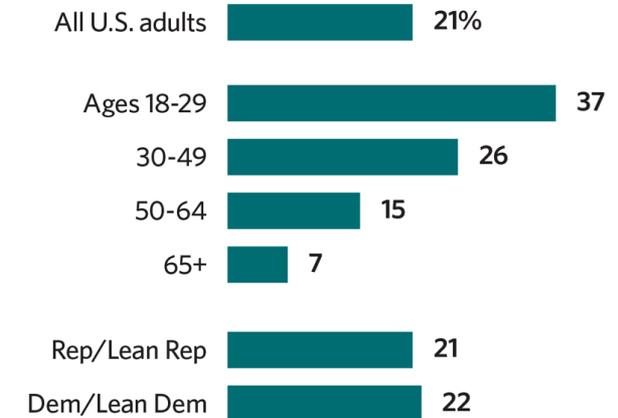
The Digital Political Landscape

- \$1.9 billion spent on online political ads (Meta, Google, Snap, X) in 2024 US election
- 2,000+ news influencers with 100K+ followers discussing politics
- **Social media as primary information source** for millions



Almost 4 in 10 U.S. adults under 30 get news from news influencers

% of U.S. adults who regularly get news from new influencers on social media



PEW RESEARCH CENTER

<https://www.pew.org/en/trust/archive/summer-2025/who-are-social-medias-news-influencers>

<https://www.brennancenter.org/our-work/analysis-opinion/online-ad-spending-2024-election-totaled-least-19-billion>

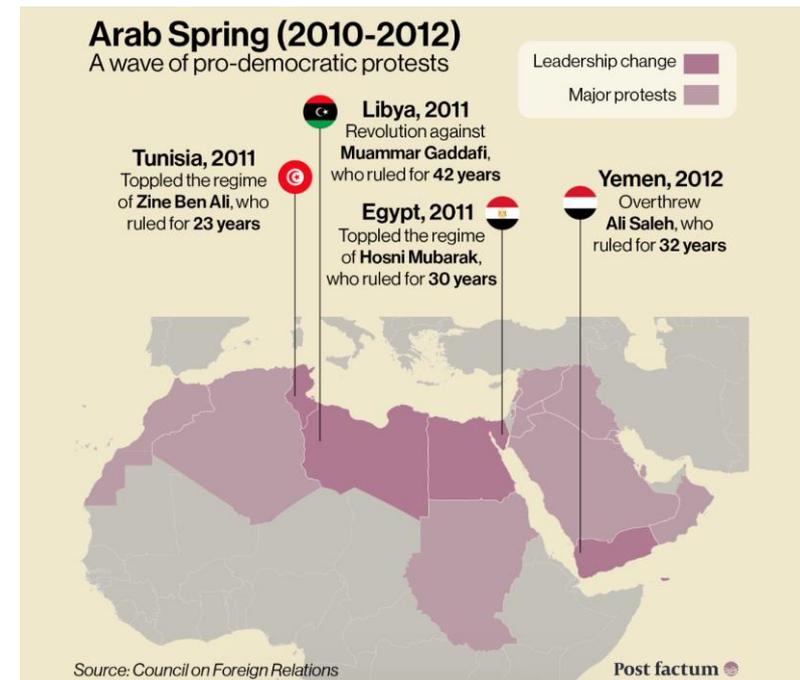
Political Activism

- Arab Spring uprisings (2011)
 - Began in Tunisia
 - Spread to other Arab countries, leading to major uprisings, social violence, riots, civil wars
 - “The people want to bring down the regime”
- Role of social networking in Arab Spring uprisings
 - Argument for: Social networks lead to politicization
 - Argument against: Ties in social networks too weak for high-risk activism



<https://www.youtube.com/watch?v=XgiWT9wO-ic>

0:00-6:34



<https://www.postfactum.co.uk/arab-spring-what-is-timeline-egypt-tunisia-syria-yemen-libya-when-was-arabspring>

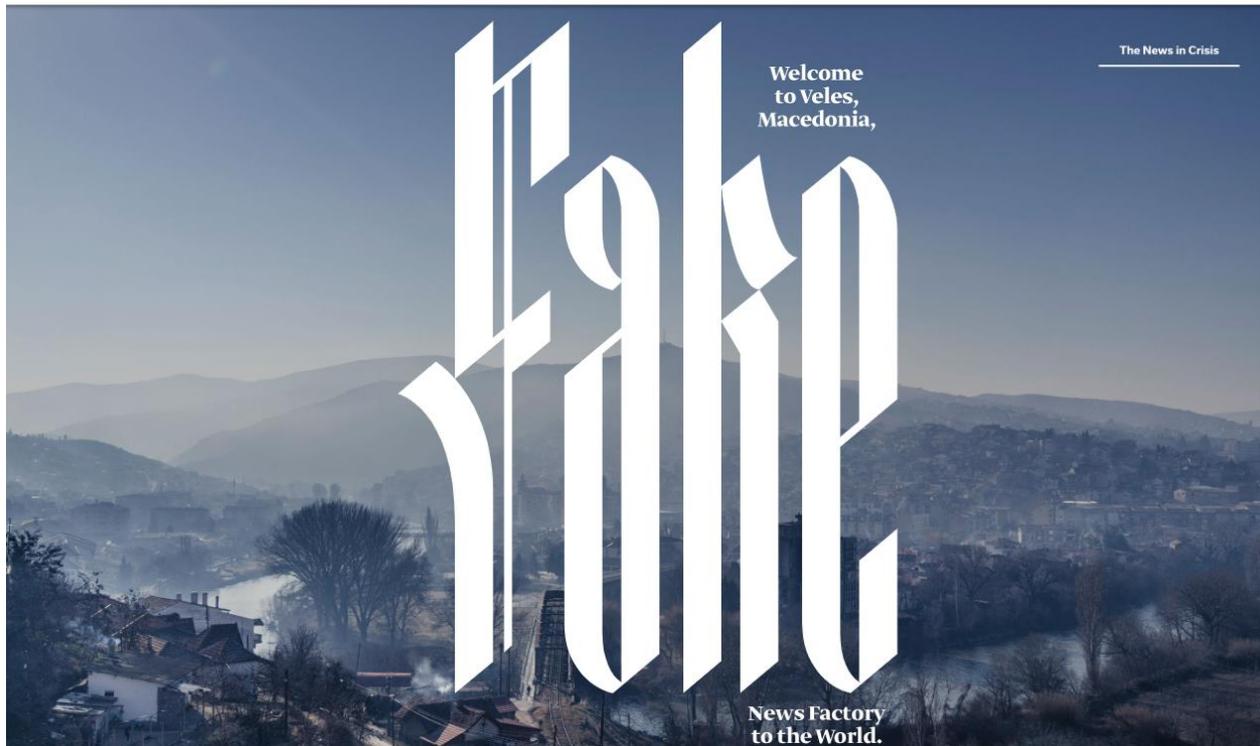
Macedonian Entrepreneurs

- Facebook and Google make money when people click on links leading to pages with advertising
- Macedonian entrepreneurs in 2016
 - Created more than 100 pro-Trump websites
 - Registered websites with Google’s AdSense program
 - Put pro-Trump stories on websites with sensationalized headlines
 - Used Facebook’s “share” feature to drive traffic to websites
 - Made money when people clicked on stories

Macedonian Entrepreneurs



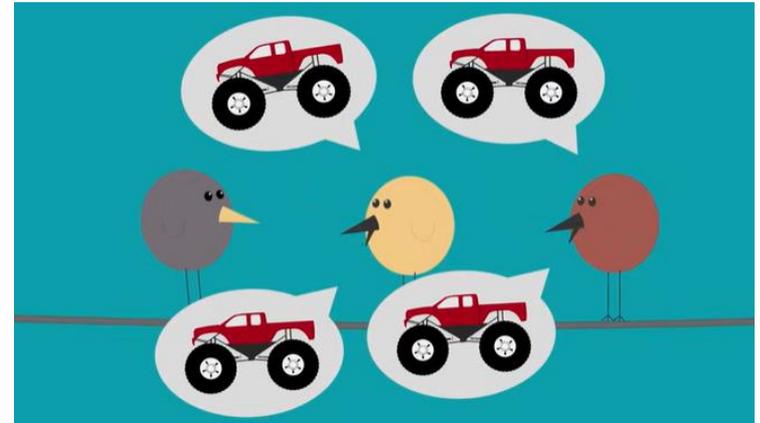
WIRED The Macedonian Teens Who Mastered Fake News



Interviewing creators of some fake websites <https://www.youtube.com/watch?v=ZusqgWUNFG4>

Echo Chambers Reinforcing Existing Beliefs

- Basis for concern
 - Facebook provides nearly half of Americans with news
 - To keep users engaged, Facebook feeds them content they like
 - Facebook builds profiles of user preferences and feeds people stories aligning with their preferences
 - Facebook doesn't feed people news that contradicts their view of world
 - People segregated into ideological “echo chambers”



<https://www.youtube.com/watch?v=Se20RoB331w>

Troubling Times for Traditional Newspapers

- Social media has reduced newspapers' advertising income
- Many newspapers have gone out of business; many others have lost most of their value
- Future looks bleak because advertisers shifting spending toward mobile devices where people spending more time
- Traditionally the press (the Fourth Estate) has informed citizens and held power to account
- Without traditional newspapers, what will happen to the Fourth Estate?

The Fourth Estate refers to the press and news media as a powerful, independent force in society alongside the traditional three estates (clergy, nobility, and commoners).

3.4 Censorship

Censorship

- Definition: Attempt to suppress or regulate public access to material considered harmful or offensive
- Traditionally exercised by governments and religious institutions
- **Printing press** a game changer because it broke monopoly on distributing information held by governments and churches

Direct Censorship

- **Government monopolization:** government controls all media outlets (e.g., in former Soviet Union, the government owned all TV stations, radio stations, and newspapers)
- **Prepublication review:** everything reviewed and approved before being disseminated, e.g., for material that would harm national security
- **Licensing and registration:** used to control media with limited bandwidth, such as radio and television

Self-Censorship

- Most common form of censorship
- Group decides for itself not to publish
- Reasons
 - Avoid subsequent persecution
 - Maintain good relations with government officials (sources of information)
- Ratings systems created to advise potential audience
 - Movies, TVs, video games (e.g., for mature content)
 - But **Not** for the Web content

Challenges Posed by the Internet

- Many-to-many communications:
 - Unlike TV or newspaper, everyone can post anything
 - Government is difficult to prevent spread of an idea
- Dynamic connections
 - Sites can connect and shutdown any time, any day
- Huge number of web sites
- Global: extends beyond national borders, laws
- Hard to distinguish between children and adults on the Internet

Governmental Filtering and Surveillance of Internet Content

- North Korea: Internet virtually inaccessible; e.g., ~0.1% of the population can access Internet
- Saudi Arabia: All Internet traffic flows through two government-controlled gateways, which can block sites (pornography sites, gambling sites, etc.)
- China
 - Blocks Internet access at times of social unrest
 - Has one of world's most sophisticated web filtering systems
 - The Great Firewall of China prevents accessing messages from blocklisted sites, Google, YouTube, Facebook, etc.

Governmental Filtering and Surveillance of Internet Content

- Germany: Forbids access to neo-Nazi sites
- United States: Repeated efforts to limit access of children to pornography

Ethical Perspectives on Censorship

- Kant opposed censorship as a backward step.

Kant had been battling censorship. In ‘What is Enlightenment?’ (1785), he argued that while persons in an official capacity have to obey orders, no official, not a professor or even a military officer, has to surrender his right to address his views to ‘the entire reading public’ (the ‘public use of reason’)



‘Have the courage to use your own understanding,’ is therefore the motto of the enlightenment.

领悟;启发;开导;启蒙

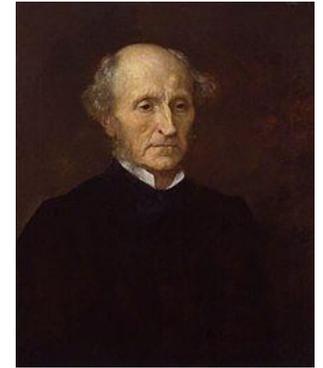
Ethical Perspectives on Censorship

Furthermore, he called out people's tendency to blindly follow thought leaders:

- “Why don't people think for themselves?”
- “Laziness and cowardice are the reasons why ...”
- “If I have a book that thinks for me, a pastor who acts as my conscience, a physician who prescribes my diet, and so on — then I have no need to exert myself. I have no need to think, if I can only pay; others will take care of that disagreeable business for me,” he wrote.
- His thesis for the essay became a rallying cry for the era. “*Sapere aude! (Dare to know.)*”



Ethical Perspectives on Censorship



- Mill opposed censorship
 - No one is infallible, all of us are capable of error
 - Any opinion may contain a kernel of truth, but majority opinion is not the whole truth, ought to let all opinions be voiced out
 - Truth revealed in clash of ideas; the whole truth left untested is simply a prejudice.
 - Ideas resulting from free and open discourse are more likely to influence “character and conduct”
- However, a lack of government censorship can also lead to harm

Mill's Principle of Harm

“The only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, **is to prevent harm to others**. His own good, either physical or moral, is not a sufficient warrant.”

— John Stuart Mill

3.5 Freedom of Expression

Freedom of Expression: History

- Restriction of freedom of speech in England dated back to 1275 and a law called *De Scandalis Magnatum*:



Literally, “libels upon peers”, made it illegal knowingly to spread false rumors that cause public mischief. The goal of the statutes was to preserve good relations between the Crown and the nobility as well as among the nobles themselves.

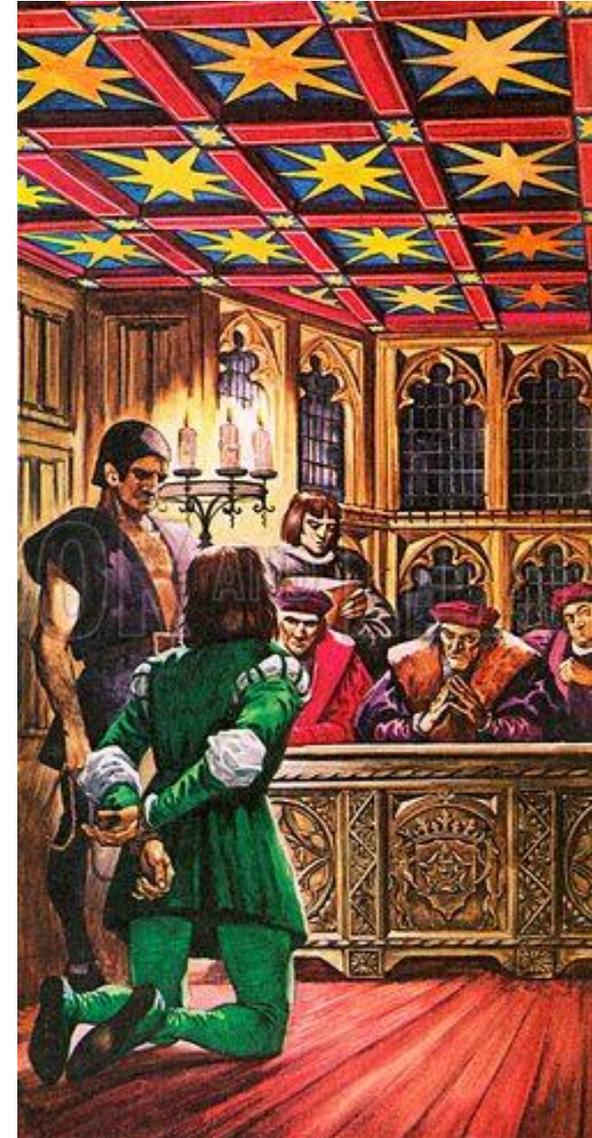
In Elizabethan England the penalty for spreading false rumors was to have one’s right hand chopped off (in cases of **libel** 誹謗) or one’s ears chopped off (in cases of **slander** 口頭誹謗).

Later, the law became much broader, encompassed **sedition** words (煽動性的) & words spoken against govt officials.

Court of Star Chamber

(England)

- Administered broad anti-sedition law
 - Although libel usually requires the statement made to be untrue, the Star Chamber ruled that the truth of a statement that is seditiously libellous was not a consideration under the common law. In other words, **any criticism of the monarch or of the government could be seditious, even true ones.**
- Reported directly to King
- Did not have to obey traditional rules of evidence
- Convictions arose from verbal insults or private writings



<https://www.netlawman.co.uk/ia/seditious-libel#:~:text=More%20importantly%2C%20although%20libel%20usually,be%20seditious%2C%20even%20true%20ones.>

<https://www.lookandlearn.com/history-images/B002290/The-Court-of-Star-Chamber>

Freedom of Expression: History

- 18th century
 - “Freedom of press” in England means freedom to print without a license
 - Law against seditious libel simply considered if the material printed was harmful (regardless if it is true information or not)
 - About 50 people were prosecuted for libel



Man Accused Of Seditious Libel Is Put On Public Display In The Pillory (頸手枷)

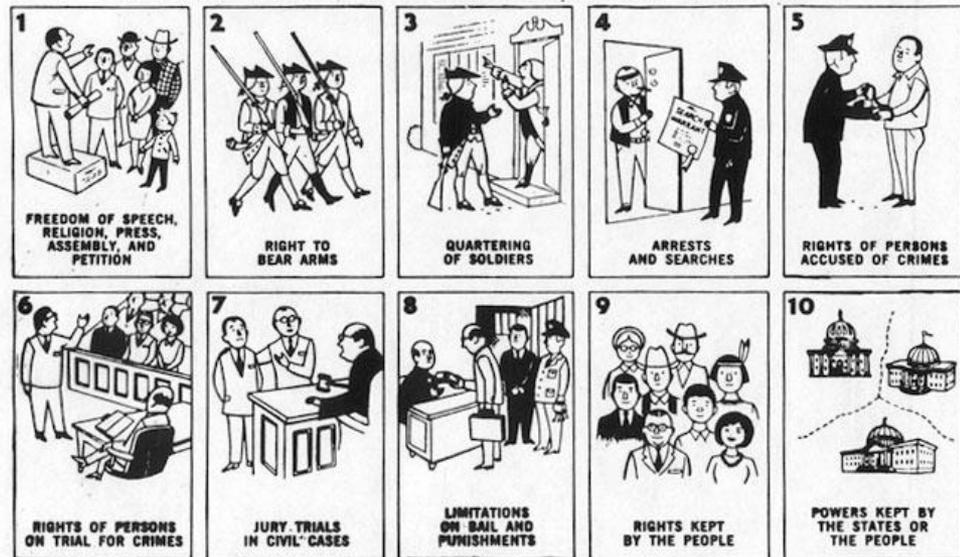
<https://www.amazon.com/England-Justice-Accused-Seditious-Display/dp/B07C8D1LFN>

Bill of Rights

- In 1787, delegates from the 13 states gathered to revise the Articles of Confederation to draft a new Constitution. (but it contained no declaration of the rights of citizens.
- 10 amendments were proposed to the Constitution, these are known as the Bill of Rights.



THE BILL OF RIGHTS The First Ten Amendments to the U.S. Constitution



Transparency Master (#5) for Feb. 1, 1971 Young Children

Questions and more information on page 1 of Teacher's Edition.

4/Teacher's Edition • February 1, 1971

1st Amendment to U.S. Constitution (1791)

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances.

國會不得制定任何關於建立宗教或禁止宗教自由的法律；或限制言論或新聞自由；或人民和平集會並向政府請願伸冤的權利。

1st Amendment to U.S. Constitution (1791)

- 1st Amendment covers political and nonpolitical speech; free speech allows open discussion of public issues, make government responsive to the will of people.
- Include scientific and art expressions, and certain kinds of conduct, such as burning an American flag
- However, those who abuse this freedom and harm the public may be punished.

a form of "symbolic speech"



Freedom of Expression Not an Absolute Right

- Protection is not given to libel, reckless, calculated lies, slander, misrepresentation, perjury, false advertising, obscenity, profanity, solicitation of crime, personal abuse, fighting words



Freedom of Expression Not an Absolute Right

- Various restrictions on freedom of expression exist
 - Justified when results in greater public good
 - Example: forbidding cigarette advertising on television and radio

1970

President Nixon signs legislation banning cigarette ads on TV and radio



Case Study: Kate's Blog

- Kate: Maintains a popular “life on campus” blog
- Jerry: Another student; active in a political Party
- At private birthday party, someone gives Jerry a Party T-shirt as a gag, and Jerry puts it on
- Kate uses cell phone to take picture of Jerry when he isn't looking, posts it on her blog
- Story read by many people on and off campus
- Jerry confronts Kate and demands she remove photo; she complies, and they remain friends
- Kate's blog and Jerry both become more popular. Finally, Jerry thanks Kate for this boost in his popularity, quenching the unhappiness he initially felt.

Was it wrong for Kate to post the picture of Jerry on her blog without first getting his permission?

Kantian Analysis

- Kate uploaded Jerry's photo to her blog without asking his permission
- She treated him as a means to her end of increasing the readership of her Web site
- Her action was wrong

Social Contract Theory Analysis

- Birthday party held in apartment of one of Jerry's friends
- As the birthday party was held in the apartment, Jerry had a reasonable expectation of privacy
- Kate violated Jerry's **right to privacy**
- Kate's action was wrong

Act Utilitarian Analysis

Determine the +ve and –ve consequences of Kate’s action on the two people involved:

- Benefits
 - Popularity of Kate’s blog increased (definitely, +10)
 - Jerry become more popular on campus (definitely, +10)
 - Initially unhappiness further reduced (+2)
- Harms
 - Jerry’s anger at Kate (only temporary, -5)
 - Photo could discredit Jerry at some point in future (unlikely)
- Totaling (+17): Benefits greater than harms, so Kate did a good thing

Act Utilitarian Analysis

- Long-term consequences are difficult to determine.
 - If the photo could land in the wrong hands and be used to discredit Jerry someday in the future (-100)
 - Unsure if Jerry will stay active in politics after graduates (50%)?
 - Did anyone download it (20%)?
 - Chance that the photo will fall into hands of someone who wants to make Jerry look bad (10%)?
- Long-term consequences: $-100 \times 50\% \times 20\% \times 10\% = -1$
- Short-term+Long-term: $+17-1 = 16 \rightarrow$ Action has good outcome

Rule Utilitarian Analysis

- What if everyone were constantly taking photos of people they encountered and posting them?
- Positive consequences
 - People would have more opportunities to keep up with what their friends are doing
 - People might be more reluctant to engage in illegal activities
- Negative consequences
 - People would become more self-conscious
 - Some relationships would be harmed
- Negative consequences more weighty than positive consequences, so Kate's action was bad

Virtue Ethics Analysis (2 of 2)

- True friends trust each other and seek each other's good
- Reciprocity and equality are fundamental elements of friendship
- **Lack of reciprocity:** Kate took something from Jerry without giving him anything in return
- **Lack of equality:** She put her own interest above that of Jerry
- After the party, she wasn't honest with Jerry, not telling him anything but simply posting the photo.
- Kate's actions did not seem to be characteristic of a good friend

Summary (2 of 3)

- Four out of five analyses: Wrong for Kate to post the photo without asking Jerry's permission, though each analysis uses a different line of reasoning to reach that conclusion

Kantianism	Act utilitarian	Rule utilitarian	Virtue Ethics	Social contract theory	Conclusion
Wrong	Correct	Wrong	Wrong	Wrong	4/5 Wrong!

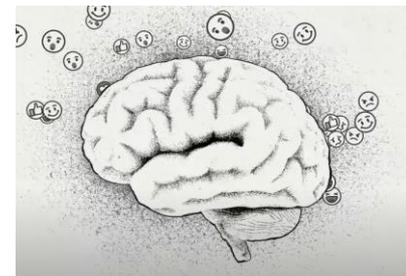
- What is a better option?
 - Kate should have tried to get Jerry's consent

3.6 Children and Inappropriate Content



Surgeon General Vivek Murthy discusses his new advisory warning about the potential harm social media has on young people's mental health. **"We see rates of depression and anxiety and suicide and loneliness going up among people and I'm concerned that social media is an important driver of that youth mental health crisis. We're issuing this advisory to sound the alarm."** NBC's Hallie Jackson reports for TODAY.

<https://www.youtube.com/watch?v=2SvqoaZzyVs>



0-3:12 <https://www.youtube.com/watch?v=rooEBjZWpDc>

Despite mounting mental health concerns, teens remain heavy social media users
Some teens describe "almost constant" social media use.



Image from: <https://mashable.com/article/teen-social-media-use-survey>

Social Media Pros and Cons

Pros

- Anyone can publish their thoughts online
- Free source of information
- Help us make friends
- Allow for dissent
- Important educational tools



Cons

- Lead to addiction
- Increase online bullying
- Lead to body image issues
- Spread misinformation
- Cause sleeplessness
- Increase stress

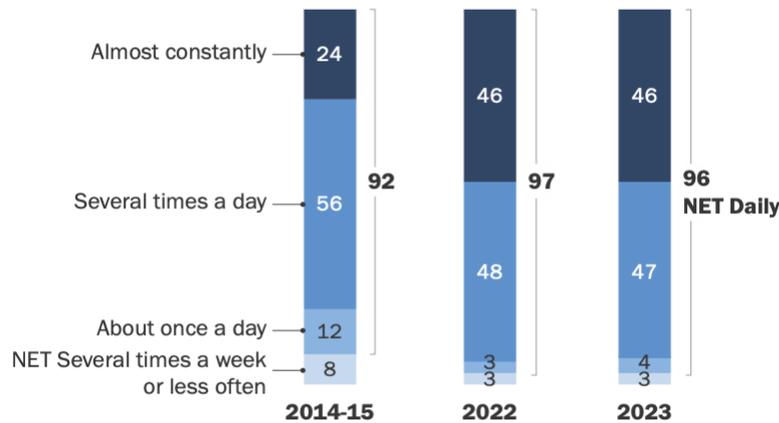
Teens, Social Media and Technology 2023

YouTube, TikTok, Snapchat and Instagram remain the most widely used online platforms among U.S. teens

BY MONICA ANDERSON, MICHELLE FAVERIO AND JEFFREY GOTTFRIED

The share of teens who say they are online ‘almost constantly’ has roughly doubled since 2014-2015

% of U.S. teens ages 13 to 17 who say they use the internet ...



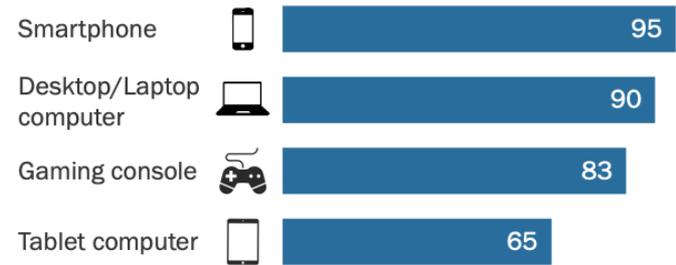
Note: Figures may not add up to NET values due to rounding. Those who did not give an answer are not shown.

Source: Survey of U.S. teens conducted Sept. 26-Oct. 23, 2023. “Teens, Social Media and Technology 2023”

PEW RESEARCH CENTER

Nearly all teens in the U.S. have access to a smartphone

% of U.S. teens ages 13 to 17 who say they have access to the following devices at home



Note: Those who did not give an answer are not shown.

Source: Survey of U.S. teens conducted Sept. 26-Oct. 23, 2023. “Teens, Social Media and Technology 2023”

PEW RESEARCH CENTER

See the full report at <https://www.pewresearch.org/internet/2023/12/11/teens-social-media-and-technology-2023/>

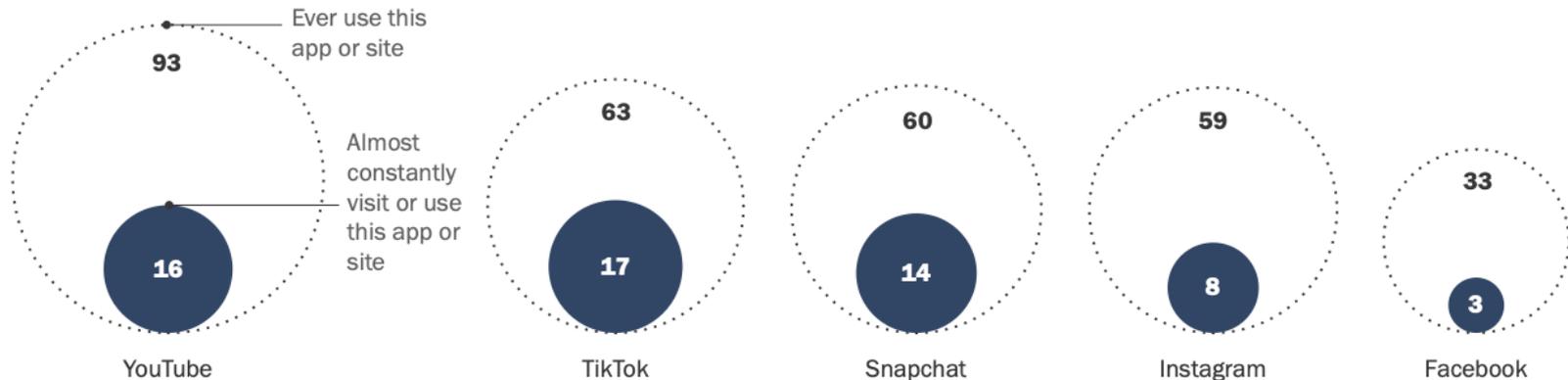
Teens, Social Media and Technology 2023

YouTube, TikTok, Snapchat and Instagram remain the most widely used online platforms among U.S. teens

BY MONICA ANDERSON, MICHELLE FAVERIO AND JEFFREY GOTTFRIED

Nearly 1 in 5 teens say they're on YouTube, TikTok 'almost constantly'

% of U.S. teens ages 13 to 17 who say they ...



Note: Those who did not give an answer or gave other responses are not shown.

Source: Survey of U.S. teens conducted Sept. 26-Oct. 23, 2023.

"Teens, Social Media and Technology 2023"

PEW RESEARCH CENTER

See the full report at <https://www.pewresearch.org/internet/2023/12/11/teens-social-media-and-technology-2023/>

Australia Bans Social Media for Kids Under 16 starting 10/12/2025



<https://www.youtube.com/watch?v=nlc828lhNI4>

Web Filters

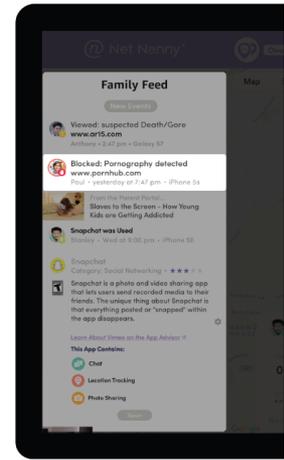
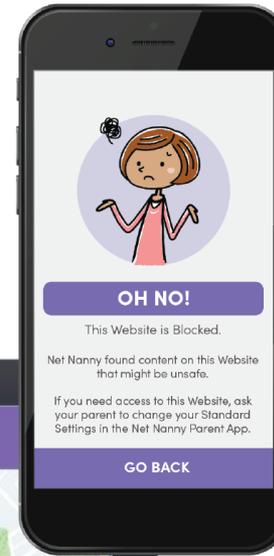
- Web filter: Software that prevents display of certain Web pages
 - May be installed on an individual PC
 - ISP may provide service for customers
- Methodologies
 - Maintain “black list” of objectionable sites
 - Examine content for objectionable words/phrases
- No method is foolproof



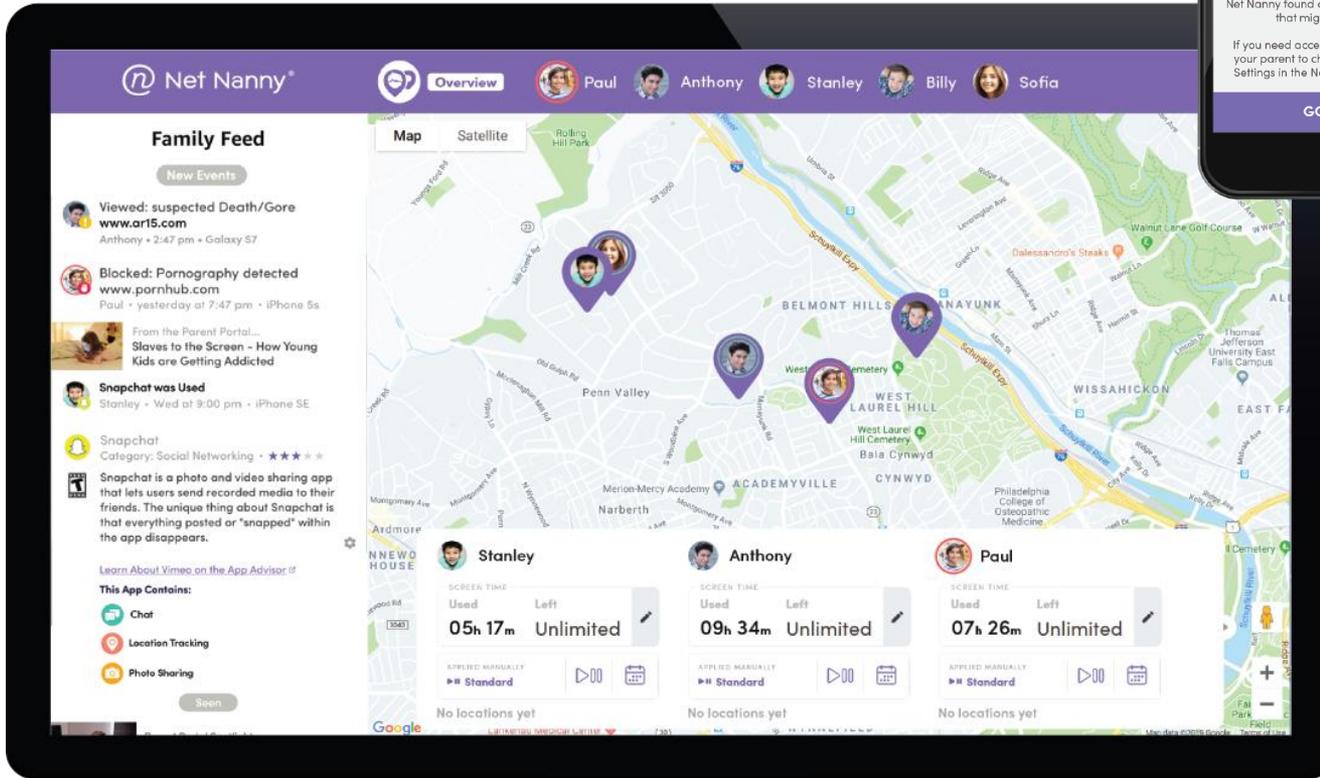


YouTube Monitor

Block Inappr. Content



Track Location



Screen time management

Child Internet Protection Act (CIPA)

- Libraries receiving federal networking funds must filter pages containing obscenity or child pornography
- The law allows adults who desire access to a blocked page to ask a librarian to remove the filter
- U.S. Supreme Court ruled CIPA did not violate 1st Amendment guarantees
(6-3 decision in June 2003)

In his testimony before the Supreme Court, Solicitor General Theodore Olson argued that since libraries don't offer patrons X-rated magazines or movies, they should not be obliged to give them access to pornography over the Internet.

Paul Smith, representing the American Library Association and the American Civil Liberties Union, argued that in their attempt to screen out pornography, filters block tens of thousands of inoffensive pages. He added that requiring adults to leave the workstation, find a librarian, and ask for the filter to be turned off would be disruptive to their research and would stigmatize them.



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
- Heavily impacting (other) people's lives

Scenario 1: Case of Jesse Logan

- Ohio high school student Jesse Logan sent nude pictures of herself to her boyfriend. When they broke up, the ex-boyfriend distributed the photos to other girls in her high school. Jesse endured months of harassment from her high school classmates and began skipping classes on a daily basis. After attending the funeral of another classmate who committed suicide, Jesse went home and hanged herself.

Scenario 2: Case of Philip Alpert

- After Phillip Alpert got into an argument with his 16-year-old girlfriend, he emailed a nude photo of her to dozens of her friends and family members. “It was a stupid thing I did because I was upset and tired and it was the middle of the night and I was an immature kid,” Alpert said upon reflection. The Orlando, Florida, police arrested Alpert, who had just turned 18, charging him with sending child pornography, a felony. It didn’t matter that Alpert’s girlfriend was 16, that they had dated for two and a half years, and that she was the one who had originally sent the photo to him. Alpert was sentenced to five years probation and required to register with the state of Florida as a sex offender. He will remain a registered sex offender until he is 43 years old.

Scenario 3: Case of Ting-Yi Oei

Ting-Yi Oei, a 59-year-old assistant principal at Freedom High School in South Riding, Virginia, was asked to investigate rumors that students were distributing nude photographs on their cell phones. His investigation led to a 16-year-old boy, who admitted to having a provocative photo on his cell phone. The photo showed the torso of a 17-year-old girl wearing panties, with her arms mostly covering her breasts. Oei showed the image to the principal, who told him to keep a copy on his computer as evidence.

Two weeks later the same boy got in trouble again, and Oei suspended him for two weeks. When Oei met with the boy's mother, he told her about the earlier photo incident. The boy's mother was upset that Oei hadn't immediately told her about the photo, and she demanded that Oei revoke her son's suspension. When Oei refused, the mother went to the police and told them about the photo. Police came to the school and found the photo of the girl on Oei's computer. County prosecutor James Plowman gave Oei an ultimatum: resign or face felony charges for possession of child pornography.

Oei refused to resign, and in August 2008, a grand jury indicted him for possession of child pornography. The school district removed him from his position as vice principal and reassigned him to a job at a testing center. Oei had to take out a second mortgage on his house to pay legal expenses. In April 2009, Loudoun Circuit Court Judge Thomas Horne dismissed the charges, noting that nudity alone is not sufficient to categorize an image of a minor as child pornography. Though never convicted, Oei ended up deeply in debt and with a tarnished reputation, unsure if he would ever return to his former position at the high school.

Hate Speech

- Definition: Hate speech refers to **offensive discourse** targeting a group or an individual based on **inherent characteristics** (such as **race, religion** or **gender**) and that may threaten social peace ([United Nation](#))
- “Social media provides a global megaphone for hate.” (quoted from António Guterres, United Nations Secretary-General, 2021)
- Research has found:
 - Hateful content diffuse farther, wider and faster and have a greater outreach
 - Hateful users on social media are more influential, popular and cohesive

Hate Speech: Solutions

- Automated monitoring systems – but not very effective
- Holding Internet companies accountable for hate speech
- Moderating and removing content considered to be against the law
- Better media quality – not broadcasting hate speech
- Improving information literacy of online users – teach them how to differentiate hate speech, and avoid read/forward it
- Question: Do these violate freedom of expression?

<https://www.un.org/en/hate-speech/understanding-hate-speech/what-is-hate-speech>

3.7 Breaking Trust

Identity Theft (1 of 2)

- Definition: When a person misuses another person's identity
- Leading form of identity theft is fraudulent use of an existing credit card or bank account
- In 2017 about 7% of adults in U.S. reported being victims
- Consumer's liability for credit card losses limited to \$50
- Most banks and credit card companies offer zero-liability fraud protection

Identity Theft (2 of 2)

- Point-of-sale fraud has declined rapidly with adoption of EMV (embedded chip) credit cards and terminals
- Fraud increasingly happening online
- Nearly half of cases from lost credit card, checkbook, etc.
- How identity thieves gain access
 - Dumpster diving
 - Shoulder surfing
 - Phishing
- College students 5 times more likely to be victims than adults
 - Live in close quarters with others
 - Post lots of personal info actively; Some do not take care to secure sensitive information

Fake Reviews

- Survey of North Americans in 2014
 - 88% used online reviews in past year
 - 39% read reviews regularly
 - Restaurants, hotels, doctors and dentists, beauty salons
- Significant percentage of reviews are fraudulent
 - Fake positive reviews to their own business
 - Fake negative reviews to their competitors
- Yelp spends millions of dollars annually to identify and remove fake reviews

Online Predators

- Instant messaging: software supporting real-time “chat” over the Internet
- Popular apps: Kik Messenger, Whisper, WeChat, Whatsapp...
- Child predators use apps to find victims
- Police run “sting” operations
 - sting = a carefully planned operation, typically one involving deception (Oxford Dictionary)*
 - Sometimes result in dozens of arrests
 - Allegation: Extreme methods to maintain arrest rates

Ethical Evaluations of “Stings”

- Kantian evaluation

- In order to put a pedophile in prison, the police must identify this person.
- Since a pedophile is unlikely to confess on the spot if asked a question by a police officer, the police lay a trap. The will of the police detective is to deceive a pedophile in order to catch him. To a Kantian, lying is wrong.
- Police are also using every online user as a means to their end of identifying and arresting the pedophile. While police officers have a duty to protect the public safety, it is wrong for them to break other moral laws in order to accomplish this purpose.

Ethical Evaluations of “Stings”

- Utilitarian evaluation
 - The offender is arrested and charged
 - The direct effects of the sting operation are:
 - The denial of one person’s freedom (a harm)
 - An increase in public safety (a benefit)
 - Since the entire public is safer and only a single person is harmed, this is a net good.

Ethical Evaluations of “Stings”

- Social contract theory evaluation
 - There are certain moral rules that people ought to follow. Examples: honest, conversations should be kept confidential
 - By misrepresenting identity and/or intentions, the pedophile has broken a moral rule and ought to be punished
 - Police detectives also misrepresent their identities and record everything typed by suspected pedophiles (who would expect privacy)
 - The upholders of the law have broken the rules, too
 - Therefore, “stings” are wrong under SCT

False Information

- Quality of Web-based information varies widely
- Other media also have information of varying quality
 - The New York Times v. The National Enquirer
 - 60 Minutes v. Conspiracy Theory
- Google attempts to reward quality
 - Ranking uses “voting” algorithm
 - If many links point to a page, Google search engine ranks that page higher

Cyberbullying

- Definition: Use of the Internet or phone system to inflict psychological harm
- In a 2009 survey, 10% admitted to cyberbullying, and 19% said they had been cyberbullied
- Examples:
 - Repeatedly sending hurtful messages to another person
 - Spreading lies about another person
 - Tricking someone into revealing highly personal information
 - Revealing someone's secrets online
 - Posting embarrassing photographs or videos of other people without their consent
 - Impersonating someone else online in order to damage that person's reputation
 - Threatening or creating significant fear in another person

3.8 Internet Addiction

Is Internet Addiction Real? (1 of 2)

- Digital device users get immediate positive feedback through dopamine “hits” that make it difficult to break away from devices
- Psychiatrist Jerald Block: Three variants of Internet addiction
 - Excessive gaming
 - Sexual preoccupations
 - Messaging
- Block: Four characteristics of Internet addiction
 - Excessive use
 - Withdrawal symptoms (angry, tense, depressed)
 - Feeling need to enhance online experience (better equip, more time)
 - Negative social consequences

Is Internet Addiction Real? (2 of 2)

- American Psychiatric Association: insufficient data to list as a mental disorder
- South Korea
 - Average high school student spends 23 hours/week gaming
 - Law prohibits children from gaming between midnight and 6 a.m.
- China
 - Software discourages children under 18 from playing more than 3 hours/day

Online Games



Many South Koreans play online games in centers called PC bangs. In 2005 a 28-year-old South Korean man died after playing one game practically nonstop for 50 hours. (Kim-Jae-Hawn/AFP/Getty Images)

China Set New Limits on Online Video Games

- Published draft rules in Dec 2023
- Aim at tightening the industry management and protecting the country's minors (under 18)
 - Set spending limits on game platforms (1 h/day, 3 h/week, only Fri, Sat, Sun & holidays)
 - Banning reward features (e.g., daily logins)
 - Prohibit minors from tipping videogame live streamers



Contributing Factors to Addiction

- Social factors
 - Peer groups
- Situational factors
 - Stress
 - Lack of social support and intimacy
 - Limited opportunities for productive activity
- Individual factors
 - Tendency to pursue activities to excess
 - Lack of achievement
 - Fear of failure

Ethical Evaluation

- Kantian:
 - Individuals can and should govern their lives
 - People are responsible for their choices
 - Excessively use digital devices can harm themselves and others for whom they are responsible
- Utilitarian:
 - Some pleasures are more valuable than others
 - Distinguish better pleasures from worse ones
- Social contract:
 - Society may bear some collective moral responsibility for the additions of some of its members

Summary (3 of 3)

- Internet and cellular networks have revolutionized communication
 - More people than ever can interact to socialize, conduct business, organize political movements, and more
 - New opportunities for exploitation as well
- Web is enormous, reflecting best and worst of humanity
- Social media
 - Increasingly important way for people to get news
 - May be increasing political polarization
- Governments must determine how to intervene, if at all
 - Controlling the kind of information that is available
 - Responding to Internet addiction

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