

# Data and Society

## Data and Elections 1 – Lecture 10

3/4/21

## Today (3/4/21)

- Op-ed due 11:59 p.m. on March 15, instructions in 3/1 Lecture
- Lecture / Discussion – Data and Elections 1
- Presentations

# Reading for 3/8

- **Political Campaigns and Big Data**, Journal of Economic Perspectives, [https://scholar.harvard.edu/files/todd\\_rogers/files/nickerson\\_and\\_rogers.2014.pdf](https://scholar.harvard.edu/files/todd_rogers/files/nickerson_and_rogers.2014.pdf)

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## Political Campaigns and Big Data<sup>†</sup>

David W. Nickerson and Todd Rogers

**T**he all-encompassing goal of political campaigns is to maximize the probability of victory. To that end, every facet of a campaign is evaluated by how many votes an activity will generate and at what cost. To perform this cost-benefit analysis, campaigns need accurate predictions about the preferences of voters, their expected behaviors, and their responses to campaign outreach. For instance, efforts to increase voter turnout are counterproductive if the campaign mobilizes people who support the opponent. Over the past six years, campaigns have become increasingly reliant on analyzing large and detailed datasets to create the necessary predictions. While the adoption of these new analytic methods has not radically transformed how campaigns operate, the improved efficiency gives

Date	Topic	Speaker	Date	Topic	Speaker
1-25	Introduction	Fran	1-28	The Data-driven World	Fran
2-1	Data and COVID-19	Fran	2-4	Data and Privacy -- Intro	Fran
2-8	Data and Privacy – Differential Privacy	Fran	2-11	Data and Privacy – Anonymity / Briefing Instructions	Fran
2-15	NO CLASS / PRESIDENT’S DAY		2-18	NO CLASS	
2-22	Legal Protections	Ben Wizner	2-25	Data and Discrimination 1	Fran
3-1	Data and Discrimination 2	Fran	3-4	Data and Elections 1	Fran
3-8	Data and Elections 2	Fran	3-11	NO CLASS / WRITING DAY	
3-15	Data and Astronomy (Op-Ed due)	Alyssa Goodman	3-18	Data Science	Fran
3-22	Digital Humanities	Brett Bobley	3-25	Data Stewardship and Preservation	Fran
3-29	Data and the IoT	Fran	4-1	Data and Smart Farms	Rich Wolski
4-5	Data and Self-Driving Cars	Fran	4-8	Data and Ethics 1	Fran
4-12	Data and Ethics 2	Fran	4-15	Cybersecurity	Bruce Schneier
4-19	Data and Dating	Fran	4-22	Data and Social Media	Fran
4-26	Tech in the News	Fran	4-29	Wrap-up / Discussion	Fran
5-3	NO CLASS				

# Lecture – Targeting voter behavior

- Behavioral science voter targeting
  - Simulmatics and the 1960 election
  - Cambridge Analytica and the 2016 election
- How does psychographic targeting work?
  - Is it effective? Is it illegal?
- Discussion

# Simulmatics Corporation

- Operated 1959-1970
- One of the first companies to simulate and predict human behavior for commercial purposes
- Company advised the Kennedy campaign in 1960, Department of Defense on the Vietnam War, etc.



# Simulmatics and the 1960 Election

- Company worked for JFK Campaign
- Predictive approach: categorize voters, predict how they will respond to messages, report results to campaign
- Data: Simulmatics used polling data (punch cards!) from voter surveys.
  - Data aggregated into 480 possible voter types (“New England Catholic white woman who voted for Kennedy”) and reduced them to 60 issue clusters.
  - Used clusters and issues to construct an imaginary population of 3000 possible individuals
- Issues tested by querying computer models.
- JFK campaign particularly interested in Civil Rights with an eye to attracting Black voters.

# Simulmatics innovations

- **Mass cultural model** predated Amazon and Netflix
- **Partnership with NY Times** and election coverage launched data journalism and data-driven election predictions
- Work to **assess and predict voter behavior** predated Cambridge Analytica
- Work with Defense Department during Vietnam War promoted the notion of **war simulation** to optimize war reality.



# Impacts of technology – predictions from 50+ years ago

- **Ithiel de Sola Pool** (Simulmatics, MIT): “By 2018, it will be cheaper to store information in a computer bank than on paper...tax returns, Social Security records, census forms, military records, perhaps criminal records, security clearance files, school transcripts...bank statements, credit ratings, job records—would in 2018 be stored on computers that could communicate with one another over a vast international network.”
- **J. C.R. Licklider (MIT, ARPA, BBN, etc.)**, “In the coming atomized society, the information the citizen gets will address his own specific concerns. ... “when everyone can select his own fund of information, the political problem of gathering an effective body of support behind a particular rational issue or candidate will become very different and very much more difficult.”

# Cambridge Analytica and the 2016 election

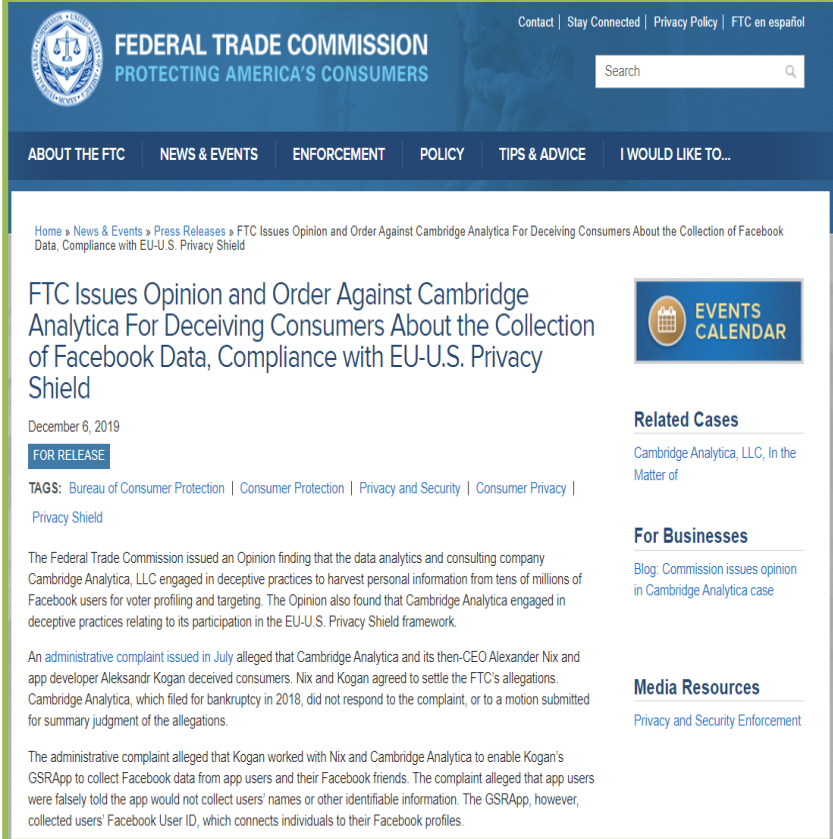
- Researcher Aleksandr Kogan (University of Cambridge, U.K.) designed a voluntary survey (THISISYOURDIGITALLIFE) for Facebook users
  - Told users it was for academic purposes
  - Data was collected on survey responders (270,000 Facebook users) *and their friends* (FB platform allowed this at the time)
  - Data saved in a private database, not deleted
  - Ultimately, data was collected on 87 million Facebook users
- Private database passed by Kogan to Cambridge Analytica who used it for psychographic targeting of voters.
- Cambridge Analytica engaged by Trump campaign in 2016 as part of their digital strategy
- Facebook asked Cambridge Analytica to destroy data in 2015, never checked to see that it had.
  - In 2014, Facebook cut off access to friends to developers

# How does psychographic targeting work?

- **Cambridge Analytica – The Power of Big Data and Psychographics**, Alexander Nix, Cambridge Analytica CEO (2016, 11 minutes)
- <https://www.youtube.com/watch?v=n8Dd5aVXLcc>

# What was illegal?

- **DATA COLLECTION FROM USERS – NO:** Facebook’s ability to collect and share user data was covered under its terms and conditions
- **DATA SHARING WITH PRIVATE ENTITY – AGAINST POLICY:** Kogan breached Facebook’s terms of service by giving the data to Cambridge Analytica.
- **FOREIGN ELECTION TAMPERING – MAYBE:** If any British Cambridge Analytica employees without a green card worked on U.S. campaigns, it violates U.S. election law.
- **FTC VIOLATIONS -- YES:** FTC found that Cambridge Analytica deceived consumers and did not comply with the FTC Act
- **VIOLATION OF UK LAW -- YES:** Nix caught on camera offering to bribe and blackmail public officials around the world.



The screenshot shows the Federal Trade Commission (FTC) website. At the top, the FTC logo and the text "FEDERAL TRADE COMMISSION PROTECTING AMERICA'S CONSUMERS" are visible. A search bar is located in the top right corner. Below the header, there is a navigation menu with links for "ABOUT THE FTC", "NEWS & EVENTS", "ENFORCEMENT", "POLICY", "TIPS & ADVICE", and "I WOULD LIKE TO...". The main content area features a press release titled "FTC Issues Opinion and Order Against Cambridge Analytica For Deceiving Consumers About the Collection of Facebook Data, Compliance with EU-U.S. Privacy Shield". The date is "December 6, 2019". There is a "FOR RELEASE" button. The "TAGS" section includes "Bureau of Consumer Protection", "Consumer Protection", "Privacy and Security", and "Consumer Privacy | Privacy Shield". The main text of the press release states: "The Federal Trade Commission issued an Opinion finding that the data analytics and consulting company Cambridge Analytica, LLC engaged in deceptive practices to harvest personal information from tens of millions of Facebook users for voter profiling and targeting. The Opinion also found that Cambridge Analytica engaged in deceptive practices relating to its participation in the EU-U.S. Privacy Shield framework." Below this, there is a paragraph about an administrative complaint issued in July, and another paragraph about the GSRApp. On the right side, there is an "EVENTS CALENDAR" button, a "Related Cases" section with a link to "Cambridge Analytica, LLC, In the Matter of", a "For Businesses" section with a link to "Blog: Commission issues opinion in Cambridge Analytica case", and a "Media Resources" section with a link to "Privacy and Security Enforcement".

# Questions for discussion

- Is psychographic targeting unethical?
- How and when should psychographic targeting be regulated?
- Does it make sense to differentiate how psychographic targeting is used in elections vs. in commerce?
- What influences the way you vote?
- If you could create a law or policy to improve things wrt elections, what would it be?

# Lecture References

- **If / Then: How the Simulmatics Corporation invented the future**, Jill Lepore
- **Cambridge Analytica**, Wikipedia, [https://en.wikipedia.org/wiki/Cambridge\\_Analytica#:~:text=The%20company%20closed%20operations%20in,although%20related%20firms%20still%20exist.&text=The%20firm%20maintained%20offices%20in,US%20political%20races%20in%202014.](https://en.wikipedia.org/wiki/Cambridge_Analytica#:~:text=The%20company%20closed%20operations%20in,although%20related%20firms%20still%20exist.&text=The%20firm%20maintained%20offices%20in,US%20political%20races%20in%202014.)
- **Facebook's Cambridge Analytica data scandal, explained**, The Verge, <https://www.youtube.com/watch?v=VDR8qGmyEQg>
- **What is the Cambridge Analytica scandal?**, The Guardian, <https://www.youtube.com/watch?v=Q91nvbJSmS4>
- **"The Cambridge Analytica Scandal, in Three Paragraphs"**, The Atlantic, [https://www.theatlantic.com/technology/archive/2018/03/the-cambridge-analytica-scandal-in-three-paragraphs/556046/?gclid=CjwKCAjw2dD7BRASEiwAWCtCby-pP0pa69d\\_5tOBHQoI2\\_5MukyXOXMont2cATZqvpmv8I\\_6n0802xoCaTwQAvD\\_BwE](https://www.theatlantic.com/technology/archive/2018/03/the-cambridge-analytica-scandal-in-three-paragraphs/556046/?gclid=CjwKCAjw2dD7BRASEiwAWCtCby-pP0pa69d_5tOBHQoI2_5MukyXOXMont2cATZqvpmv8I_6n0802xoCaTwQAvD_BwE)
- **"FTC Issues Opinion and Order Against Cambridge Analytica for Deceiving Consumers About the Collection of Facebook Data, Compliance with EU-US Privacy Shield"**, FTC, <https://www.ftc.gov/news-events/press-releases/2019/12/ftc-issues-opinion-order-against-cambridge-analytica-deceiving>

# Presentations



# Upcoming Presentations

## March 8

- **“Election forecast models are worth more attention than polls”**, Bloomberg Opinion, <https://www.bloomberg.com/opinion/articles/2020-11-22/election-forecast-models-have-more-potential-than-simple-polling> (Chris P.)
- **“Which 2020 election polls were most – and least – accurate?”**, Washington Post, <https://www.washingtonpost.com/politics/2020/11/25/which-2020-election-polls-were-most-least-accurate/> (Isaac L.)

## March 15

- **“Hunting for a giant black hole, astronomers found a nest of darkness,”** New York Times, <https://www.nytimes.com/2021/02/26/science/astronomy-black-hole-ngc6397.html> (Greg S.)
- **“NASA’s Webb telescope will be the world’s premier space science observatory – Here’s what those those powerful capabilities mean for astronomy,”** SciTechDaily, <https://scitechdaily.com/nasas-webb-telescope-will-be-the-worlds-premier-space-science-observatory-heres-what-those-powerful-capabilities-mean-for-astronomy/> (Angelina M.)



## Need Volunteers – Presentations for March 18

- **“Why so many data science projects fail to deliver”**, MIT Sloan Management Review, <https://sloanreview.mit.edu/article/why-so-many-data-science-projects-fail-to-deliver/?og=Home+Editors+Picks> (Sola S.)
- **“Using big data to measure environmental inclusivity in cities,”** EOS, <https://eos.org/articles/using-big-data-to-measure-environmental-inclusivity-in-cities> (Nate S.)

# Presentations for Today

## March 4

- **“Estonia leads the world in making digital voting a reality”**, Financial Times, <https://www.ft.com/content/b4425338-6207-49a0-bbfb-6ae5460fc1c1>
- **“Experts issue warning about electronic voting; blockchain-based systems are not ready for prime time”**, CPO Magazine, <https://www.cpomagazine.com/cyber-security/mit-security-experts-issue-warning-about-electronic-voting-blockchain-based-systems-are-not-ready-for-prime-time/>