Agenda

- Online Privacy
What: S.J.Res.34 - a new bill that repeals the rule of "Protecting the Privacy of Customers of Broadband and Other Telecommunications Services" (call it the privacy rule next). Under this privacy rule, ISPs need to get consumers’ explicit consent before selling or sharing web browsing data and other private information with advertisers and other companies.

When:

- 03/23/2017, Passed Senate without amendment by Yea-Nay Vote. 50 - 48.
- 03/28/2017, Passed House by Yeas and Nays: 215 - 205
- 04/03/2017, Signed by President Trump.
S.J.Res. 34 – Disapproving the Federal Communications Commission’s Rule on Privacy of Customers of Broadband Services

Vote Results

  - Idaho: Crapo (R-ID), Yea Risch (R-ID), Yea

- House Vote Results:
  - Idaho: Yea R Labrador, Raúl ID 1st; No Vote R Simpson, Mike ID 2nd
People’s Reaction

▶ Whose Internet History Should Be Purchased First?
https://www.searchinternethistory.com/
People’s Reaction

A full page ad in The New York Time calling out 50 senators.

Hello world.

These are the 50 Senators who voted to monitor your internet activity for financial gain.

Alexander (R-TN)
Barrasso (R-WY)
Blunt (R-MO)
Boozman (R-AR)
Burr (R-NC)
Capito (R-WV)
Cassidy (R-LA)
Cochran (R-MS)
Collins (R-ME)
Corker (R-TN)
Cornyn (R-TX)
Cotton (R-AR)
Chips (R-ID)
Cruz (R-TX)
Daines (R-MT)
Enzi (R-WY)
Ensm (R-IA)
Fischer (R-NE)
 Flake (R-AZ)
Gardner (R-CO)
Graham (R-SC)
Grassley (R-IA)
Hatch (R-UT)
Heller (R-NV)
Hoeven (R-ND)
Inhofe (R-OK)
Johnson (R-WI)
Kennedy (R-MA)
Lankford (R-GA)
Lee (R-UT)
McCain (R-AZ)
McConnell (R-KY)
Moran (R-KS)
Murkowski (R-AK)
Perdue (R-GA)
Portman (R-OH)
Risch (R-ID)
Roberts (R-KS)
Rounds (R-SD)
Rubio (R-FL)
Sasse (R-NE)
Scott (R-SC)
Shelby (R-AL)
Strange (R-AL)
Sullivan (R-AK)
Thune (R-SD)
Trista (R-MC)
Toomey (R-PA)
Wicker (R-MS)
Young (R-IN)

Here is what will happen if this becomes law; your internet service provider will be able to...

Monitor You
Manipulate What You See
Sell It All

Call your House Representative and tell ‘em to vote against H.J. Res. 86.
What Opponents Say

Senator Markey Speaks In Opposition to GOP Roll-Back of Broadband Privacy Protection - 3/23/17
https://www.youtube.com/watch?v=KD2mfnBkfmk
What You Say?
What has changed for Internet users?

- In one sense, nothing changed this week, because the requirement to obtain customer consent before sharing or selling data is not scheduled to take effect until at least December 4, 2017.

- ISPs didn’t have to follow the rules yesterday or the day before, and they won’t ever have to follow them if the rules are eliminated.
Why did ISPs fight so hard against these privacy rules?

- ISPs want to be the advertising powerhouse. AT&T, Comcast, Verizon are heavily invested in online-advertising and they have a lot of data that can be valuable to advertisers.
- They want to compete with Google and Facebook in the advertising space. This is going to be their new frontier, a new way for them to increase their profits.
- ISP lobby groups have argued that privacy rules would prevent them from showing Internet users more relevant advertising and would prevent ISPs from competing in the online advertising market - the privacy rule is unfair.
Web Tracking

▶ a.k.a., third-party web tracking, or tracking.
▶ as you browse the web, your browsing behavior may be observed and aggregated by third-party websites ("trackers") that you don’t visit directly.
▶ these websites identify, and collect information about user - generally in the form of some subset of web browsing history.
▶ has become a topic of increased public debate.
Targeted Advertising

- a form of advertising that focuses on certain traits of the consumer, these traits are based on the product or person the advertiser is promoting.
- located in areas where consumers with those traits are likely to come upon.
- these traits can either be demographic which are focused on race, economic status, sex, age, level of education, income level and employment or they can be psychographic focused which are based on the consumer’s values, personality, attitudes, opinions, lifestyles and interests. They can also be behavioral variables, such as browser history, purchase history, and other recent activity.
- has proven to be beneficial for the advertiser as it is cost efficient because it is focused on certain traits and the consumers who are likely to have a strong preference will receive the message instead of those who have no interest and whose preferences do not match a product’s attribute.
Sen. Markey’s campaign website

- trackers used: Google, Facebook, Twitter, and Optimizely
Sen. Markey’s Facebook tracker

Based on https://www.facebook.com/about/privacy/, Facebook tracker collects personal information at all four levels of sensitivity

- **Anonymous** (Ad Views, Analytics, Browser Information, Cookie Data, Date/Time, Demographic Data, Hardware/Software Type, Internet Service Provider, Interaction Data, Page Views, Serving Domains, Details Undisclosed)

- **Pseudonymous** (IP Address (EU PII), Location Based Data, Clickstream Data, Device ID (EU PII))

- **Personally Identifiable Information** (Name, Address, Phone Number, Email Address, Login, EU- IP Address, EU- Unique Device ID)

- **Sensitive** (Financial Information)
Sen. Markey’s Google tracker

Based on
http://www.google.com/intl/en/policies/privacy/, Markey’s tracker for Google has an even more intrusive privacy policy than Facebook.

- **Anonymous** (Ad Views, Analytics, Browser Information, Cookie Data, Date/Time, Demographic Data, Hardware/Software Type, Internet Service Provider, Interaction Data, Page Views, Serving Domains.)
- **Pseudonymous** (IP Address (EU PII), Search History, Location Based Data, Device ID (EU PII).)
- **PII** (Name, Address, Phone Number, Email Address, Login, EU- IP Address, EU- Unique Device ID.)
- **Sensitive** (Financial Information, Health Information, Sensitive Data (details undisclosed))

All of this information can be shared with 3rd parties – even the financial and health data – under Google’s policy. Markey deploys DoubleClick, DoubleClick Ad Exchange Buyer, Google Analytics, Google Dynamic Remarketing, and Google+ trackers. Each tracker
Sen. Wyden’s campaign site

- https://www.standtallforamerica.com
- 19 distinct trackers are deployed to share as much user information with third parties as possible.
- Neustar admits to collecting and sharing Financial Information, Social Security Number/Tax ID, and Health Information. New Relic, PubMatic, ScoreCard Research Beacon, and Dstillery all have policies similar to Neustar’s in terms of collection.
ISP access to consumer data is limited and often less than access by trackers.

Today, the average Internet user has 6.1 connected devices, many of which are mobile and connect from diverse and changing locations that are served by multiple ISPs. Any one ISP today is therefore the conduit for only a fraction of a typical user’s online activity.

Trackers dominate in cross-device tracking. The most commercially valuable information about online users, which can be used for targeted advertising and other purposes, is coming from other contexts such as social networks and search. Market leaders like Google and Facebook are combining these contexts for insight into a wide range of activity on each device and across devices.
VPN: there are hundreds of VPN providers out there today.

- VPN provider may keep logs of customer activity
- Free VPN: Operating a business like a VPN service takes considerable effort and cost, and it’s very likely that anyone operating a free VPN service is also somehow monetizing your use of their service in some way — probably in an way that may be at odds with your reason for using the service in the first place.

Tor (The Onion Router): Tor is a distributed network that tries to preserve anonymity by routing traffic through a series of relays. Likely to be far slower than your average VPN; operators of Tor exit nodes can see traffic going back and forth.
Protect Yourself - Encryption with HTTPS

▶ if you visit an HTTPS site, ISPs will see only the domain rather than each page you visit. For example, the ISP knows when you visit https://www.pornhub.com, but it doesn’t see which video you are watching.

▶ ISPs might be able to figure out where you bank, your political views, and your sexual orientation based on what sites you visit.

▶ An ISP might notice that a particular tablet often visits children’s websites. From that, “they can infer that this tablet then belongs to a child” and deliver advertising targeted to kids. “The level of information that they can figure out is beyond what even most customers expect,” - said Dallas Harris, an attorney who specializes in broadband privacy.
Turning on your Web browser’s private or incognito mode will not prevent ISPs from seeing your Internet activity.

Google, for example, says that Chrome’s incognito mode prevents the Chrome browser itself from saving the sites that you visit, but does not stop ISPs and websites from seeing which websites you’ve visited.
Comey: No such thing as absolute privacy in America
https://www.youtube.com/watch?v=rofrzWVzJrA
FBI’s James Comey: ‘There Is No Such Thing As Absolute Privacy In America’ https://www.youtube.com/watch?v=9gKcnYzeM9o
References

A large portion of the material is adapted from:

- How ISPs can sell your Web history—and how to stop them, JON BRODKIN: https://arstechnica.com/information-technology/2017/03/how-isps-can-sell-your-web-history-and-how-to-stop-them/
- Senate votes to let ISPs sell your Web browsing history to advertisers, JON BRODKIN: https://arstechnica.com/tech-policy/2017/03/senate-votes-to-let-isps-sell-your-web-browsing-history/
- Online Privacy and ISPs
  http://www.iisp.gatech.edu/sites/default/files/images/online_privacy_and_isps.pdf
Backup Slides
S.J.Res.34 - A joint resolution providing for congressional disapproval under chapter 8 of title 5, United States Code, of the rule submitted by the Federal Communications Commission relating to "Protecting the Privacy of Customers of Broadband and Other Telecommunications Services".

https://www.congress.gov/bill/115th-congress/senate-joint-resolution/34/all-actions?q=%7B%22roll-call-vote%22%3A%22all%22%7D
Hands-on - Choose how Google use your information

▶ https://myaccount.google.com/privacy
The Privacy Rule

- "Protecting the Privacy of Customers of Broadband and Other Telecommunications Services"
- Approved by Federal Communications Commission, on Nov 2nd, 2016.
The FCC’s privacy rules would require ISPs to get opt-in consent from consumers before selling or sharing personal information including geo-location data, financial and health information, children’s information, Social Security numbers, Web browsing history, app usage history, and the content of communications. Opt-out requirements would have applied to less sensitive data such as e-mail addresses and service tier information.

The opt-in and opt-out provisions would have taken effect as early as December 4, 2017.

Republicans say that the Federal Trade Commission should have authority over ISPs’ privacy practices, instead of the Federal Communications Commission (FCC).
Other ISPs

- Verizon
- AT&T
- Comcast
- T-Mobile
- Sprint
Other videos

Gary Kovacs: Tracking the trackers
https://www.youtube.com/watch?v=f_f5wNw-2c0