

# What Cambridge Analytica did

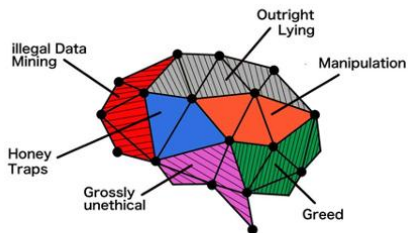
...and why it may matter

Roger Boyle, FBCS, FHEA, CEng, CITP

Awaken Productions/Cwmni Ennyn

October 22, 2018





Cambridge  
Analytica



[forbes.com/cartoons](https://forbes.com/cartoons)





**G**

**Cathy Newman**  
**On Jordan Peterson, trolls & Max Mosley**

→ G2

**The Guardian**

Monday  
19 March 2018  
Issue No 53,360  
www.theguardian.com  
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**Pressure grows on Facebook and data firm over mass breach of personal files**



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# British data firm offered £1m bribe to turn election

● Cambridge Analytica owner entrapped politician ● Suspended chief executive wrote racist email

Billie Marshall Investigations Reporter

## Juncker faces criticism for 'nauseating' Putin letter

Bruno Waterfield Brussels  
Sam Coates, Francis Elliott

Jean-Claude Juncker threatened to



‘The basic story **as received** is as follows:

*A shady UK data analytics company, with the help of a 24 year old tech genius developed an innovative technique to hack Facebook and steal 50 million user profiles. Then they used this data to help the Trump and Brexit campaigns psychologically manipulate voters through targeted ads. The result was Vote Leave ‘won’ the UK’s Brexit referendum and Trump was elected president in the US.*



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*A shady UK data analytics company, with the help of a 24 year old tech genius developed an innovative technique to hack Facebook and steal 50 million user profiles. Then they used this data to help the Trump and Brexit campaigns psychologically manipulate voters through targeted ads. The result was Vote Leave 'won' the UK's Brexit referendum and Trump was elected president in the US.*

Unfortunately, almost everything in the above summary is false or misleading.'

# What happened

Abbreviated!

- 1 Aleksandr Kogan, a Cambridge academic, performed a 'Big data' study using Facebook: users opted in some information.
- 2 He used a Facebook feature/loophole to magnify the size of his data set to users who had not opted in (consented).  
Note: These data were scrapes of profiles, *not* internal FB data which were never accessed.
- 3 Via a spin-out company he sold these data to Cambridge Analytica. Kogan and CA differ on whose bright idea this was.

# Aleksandr Kogan ...



University of Cambridge

# What happened

- 4 Cambridge Analytica (in which Steve Bannon has business interest) had some involvement in the Republican Presidential campaign(s) of 2016.
- 5 Carole Cadwalladr (The Observer) did some digging. A Cambridge Analytica leak (Christopher Wylie) {*told her, led her to believe*} that the data supplied by Kogan permitted CA to swing the election.

# Carol Cadwalladr, Christopher Wylie ...



Twitter, UK Business Insider

# What happened

- 6 Cambridge Analytica turned out to be 'rather obnoxious and unethical'. The boss Alexander Nix was recorded making some very far fetched claims indeed. He resigned.

# Aleksander Nix ...



Washington Post

# What happened

- 7 Trump won by a small margin. It is not possible to say how many votes (if any) CA's activities changed. It is highly likely that other factors (e.g., choice of Democrat candidate) swung more. Few informed observers believe CA 'won' the election for Trump.
- 8 There is no evidence that CA were involved in the Brexit referendum.



'The truth is mundane but depressing.

Both the Brexit referendum and the US 2016 election were (marginally) won by right wing populist movements doing what such movements have always done: whipping up xenophobia, offering simplistic solutions to complex problems, and claiming that they will destroy the corrupt system that has been holding the people down.'

# So what? Should we care? (I)

CA let it be believed that they were using *psychographics* to *micro-target* voters. They probably weren't.

But we would be reckless to assume CA are the only company in this game. Others are clearly better as they haven't been caught – perhaps these others have pushed at the open door that Kogan used?

# So what? Should we care? (II)

Kogan was not a maverick - serious research groups world wide are in the same game.

Kogan had already been part of an internal departmental row over jeopardising serious academic work.

## Psychological targeting as an effective approach to digital mass persuasion

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Edited by Susan T. Fiske, Princeton University, Princeton, NJ, and approved October 17, 2017 (received for review June 17, 2017)

People are exposed to persuasive communication across many different contexts: Governments, companies, and political parties use persuasive appeals to encourage people to eat healthier, purchase a particular product, or vote for a specific candidate. Laboratory studies show that such persuasive appeals are more effective in influencing behavior when they are tailored to individuals' unique psychological characteristics. However, the investigation of large-scale psychological persuasion in the real world has been hindered by the questionnaire-based nature of psychological assessment. Recent research, however, shows that people's psychological characteristics can be accurately predicted from their digital footprints, such as their Facebook Likes or Tweets. Capitalizing on this form of psychological assessment from digital footprints, we test the effects of psychological persuasion on people's actual behavior in an ecologically valid setting. In three field experiments that reached over 3.5 million individuals with psychologically tailored advertising, we find that matching the content of persuasive appeals to individuals' psychological characteristics significantly altered their behavior as measured by clicks and purchases. Persuasive appeals that were matched to people's extraversion or openness-to-experience level resulted in up to 40% more clicks and up to 50% more purchases than their mismatching or unpersonalized counterparts. Our findings suggest that the application of psychological targeting makes it possible to influence the behavior of large groups of people by tailoring persuasive appeals to the psychological needs of the target audiences. We discuss both the potential benefits of this method for helping individuals make better decisions and the potential pitfalls related to manipulation and privacy.

from that displayed in the laboratory (7). Consequently, it is questionable whether—and to what extent—these findings can be generalized to the application of psychological persuasion in real-world mass persuasion (see ref. 8 for initial evidence).

A likely explanation for the lack of ecologically valid research in the context of psychological persuasion is the questionnaire-based nature of psychological assessment. Whereas researchers can ask participants to complete a psychological questionnaire in the laboratory, it is unrealistic to expect millions of people to do so before sending them persuasive messages online. Recent research in the field of computational social sciences (9), however, suggests that people's psychological profiles can be accurately predicted from the digital footprints they leave with every step they take online (10). For example, people's personality profiles have been predicted from personal websites (11), blogs (12), Twitter messages (13), Facebook profiles (10, 14–16), and Instagram pictures (17). This form of *psychological assessment from digital footprints* makes it paramount to establish the extent to which behaviors of large groups of people can be influenced through the application of psychological mass persuasion—both in their own interest (e.g., by persuading them to eat healthier) and against their best interest (e.g., by persuading them to gamble). We begin this endeavor in a domain that is relatively uncontroversial from an ethical point of view: consumer products.

### Significance

PNAS 114(48):201710966 November 2017

# David Stillwell

'Colleague' of Kogan



University of Cambridge



Twitter

# So what? Should we care? (III)

'Surveillance capitalism' is a term coined 5(?) years ago by Harvard Professor Shoshana Zuboff.

# Shoshana Zuboff



BCC



# Surveillance Capitalism

In the old days (199x), the Internet was perceived as a serious threat to established capitalism. Remember Napster?

# Surveillance Capitalism

In the old days (199x), the Internet was perceived as a serious threat to established capitalism. Remember Napster?

We now live in a world where [until recently] Uber track you after leaving your cab, and digital billboards in London are monitoring your facial expression.

# Surveillance Capitalism

after Zuboff

- 1 The drive toward more and more data extraction and analysis
- 2 The development of new contractual forms using computer-monitoring and automation
- 3 The desire to personalize and customize the services offered to users of digital platforms
- 4 The use of the technological infrastructure to carry out continual experiments on its users and consumers.

# Big other: surveillance capitalism and the prospects of an information civilization

J. Inf Tech. 30(1), 75-89, 2015

'It is constituted by unexpected and often illegible mechanisms of extraction, commodification, and control that effectively exile persons from their own behavior while producing new markets of behavioral prediction and modification.

Surveillance capitalism challenges democratic norms and departs in key ways from the centuries-long evolution of market capitalism.'