Cybersecurity Topics

Privacy and Social Media

CSUSM Cyber Education Hub

Privacy & Social Media Issues

- What is “privacy” in the context of the internet and social media?
- How is this information collected?
- Why is this information valuable?
- What is the role (controversy!) of social media here?
- What is “microtargeting”?
- What about “fake news” on social media?
- How do I protect my privacy?

What is this “privacy” thing?

- Let’s define “privacy” – ability to control
- Changes in attitude over time
- “I have nothing to hide”
  - Example box of receipts
  - Ask yourself…
- Privacy in the US vs privacy in Europe
- Examples
  - Price discrimination
  - Social media feed

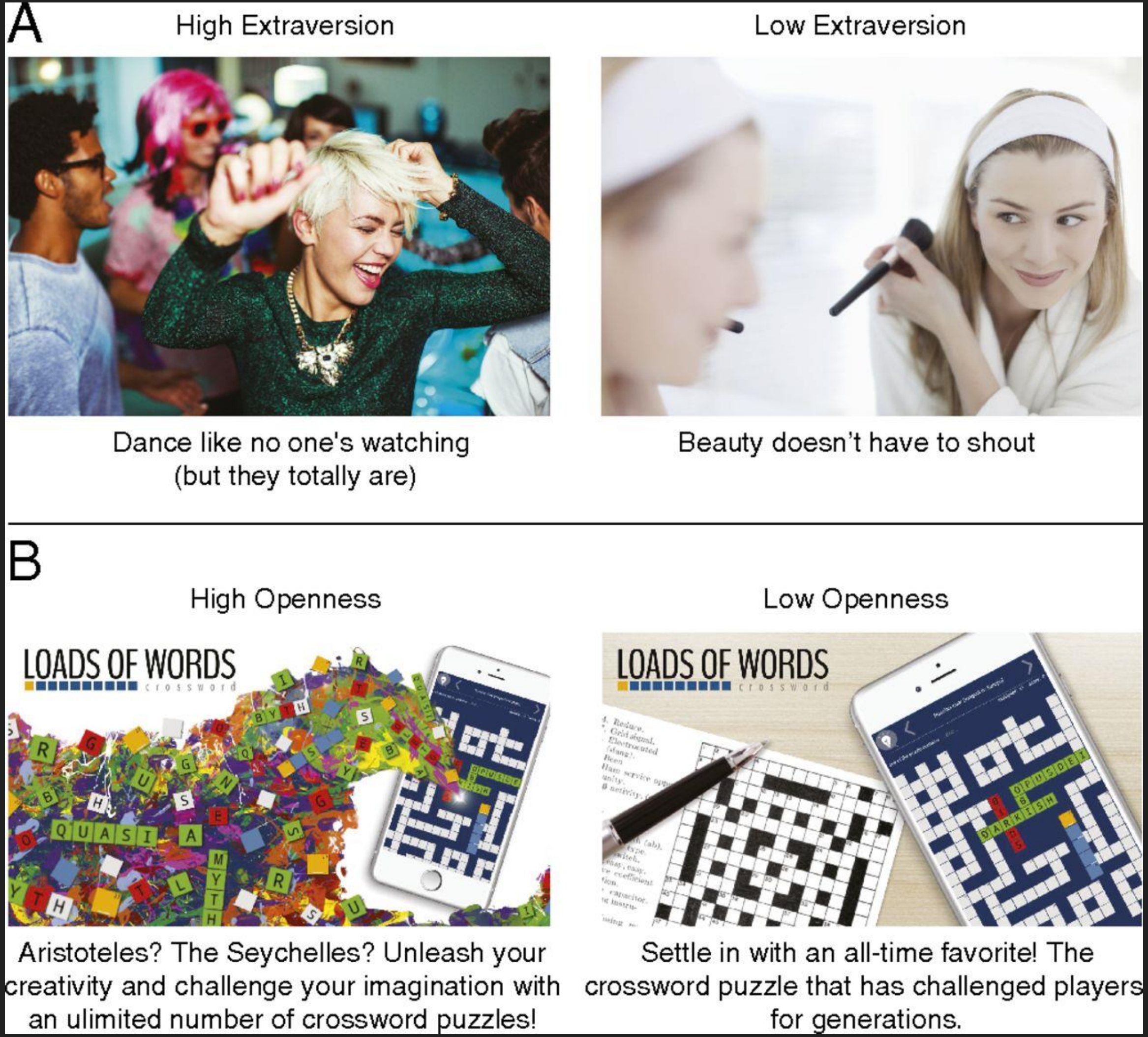
Who (besides you) cares about your information?

- There are “data broker” companies who collect your information
- Early: credit and financial info (this is how your credit score is calculated) reported by financial agencies to a central repository.
- More recent: Browsing and consumer activity, location information based on your cell phone.
- Future: Facial recognition, digital identity, AI analysis of your messages and posts
- Why? Data brokers maintain enormous data warehouses of information
- Organizations can purchase this information for marketing, research, political campaigns… you name it.

How does social media fit into this?

- Info from your social media posts, likes, and friend networks can be collected and used.
- When you participate in "personality surveys' or other social media interactive games, ("how many of these books have you read?", "how many countries have you visited?", "which Disney Princess are you?"
- This data can be collected, added to the data warehouse and sold to organizations that want to identify a certain segment of people.
- Marketing campaigns will give you ads designed for your personality type (based on the data they've collected about you.)
- Profile developed to show your "Big Five personality traits":
  - Openness to experience (curious vs cautious)
  - Conscientiousness (organized vs easy-going)
  - Extraversion (outgoing vs reserved)
  - Agreeableness (friendly vs detached)
  - Neuroticism (nervous vs confident)

Examples of targeted advertising


A
High Extraversion
Low Extraversion
Dance like no one's watching
(but they totally are)
Beauty doesn't have to shout
B
High Openness
Low Openness
LOADS OF WORDS
crossword
Aristoteles? The Seychelles? Unleash your creativity and challenge your imagination with an ulimited number of crossword puzzles!
LOADS OF WORDS
crossword
Settle in with an all-time favorite! The crossword puzzle that has challenged players for generations.

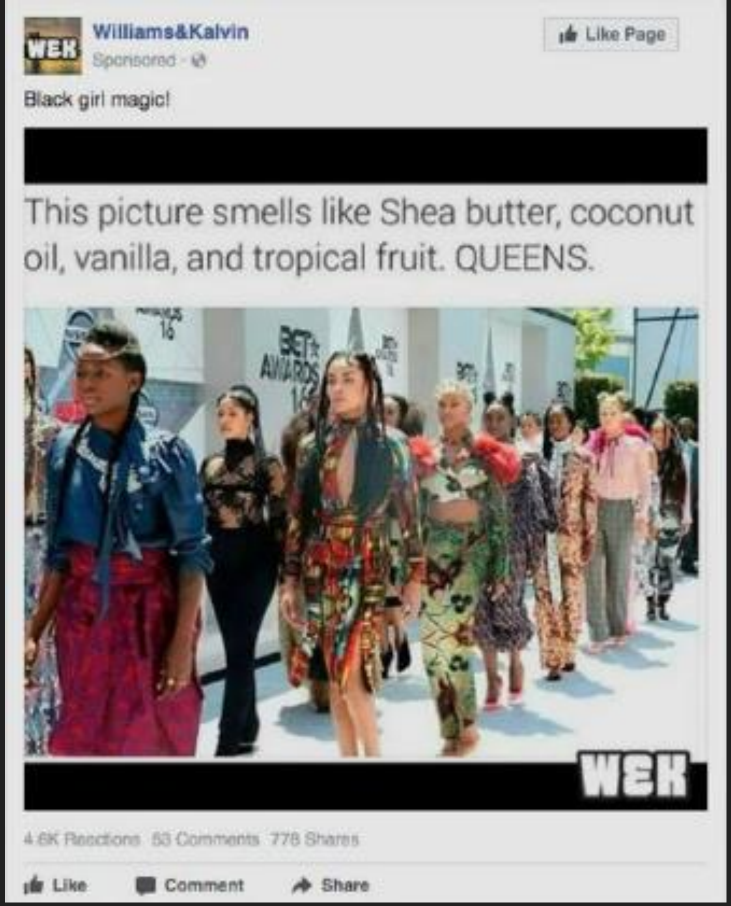
Examples of ads aimed at audiences characterized by high and low extraversion (A) as well as high and low openness (B).

S. C. Matz et al. PNAS 2017;114:48:12714-12719

https://www.pnas.org/content/114/48/12714

What is “microtargeting”

- Microtargeting is the use of information collected about individuals to design and information campaign to influence a particular subset of the population
- Organizations (allegedly the Russians) used “microtargeting” to influence the US Election
- Short clip from a TV show: The Good Fight - Microtargeting
- https://www.nytimes.com/2018/08/16/technology/facebook-microtargeting-advertising.html
- https://www.wired.com/story/cambridge-analytica-facebook-privacy-awakening/



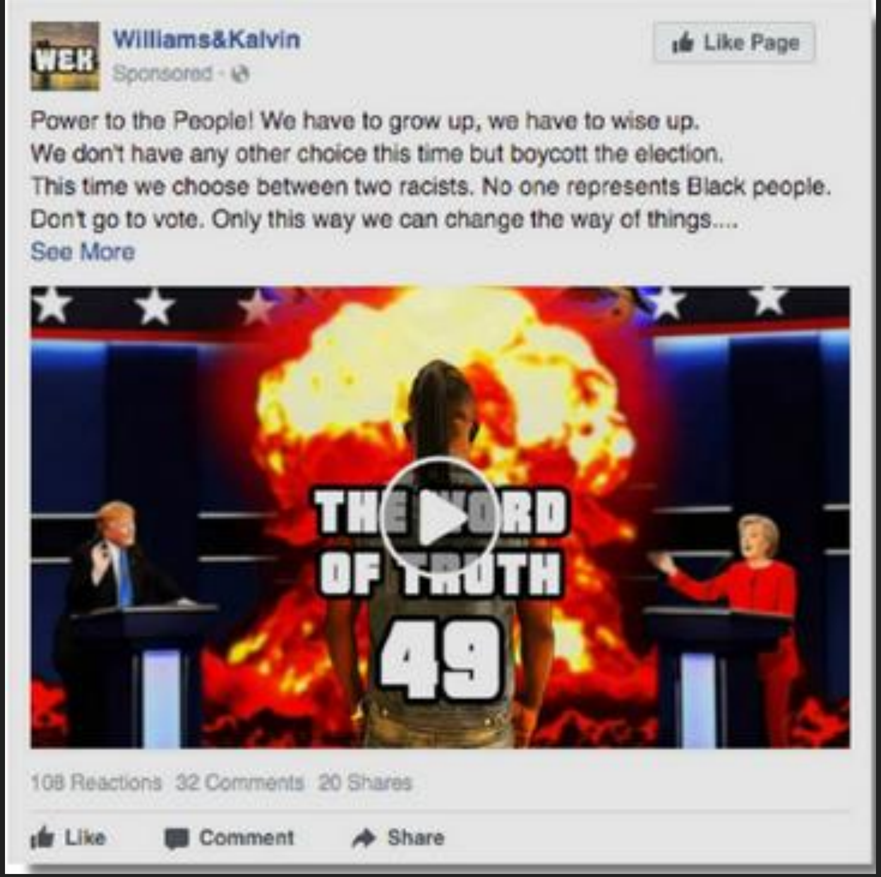
Williams&Kalvin
Sponsored ·

Black girl magic!

This picture smells like Shea butter, coconut oil, vanilla, and tropical fruit. QUEENS.

4.6K Reactions 53 Comments 778 Shares

Months before the 2016 election, "…A Russian group first targeted Facebook users interested in Martin Luther King Jr., African-American history or Malcom X with a benign-seeming ad."



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Power to the People! We have to grow up, we have to wise up.
We don't have any other choice this time but boycott the election.
This time we choose between two racists. No one represents Black people.
Don't go to vote. Only this way we can change the way of things....
See More

108 Reactions 32 Comments 20 Shares

"The Russian group then targeted the same users with an ad telling them that they should not vote in the presidential election."

https://www.nytimes.com/2018/08/16/technology/facebook-microtargeting-advertising.html

From the documentary “The Great Hack”, available on Netflix.

In this clip: a former Cambridge Analytica executive showing how they “flipped” swing states in the 2016 election by use of microtargeting.

From the documentary “The Great Hack”, available on Netflix.

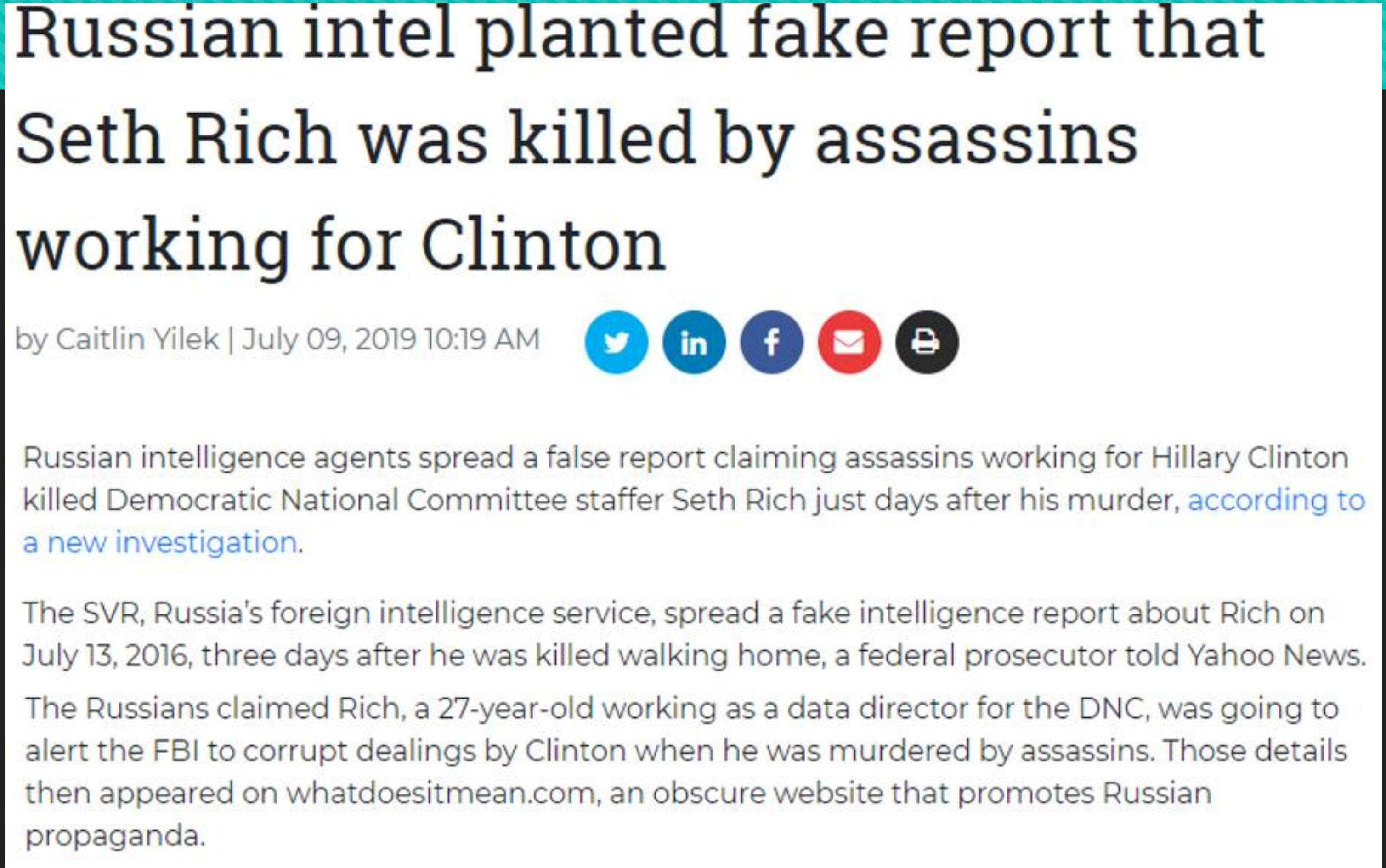
In this clip: They are viewing a recording of a Cambridge Analytica sales team presentation on influencing voters to change the outcome of an election.

Fake news!

- The rise of social media allowed fake news to spread as people would “like”, “retweet” or otherwise spread information whether or not it was accurate or truthful.
  - Step 1: Fake social media personas post legitimate content to get followers.
  - Step 2: Small “independent news” site creates a fake article designed to cause outrage, damage, etc
  - Step 3: Fake persona posts about the fake article and links to it.
  - Step 4: Social media bots and followers repost.
- Result: Real people think that because fake social media person had posted real news in the past, fake news must be true.

- Play a game: visit https://getbadnews.com

Real example - fake news in action



Russian intel planted fake report that Seth Rich was killed by assassins working for Clinton

by Caitlin Yilek | July 09, 2019 10:19 AM

Russian intelligence agents spread a false report claiming assassins working for Hillary Clinton killed Democratic National Committee staffer Seth Rich just days after his murder, according to a new investigation.

The SVR, Russia's foreign intelligence service, spread a fake intelligence report about Rich on July 13, 2016, three days after he was killed walking home, a federal prosecutor told Yahoo News.

The Russians claimed Rich, a 27-year-old working as a data director for the DNC, was going to alert the FBI to corrupt dealings by Clinton when he was murdered by assassins. Those details then appeared on whatdoesitmean.com, an obscure website that promotes Russian propaganda.

From: https://www.washingtonexaminer.com/news/russian-intel-planted-fake-report-that-seth-rich-was-killed-by-assassins-working-for-clinton

See also: https://www.washingtonpost.com/politics/2019/07/09/dont-blame-seth-rich-conspiracy-russians-blame-americans

https://www.nytimes.com/2016/11/20/business/media/how-fake-news-spreads.html?_r=0

Protecting yourself…

- …from your personal information being exposed –
  - Be careful about providing that information – avoid when possible
  - Be thoughtful about what you post – will you regret it later?
- …from your personal information being used to against your interests –
  - Use your browser in incognito mode (prices)
  - Clear browser cache and cookies
  - Limit "log in with Facebook" or similar ways you can be tracked
- …from being fooled by fake news targeting your based on your profile
  - Look at the news source – make sure it comes from "real" news agency whose reputation will be destroyed if it is fake – look for "Associated Press" or "Reuters" or "NPR" or "New York Times", etc
  - Even in these, distinguish "Opinion" from fact-based news reporting. News publications will publish opinions which are … just opinions