

SOCIAL MEDIA

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Course Evaluations

- Be sure to complete your ISE369/POL369 course evaluation (now is a great time)
- https://www.stonybrook.edu/celt/academic-assessment/couse_evals_students.php

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Reading

- Transparency: What's Gone Wrong with Social Media and What Can We Do About It?, Wael Ghonim and Jake Rashbass, Harvard Kennedy School, March 27, 2018
- Are We Entering a New Era of Social Media Regulation?, Dipayan Ghosh, Harvard Business Review, January 14, 2021, <https://hbr.org/2021/01/are-we-entering-a-new-era-of-social-media-regulation>
- Cambridge Analytica – Wikipedia, https://en.wikipedia.org/wiki/Cambridge_Analytica

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References

- The Chaos Machine, Max Fisher, Little, Brown, 2022
- Mindf*ck: Cambridge Analytica and the Plot to Break America, Christopher Wylie, Random House, October, 2019
- Amazon's Mechanical Turk has Reinvented Research, Alexandra Samuel, daily.jstor.com, May 15, 2018
- Social Media & the January 6th Attack
<https://www.washingtonpost.com/documents/5bfed332-d350-47c0-8562-0137a4435c68.pdf>

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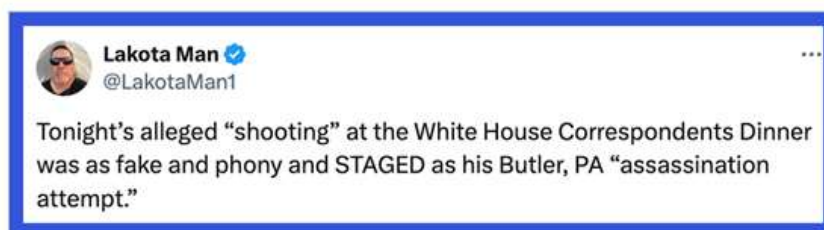
Session Objectives

- Understand the way social media amplifies certain content and inhibits consideration of complex issues
- Understand how botnets and trolls can be used to influence discussion of political topics
- Understand how Cambridge Analytica used Facebook data to deliver targeted ads concerning the 2016 Presidential election

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Social Media Example

- NewsGuard reports that “staged” shooting claims hit 80 million views (and counting) on X alone
- Immediately after a gunman exchanged fire with law enforcement officers outside the White House Correspondents’ Dinner on April 25, a cluster of anti-Trump social media accounts began to claim that the shooting was orchestrated by the Trump administration



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Social Media Issues Summary

- Ubiquitous fact-based journalism is in decline
- Social media information delivery is customized to the “needs” of individual users
 - Google search
 - Social media news feeds
- Social media \$\$ (e.g., revenue, valuation) is highly correlated with user engagement
- User engagement on social media is correlated with anger
- Proprietary databases exist with detailed information on most voters
- Microtargeting techniques allow custom messages to be delivered to individuals
- Social media algorithms to recommend information are usually not publicly available

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Information Streams

- Social media organizations provide information streams to users
- Algorithms decide, based on ranking criteria, which content to prioritize for each individual user
- Platforms optimize their algorithms to get and hold users’ attention
- By keeping users on-line, those users can be sold products and ideas, generating revenue for the social media company
- A user’s history (e.g., clicks, likes, comments, etc.) is used to determine a user’s potential for continued engagement
- Origins and accuracy of the content is frequently irrelevant

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Social Media Usage

- 5.66 billion social media users (approaching 2B on TikTok)
- The average social media user spends over 2 hours per day on the platform
- TikTok is the most popular, with users spending an average of over an hour per day; Facebook and Instagram almost an hour per day
- Current Facebook (and others) content includes a significant amount of political data
- 2034 Pew survey reported that over 50% of adults in the US use social media to acquire information about current affairs

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Consequences

- Algorithms optimized for engagement increase mob-like behavior
 - Increased polarization and sensationalism - likes increase with “indignant disagreement”
 - Social media algorithms have led to increased misinformation and fake news – in 2016, fraudulent pages (e.g., Blacktivist) collectively gained over 340 engagements before being deleted by Facebook
 - Ideological segregation – contributes to the spread of fake news and misinformation. Filter bubbles foster confirmation bias

“Consuming information that conforms to our ideas of the world is easy and pleasurable [whereas] consuming information that challenges us to think in new ways or question our assumptions is frustrating and difficult.”, Eli Pariser, The Filter Bubble

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Human Cognition

Due to Daniel Kahneman,
Nobel Prize winner

- System one – fast and instinctive thought
 - Requires minimal mental exertion or concentration
 - Sometimes generates errors
- System two – slower thinking
 - Demands more engagement and effort
 - Avoids instinctive errors
- Engagement-driven algorithms encourage System one thinking

Neuroplasticity is the brain's ability to reorganize itself by forming, modifying, and strengthening neural connections throughout its entire life

Our bodies are programmed to consume fat and sugars because they're rare in nature.... If we're not careful, we're going to develop the psychological equivalent of obesity. Danah Boyd, Microsoft principal researcher

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Dominance of Optimizing for Engagement

- More opportunities to show ads (which generate revenue for the social media platform)
- Very difficult to measure what's in the public interest
- Limited public policy or regulation of social media
- Social media algorithms not publicly available



"Personally, I think the idea that fake news on Facebook, which is a very small amount of the content, influenced the election in any way — I think is a pretty crazy idea. Voters make decisions based on their lived experience." – Mark Zuckerberg, November 2016

Image: theverge.com

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Regulation of Social Media Companies

- Pew Research Center survey – April 2021
 - 56% of respondents think social media companies should be more regulated (increase from 2018 survey)
 - 68% of respondents think social media companies have too much power
- Congressional Hearings (2021)
 - Facebook whistleblower (Frances Haugen) testified that Facebook consistently chose to maximize growth rather than implement safeguards
 - Released “Facebook Files”



Image: npr.org

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Suggested Regulation of Social Media

- Allow private individuals to sue social media companies for harm caused by algorithms
- National privacy law
- More transparency concerning social media algorithms (e.g., a Public Interest API)

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Social Media Data That Could be Shared

- Public posts data
 - created by individual, group, or page
 - Reach and engagement data
 - Top trending stories, by grouping
 - Influencers that enabled a post to reach viral status
- Advertising campaigns (especially micro-targeted ads)
 - Content of the ads
 - Who is purchasing ads and which groups are targeted
- Censored content
 - Content description
 - Time before removal

Social media datasets analyzed
in subsequent session

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Can Social Media Activity be Manipulated?

- False topics can be easily introduced
- False activity related to real and fake topics can be created using botnets

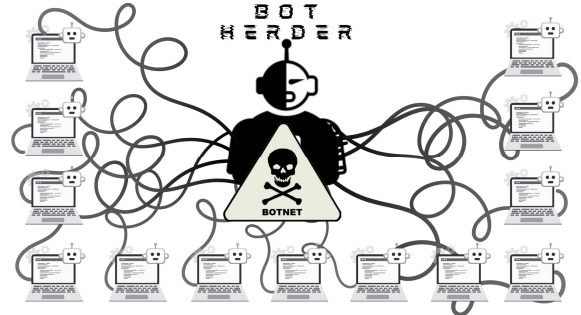


Image: GridinSoft.com

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Botnet

- Collection of Internet-connected computers whose security has been compromised and are partially controlled by a 3rd party



Bot (Web robot) – SW that runs automated tasks over the Internet

Some estimate that ¼ of the 1B computers worldwide are part of some botnet

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Cambridge Analytica – Facebook Scandal

- Details revealed in
 - Parliament and Congressional testimony
 - Investigative reporting
 - Christopher Wylie book

“Messages and emotions, not computers and numbers, are what creates winning campaigns”
– Christopher Wylie

“With the ascendancy of social media, we have been forced to place our trust in political campaigns to be honest, because if lies are told, we may never notice.” – Christopher Wylie



Image: Getty Images

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Facebook - Cambridge Analytica (CA) Timeline

- 2013 - Christopher Wylie joins SCL
- 2014 – SCL received funding (\$15M-\$20M) from the Robert Mercer family, arranged through Paul Manafort
- 2015 - CA established as a subsidiary of SCL Group in order to circumvent laws concerning foreign national involvement in US elections
- 2015 - Facebook personal data used to develop psychological profiles of most US voters (5,000 data points on over 220M Americans)
- March 2018 – publication of CA analysis details
- May 2018 – CA filed for bankruptcy and closed



Very likely that CA techniques are already being used by other information gatherers (e.g., Palantir)

Image: NPR.org

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Steve Bannon

- Editor of Breitbart News, following the death of Andrew Breitbart
- Understood the importance of cultural power and informational dominance
- Interested in a culture change in the US
- Charged with mail fraud in 2020 and was pardoned before his trial date



Image: Wikipedia

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Goal of Wylie's Work at SCL/CA

- Determine which potential voters could be influenced
- Determine messages that could influence specific voters
- Above goals require data
- Wylie's experience with Obama and Brexit campaigns expanded data used for analysis
 - Subscriptions
 - Mortgage data
 - Car ownership

Related to microtargeting

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Personality Factor in Voting Behavior

- 5-factor personality model used to predict voting tendencies
 - Openness
 - Conscientiousness
 - Extraversion
 - Agreeableness
 - Neuroticism

Considered using a psychological base of voter analysis instead of a geographic or demographic base

This personality model developed in the UK in the early 2010s became the basis of Cambridge Analytica work

“Polling firms influence politicians’ ideas of what makes up voter identity, which are usually horrendously oversimplified or just plain wrong.”
Christopher Wylie

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Social Media Attack Strategy

- CA attempted to enhance and encourage an alt-right insurgency in the United States
- Targeted individuals included people high on the narcissism scale
- Narcissists are susceptible because they are
 - More prone to feelings of envy and entitlement
 - More likely to develop an exaggerated suspicion of harassment, persecution, victimhood, or unfair treatment
- Social media provided a mechanism to identify targets and enhance radical behavior



Image: Reuters

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Weaponized Data

- Goal of Bannon and SCL/CA was to change the culture in the US by
 - Identifying the segment of the population capable of change
 - Deliver a targeted narrative to exploit psychological weaknesses (e.g., cognitive bias)
- Cognitive biases are the errors in our thinking that generate flawed subjective interpretations of information
- Examples – confirmation bias, bandwagon effect, in-group/out-group, negativity bias, and belief that a society is in decline

Availability heuristic – a bias that explains why people who see more news reports of violent murders think that society is becoming more violent

Affect heuristic – use of mental shortcuts influenced by emotion

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Right-Wing Media

- Fox News and right-wing media personalities (e.g., Tucker Carlson)
- SCL learned that
 - Fox News fuels anger, and that anger disrupts the ability to seek, rationalize, and weigh information
 - Fox's audience is told they are part of a group of "ordinary Americans"
 - Audience reminded that if you are an "ordinary American" this is how we think
 - Primes people for *identity-motivated reasoning*
 - Allows people to ignore sexist and racist statements and behaviors



Does left-wing media also fuel anger?

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Trump Look and Feel

- "Uniforms ... are incorporated into the wearer's identity, transforming their thinking from *This is what I believe* into *This is who I am*... Oftentimes much of what is promised is not about any tangible policies, but rather a new look and feel for a place or culture." – Christopher Wylie



Image: Shutterstock

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Information Warfare

- US has historically valued military hardware
- US has historically undervalued information operations (especially compared with Russia)

“In informational combat, the payload is often a story – a rumor deployed to trick a General or a cultural narrative intended to pacify a village. And just as the military invests in chemistry to inform bomb building, it also tries to research what kinds of narratives will yield the biggest impact.” – Christopher Wylie

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Facebook Data

Run up to the 2016 election

- CA needed psychological profiles of US voters
- Facebook had enormous amounts of data about its users (likes, groups, follows, clicks, etc.)
- Facebook data used by Facebook to target ads
- Facebook privacy policy did not require express consent for an app to collect data from an app user's friends
- No notification to friends that data was being harvested
- The average Facebook user has between 150 and 300 friends

A single app with a limited number of users had the potential to capture 300 million profiles

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How Did CA Relate Facebook Data to Personality Data?

- Amazon MTurk
 - Diverse on-demand workforce available through Amazon
 - Compensates people for doing small distributed on-demand work
- CA used MTurk to pay people a small amount (\$1-\$2) to take a psychological profile test
- To receive payment, MTurk workers would download an app that would collect the data and pull the user's Facebook data
- Each worker's Facebook data was used to correlate with the results of the psychological profile
- Once the profiling algorithm was trained, it would be used to profile Facebook friend data



Image: jstor.com

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MTurk/CA Algorithm

- Trained to look for personality profiles that Bannon wanted
- Examples
 - Fair mindedness
 - Sensational and extreme interests (used to recognize deviant behavior)
 - Militarism
 - Violent occultism
 - Intellectual activities
 - Occult credulousness
 - Wholesome interests

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Early CA Data Prototype

- Prototype presented to Bannon included data on tens of millions of US voters
- Data included
 - Name
 - Photo
 - Address
 - Car
 - Voting
 - Income
 - Gun ownership
 - More

Meeting participants took turns calling individuals to confirm the data

“We had reconstructed tens of millions of Americans in silico, with potentially hundreds of millions more to come.” – Christopher Wylie

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Early CA Observations

- By 2014-2015 Bannon had full control of CA
- Bannon felt that American identity went beyond skin color, religious preference, or gender
- CA observed that many Americans felt closeted (not just gay people)
- Straight white men had grown up with social privileges (casual racism and misogyny), which were now eroding
- Bannon suspected that many Americans felt silenced by the threat of being labelled racist
- “These men began to experience the burden of the closet and did not like the feeling of having to change who they felt they were in order to ‘pass’ in society.” – Christopher Wylie
- Some of these men began congregating in forums

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Forms of Racism

CA conducted studies to connect evangelical beliefs with racial messages

- Bannon believed that many Democrats held covert racism, such as
 - Avoiding a racial group (e.g., gated communities)
 - Symbolic (stereotypes, double standards)
- Bannon believed that Democrats were using minorities for their own political ends
- CA determined that attacks on a candidate's racial views had the effect of solidifying voters' covert racism
- CA found that people who displayed a *just-world hypothesis* were more likely to believe that minorities were to blame for socioeconomic disparities

Just-world hypothesis (or fallacy) is a cognitive bias proposing that people believe the world is fundamentally fair, assuming "people get what they deserve"

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CA Anger Experiments

- CA conducted experiments to observe the extent to which anger interferes with information seeking
- CA observed that when people were angry, their need for complete and rational explanations were reduced
- Anger led people to be indiscriminately punitive

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CA Technique

- Use focus groups and qualitative observations to learn what people cared about (e.g., deep state, term limits, guns, etc.)
- Develop hypotheses about how to influence opinions
- Test hypotheses in online panels
- Used Facebook profiles to develop neural network algorithms to make predictions
- Developed fake pages on Facebook and others
- When users joined groups, CA would post material to further inflame them
- Once a CA group reached a threshold, they would set up a physical event

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Identifying People Prone to Antisocial Behavior

- CA wanted to also identify people who could be provoked
- CA looked for people who exhibited traits of narcissism (extreme self-interest), Machiavellianism (ruthless self-interest), and psychopathy (emotional detachment)
- These people were targeted via Facebook groups, ads, or articles
- Information fed to targeted individuals emphasized threats

Microtargeting
techniques were used

Humans evolved with a special
attentiveness towards potential
threats

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Sharing of Data with Russia

- CA had many meetings with Russians, but no conclusive evidence of coordination with the Russia attack on the 2016 election
- “Manafort had caused internal polling data to be shared with Kilimnik and the sharing continued for some period of time after their August meeting” – Mueller Report

Not a great deal of detail in the Mueller report concerning the nature of the polling data that was shared

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Facebook Settlement

- Facebook’s parent company, Meta agreed to a \$725M privacy lawsuit settlement in late 2022
- Based on release of 87 million users' personal data
- Data used by the 2016 Trump campaign

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Social Media and the January 6th Attack

- Draft attorney work product listed in References section
- Summary included in the Select Committee final report
- Raises many interesting issues related to social media



Image: The Atlantic

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January 6 Report Key Findings

- Social media companies failed to anticipate post-election violence
- Social media platforms delayed response to far-right extremism helped to facilitate the attack
- Far-right platforms grew when major platforms moderated
- Law enforcement not well connected with social media platforms
- Facebook did not attempt to deal with election delegitimization
- Social media platforms feared being labelled as overly partisan

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US House Select Committee

- Investigated January 6th attack on the US Capital
- Established in May 2021 - after the attack
- Interviewed over a thousand people and reviewed over a million documents
- December 2022 committee voted unanimously to refer Donald Trump and John Eastman to DOJ for prosecution
- Dissolved in January 2023
- Published 845-page final report

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Key Findings

- Many social media platforms monitored posts, and became aware of false claims, angry rhetoric, coordination among protest groups, etc.
- Facebook team noticed that the “Stop the Steal” movement was propagated by a small core of individuals
- Facebook took down relatively few of the violent groups
- Twitter employees warned management that Trump was driving violent incitement on the platform

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Twitter Acquisition

- Elon Musk acquired Twitter in October 2022
- Renamed as X and taken private (with SpaceX, it is the world's most valuable private company)
- Post acquisition
 - Fired over 75% of employees
 - Reduced departments that monitored content
 - Restored banned accounts
 - Adopted a more free-speech approach

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Questions

- To what extent should social media sites monitor and control traffic on their sites, especially for
 - Disinformation,
 - Incitement,
 - Coordination of protests, and
 - Hate speech?
- Should legislation attempt to control social media sites?

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Did You Achieve the Session Objectives?

- Understand the way social media amplifies certain content and inhibits consideration of complex issues
- Understand how botnets and trolls can be used to influence discussion of political topics
- Understand how Cambridge Analytica used Facebook data to deliver targeted ads concerning the 2016 Presidential election