WHAT IS NET NEUTRALITY?

- Idea that broadband Internet service is a common carrier
  - As a public utility, service providers cannot give preferential treatment to customers
- Regulated by the Federal Communications Commission (FCC)
Does everyone have a right to broadband?

- Broadband is a right and should be regulated by the government
- Broadband is not a right but should be regulated by the government
- Broadband is not a right but should be regulated by something other than the government
- Broadband is not a right and does not need to be regulated by any organized body
IMPACTS OF NOT HAVING UBQUITOUS BROADBAND?
In 1980s, Internet primarily used by researchers and developers rather than consumers.

In late 1990s, Internet becomes more pervasive in homes and businesses as broadband replaces dial-up services.

- Cable modem access categorized under U.S. law as an information service rather than telecommunications services (not a common carrier).

In 2004, FCC Chairman Michael Powell presents “guiding principles” for the industry to preserve Internet freedom.
INTERNET FREEDOMS

- Consumers should have:
  - Freedom to access content
  - Freedom to use applications
  - Freedom to attach personal devices
  - Freedom to obtain service plan information

- Presented as guidelines rather than regulations
HISTORY OF NET NEUTRALITY (MID 2000S TO 2010)

- In 2005, the FCC reclassified phone-based internet access (e.g. DSL) as an information service
  - Relaxed common carrier regulations for providers
- In 2009, Comcast settles class-action lawsuit for throttling P2P connections of users in 2007 and 2008
  - Paid $16M across affected users and provided FCC with its new congestion management system that is application agnostic
- In 2010, Federal court overthrew FCC’s cease-and-desist order against Comcast
- In 2010, FCC created first Open Internet Order
  - Restates general ideas of Internet freedoms but a compromise
  - ISPs cannot block or slow online services
  - Wireless companies can throttle services
HISTORY OF NET NEUTRALITY (2010 TO PRESENT)

- In 2014, DC circuit court ruled that the FCC cannot require ISPs to treat all traffic equally in *Verizon vs. FCC*
  - Court ruled on basis that ISPs are not common carriers
- In 2015, FCC reclassifies broadband as a telecommunications service
  - ISPs cannot block, throttle or fast lane users
- In 2017, FCC chairman Ajit Pai led “Restoring Internet Freedom” order to repeal 2015 rules
  - 23 State Attorneys General suing order as a violation of federal law
- In 2018, Department of Justice filed a lawsuit against California for creating state-level net neutrality protections
- In 2019, D.C. Circuit Court of Appeals upheld the canceling of net neutrality by FCC but stated FCC cannot bar states from adopting open-Internet protections
FEDERAL VERSUS STATE REGULATION

- With 2017 repeal of net neutrality, over half the states have introduced state-level bills to protect net neutrality.

- Pai claims FCC has authority to preempt states and municipalities from imposing laws as broadband is an interstate service.

- States can legally enforce net neutrality in role of purchasers of Internet services.
  - ISPs must abide by state net neutrality regulations if they contract with any state agencies.
VERIZON THROTTLES CALIFORNIAN FIRE FIGHTERS

During the 2018 California fires, Santa Clara County Central Fire Protection District discovered data from support units to on-scene fire fighters was being slowed to 1/200th of expected speed

- Fire fighters were on an unlimited plan but had exceeded allotment resulting in throttling

- Fire fighters forced to purchase additional plans to continue coordinating fire suppression

Verizon later responded that throttling was a “customer support mistake” and promised unlimited plan to first responders

As of 2 months later, first responder plan may or may not exist, but Verizon did release an ad claiming to be the #1 network for first responders
REALITIES OF INTERNET IN AMERICA

Percent of population with access to high-speed broadband (2017)

*High-speed is defined as 25 Mbps/3 Mbps*

*The Conversation, CC-BY-ND*
...COMPAARED TO OTHER COUNTRIES

TOP 10 CONNECTION SPEEDS:

SOUTH KOREA: 25.3
HONG KONG: 16.3

AVG. CONNECTION SPEEDS ON MOBILE NETWORKS:

- CANADA: 7.9 Mbps
- UNITED STATES: 5.8 Mbps
- SOUTH KOREA: 10.9 Mbps
- SINGAPORE: 18.2 Mbps
- RUSSIA: 7 Mbps

Infographics from 2015
THE DIGITAL DIVIDE

- Separation of those who have access to the Internet and those that don’t

- In the US, only 65% of people have broadband versus South Korea with more than 94%
DIFFERENCES?

- High population density makes it easier to reach all citizens
- South Korean government actively encourages citizens to access Internet
  - Subsidizes price of connection for low-income people
  - Programs to teach traditional non-users to access Internet and incorporate it into their daily lives and for education
- South Korea, Japan and several European countries have infrastructure-sharing to allow for broadband competition
- South Korean government prioritizes high connection and Internet literacy
  - Faster to adopt new technologies (and discard old ones)
MUNICIPAL INTERNET INFRASTRUCTURE

- Municipal infrastructure can reach underserved areas as there’s lower costs and no need for shareholder profits.
- In 2004 the US Supreme Court allowed states to prevent municipalities from providing telecommunication services.
  - Led to an increase in ISP lobbying within states to limit a municipality’s ability to create local broadband.
- In 2017, almost half of Colorado counties authorized their local governments to build city-run broadband networks.
THE DATA DIVIDE

- Separation of those who can access and process data, and those who cannot
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