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Putting the Strategy Back into Strategic Communications  
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Strategic Communications, Boko Haram, and Counter-Insurgency  
Fake News, Fake Wars, Fake Worlds  
Living Post-Truth Lives ... But What Comes After?  
'We Have Met The Enemy And He Is Us'

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# FAKE NEWS, FAKE WARS, FAKE WORLDS

## A review essay by Charles Kriel

*Prototype Politics: Technology-Intensive Campaigning and the Data of Democracy*  
Daniel Kreiss. Oxford University Press, 2016

*HyperNormalisation*  
Documentary film by Adam Curtis. BBC, 2016

*Emotions and Personality in Personalized Services: Models, Evaluation and Applications*  
Marko Tkalčić et al (eds). Springer, 2016

*Computational Propaganda Worldwide*, Working Paper No. 2017/11  
Samuel C. Wooley and Phillip N. Howard. Oxford Internet Institute website, 2017

**Keywords:** *fake news, Cambridge Analytica, social media, electoral analysis, psychographic influence, Brexit, strategic communication, strategic communications*

### About the Author

Dr Charles Kriel is the author of several books. He is Programme Director for Countering Violent Extremism at the UK's Corsham Institute, and hosts the podcast *Ci – Countering Violent Extremism*.<sup>1</sup>

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<sup>1</sup> Available at <http://CVE.Ci>.

Do influence campaigns based on data-driven psychological profiling work? Both Cambridge Analytica and a significant part of the campaign apparatus for the UK to leave the EU appeared to think so.

That is, until they didn't.

Leave.EU, 20 November 2015:

*Cambridge Analytica are world leaders in target voter messaging. They will be helping us map the British electorate and what they believe in, enabling us to better engage with voters.*<sup>2</sup>

Alexander Nix, Cambridge Analytica CEO, Campaign, 10 February 2016:

*Recently, Cambridge Analytica has teamed up with Leave.EU ... to help them better understand and communicate with UK voters. We have already helped supercharge Leave.EU's social media campaign.*<sup>3</sup>

Alexander Nix, Bloomberg Businessweek, 8 February 2017:

*We did undertake some work with Leave.eu, but it's been significantly overreported.*<sup>4</sup>

The Guardian, 25 February 2017:

*The communications director of Leave.eu, Andy Wigmore, told the Observer that [...] he introduced [Nigel] Farage and Leave.eu to Cambridge Analytica: 'They were happy to help. Because Nigel is a good friend of the Mercers.'*<sup>5</sup>

Bloomberg, 23 March 2017:

*A few days later, Cambridge issued a statement denying any involvement in the campaign. [Richard] Tice, [co-founder of Leave.EU] reached again by phone, stood by his statements that the firm worked for Leave.EU and said of Cambridge Analytica's denial: 'Just put it down to politics.'*<sup>6</sup>

2 Leave.eu, 'The Science Behind Our Strategy', 20 November 2015, <https://web.archive.org/web/20170129224011/http://leave.eu/en/news/2015-11-20/the-science-behind-our-strategy> (accessed 13 October 2017).

3 Nix, A., 'How big data got the better of Donald Trump', *campaignlive.co.uk*, 10 February 2016, <http://www.campaignlive.co.uk/article/big-data-better-donald-trump/1383025> (accessed 13 October 2017).

4 Baker, S., Kocieniewski, D. & Smith, M., 'Trump Data Gurus Leave Long Trail of Subterfuge, Dubious Dealing', *Bloomberg*, 23 March 2017, <https://www.bloomberg.com/news/articles/2017-03-23/trump-data-gurus-leave-long-trail-of-subterfuge-dubious-dealing> (accessed 13 October 2017).

5 Cadwalladr, C., 'Revealed: how US billionaire helped to back Brexit', *Observer*, 26 February 2017, <https://www.theguardian.com/politics/2017/feb/26/us-billionaire-mercer-helped-back-brexit> (accessed 13 October 2017).

6 Baker, 'Trump Data Gurus'.

Three months later, on 27 June 2017, Nix told BBC Newsnight:  
*We had absolutely no involvement in the Leave campaign. We did not do any paid or unpaid work for Brexit.*<sup>7</sup>

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Can the combination of big data social media profiling, hyper-customised content, and Facebook ‘dark ad’ buys be used to sway opinion? Or are these claims little more than big-data mumbo jumbo, spun like some seductive web designed to draw in big political budgets and security services contracts?

This matters in strategic communications, as a caution, as well as an opportunity. Any significant claims to advances in the technology of propaganda potentially shift methodologies and efficacy on all sides. And as Paul Virilio would remind us, invent the technology and you invent the accident of that technology. Cambridge Analytica’s story bears this out; at this writing, they have now been compelled to submit a cache of documents to the US House Permanent Select Committee on Intelligence.<sup>8</sup>

New approaches to influence campaigning can cut both ways.

As shifting stories go, the claims and denials surrounding Cambridge Analytica’s involvement with Leave.EU operate at a Trumpian level.

The Nigel Farage-endorsed campaign for the UK to leave the European Union, Leave.EU, first launched in July 2015 and by November claimed Cambridge Analytica would help them both map British voters according to their beliefs, and drive voter engagement.

As detailed in BBC Newsnight’s episode *Did Cambridge Analytica play a role in the EU referendum?*, Cambridge Analytica is a once-obscure data analytics company whose Vice President,<sup>9</sup> Stephen K. Bannon, went on to become White House Chief Strategist for Donald Trump. Largely owned by American right-wing activist billionaire Robert Mercer, Cambridge Analytica (CA) specialises in influence and election campaigns,

7 BBC News, ‘Did Cambridge Analytica play a role in the EU referendum?’, 27 June 2017, <http://www.bbc.co.uk/news/av/uk-40423629/did-cambridge-analytica-play-a-role-in-the-eu-referendum> (accessed 13 October 2017).

8 Woodruff, Betsy and Spencer Ackerman, ‘Russia Probe Now Investigating Cambridge Analytica, Trump’s “Psychographic” Data Gurus’, *Daily Beast*, 11 October 2017, <https://www.thedailybeast.com/russia-probe-now-investigating-cambridge-analytica-trumps-psychographic-data-gurus> (accessed 13 October 2017).

9 Confessore, Nicholas and Danny Hakim, ‘Data Firm Says “Secret Sauce” Aided Trump; Many Scoff’, *New York Times*, 6 March 2017, <https://www.nytimes.com/2017/03/06/us/politics/cambridge-analytica.html> (accessed 13 October 2017).

profiling potential voters through social media, and analysing their personalities before sending them micro-targeted Facebook ads in order to nudge them either to turn out to vote—or often more crucially—to not.

This process starts with understanding the individual voter. In a keynote speech at the 2017 Online Marketing Rockstars conference, CEO Alexander Nix claimed that with ten Facebook Likes Cambridge Analytica can predict an individual's behaviour better than their work colleague might. They only need 70 to make behavioural predictions better than a friend; 150 to understand a voter better than a parent; and with 300 Likes, his organisation can predict a person's actions, thoughts, and feelings better than their spouse.<sup>10</sup>

Says Nix, 'We have four or five-thousand data points on every adult in the United States.' Or as his company puts it, the entire voting population. That is roughly 5,000 discrete pieces of information—anything from a Facebook Like / Love / Haha / Wow / Sad / Angry response to a post and its natural-language-analysed subject, through to publicly available demographic data—on 220,000,000 Americans.

Psychographics companies like Cambridge Analytica then use this data to steer voters to highly customised web pages to persuade their thinking, stir them to action, or stop them in their tracks, as was done in the Trump campaign. In several videos, from Nix's 2016 Concordia Summit presentation<sup>11</sup> through his 2017 Online Marketing Rockstars keynote Nix has been unambiguous in his claims that Cambridge Analytica played a significant role in the Trump presidential campaign, contributing to its success.

On their website, political pollster and Fox News commentator Frank Luntz says, 'There are no longer any experts except Cambridge Analytica.'<sup>12</sup> Sporting the 2016 logos of the Trump, Cruz, and Carson campaigns, as well as those of the John Bolton and Make America Number 1 (anti-Hillary) Political Action Committees, Cambridge Analytica touts their credentials in political campaigning across research, data integration, audience segmentation, targeted advertising, and evaluation.

They claim to have run a reputation management campaign for a candidate in Columbia, where nearly all politicians are viewed as corrupt. Discouraging their candidate from declaring innocence to the public, Cambridge Analytica instead engaged credible voices to deliver public testimonials over their client's integrity.<sup>13</sup>

10 Nix, Alexander, 'Keynote', Online Marketing Rockstars, 2017, *YouTube*, 10 March 2017, <https://www.youtube.com/watch?v=6bG5ps5KdDo&t> (accessed 13 October 2017).

11 Nix, Alexander, 'The Power of Big Data and Psychographics', Concordia Summit, 2016, *YouTube*, 27 September 2016, <https://www.youtube.com/watch?v=n8Dd5aVXLCc> (accessed 13 October 2017).

12 CA Political, Homepage, <https://ca-political.com/> (accessed 13 October 2017).

13 Ibid., 'Case Study Colombia', <https://ca-political.com/casestudies/casestudycolombia> (accessed 13 October 2017).

In India, Cambridge Analytica conducted in-depth electoral analysis, identifying key swing voters. Once complete, they created a communications hierarchy to increase supporter motivation, winning an impressive 90% of the election's targeted seats.<sup>14</sup>

In Indonesia, Cambridge Analytica's claim is even more astonishing. Following the 1999 restoration of democracy, the company assembled a full-scale general election campaign built to appeal to 200 million voters in 40 languages. The company makes no declarations to victory, but claims to have 'played an important role in managing the robust feelings present in the populace'.<sup>15</sup>

The claims go on and on—suppressing violence in South Africa's first post-Apartheid election; conducting the largest political research campaign in the history of East Africa for the 2013 Kenyan presidential campaign; helping maintain Denzil Douglas as the longest serving Prime Minister in St. Kitts and Nevis' history; and building the world's largest electoral campaign operations centre in Thailand. The claims are consistently positive, and emphasise Cambridge Analytica's decisive role.

The same is not true when it comes to Brexit.

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The Internet Archive's Wayback Machine is an unforgiving documenter of the past, attempting to record *everything-that-ever-was-the-internet*. Politicians who on their websites hastily hagiographise their histories are often caught out by this keeper of the internet's memory. On 20 November 2015, as quoted by the Wayback Machine, Leave.EU's website said, 'Cambridge Analytica are world leaders in target voter messaging. They will be helping us map the British electorate and what they believe in, enabling us to better engage with voters. Most elections are fought using demographic and socio-economic data. Cambridge Analytica's psychographic methodology however is on another level of sophistication.'

The website no longer says anything close.

Writing the next year in *Campaign* magazine, Alexander Nix himself said, 'We have already helped supercharge Leave.EU's social media campaign by ensuring the right messages are getting to the right voters online, and the campaign's Facebook page is growing in support to the tune of about 3,000 people per day.' That was in October.

<sup>14</sup> Ibid., 'Case Study India', <https://ca-political.com/casestudies/casestudyindia> (accessed 13 October 2017).

<sup>15</sup> Ibid., 'Case Study Indonesia', <https://ca-political.com/casestudies/casestudyindonesia> (accessed 13 October 2017).

By November of the following year, his tone had begun to mellow, telling *Bloomberg Business Week*, ‘We did undertake some work with Leave.eu, but it’s been significantly overreported.’

By June 2017, Nix was in full denial, telling the BBC’s *Newsnight*, ‘We had absolutely no involvement in the Leave campaign. We did not do any paid or unpaid work for Brexit.’

What gives? Probably campaign finance law. In the same *Bloomberg* article, reporters Stephanie Baker, David Kocieniewski, and Michael Smith wrote, ‘[T]he story changed after the *Observer* reported on 26 February that Cambridge Analytica had provided free services to Leave.eu, and raised questions about whether the work was an in-kind donation that should have been reported. Under UK Electoral Commission rules, campaigners are required to report all donations over £7,500. The commission confirmed that Leave.eu didn’t report any donation from Cambridge Analytica.’

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The debate over Cambridge Analytica’s involvement in the Leave.EU campaign is disjointed, if well-documented. More surprising is the debate around their impact on the Trump Campaign. Sue Halpern in the *New York Review of Books* writes that in the warm afterglow of Trump’s victory, Nix credited his firm with the win, while Brad Parscale, the campaign’s Digital Director, claimed it was he and Jared Kushner’s ‘overall digital strategy that took Trump over the top’.<sup>16</sup>

But all these claims, counter-claims, and denials obscure a deeper question at the heart of the matter: Does Cambridge Analytica’s methodology actually work?

Nix has supposedly said, ‘Persuading somebody to vote a certain way is really very similar to persuading 14- to 25-year-old boys in Indonesia to not join al-Qaeda.’<sup>17</sup> But can psychometrics do even that one small but important thing—persuade a young man to not commit public suicide?

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For an answer, it is worth looking not only at the specific reputation of Cambridge Analytica, but also the methodology of influence campaigning (aka computational propaganda), plus the sheer volume of global activity and its effectiveness in creating the desired outcomes of agencies, politicians, and governments around the world.

<sup>16</sup> Halpern, S., ‘How He Used Facebook to Win’, *New York Review of Books*, 8 June 2017, <http://www.nybooks.com/articles/2017/06/08/how-trump-used-facebook-to-win/> (accessed 13 October 2017).

<sup>17</sup> Mayer, J., ‘The Reclusive Hedge-Fund Tycoon Behind the Trump Presidency’, *New Yorker*, 27 March 2017, <https://www.newyorker.com/magazine/2017/03/27/the-reclusive-hedge-fund-tycoon-behind-the-trump-presidency> (accessed 13 October 2017).

On 19 June 2017, Robert Gorwa published a blog post announcing one of the most sweeping public studies of the use of social media for public opinion manipulation—*The Computational Propaganda Research Project* at the Oxford Internet Institute.<sup>18</sup> Housed at Oxford University, it is a series of case studies analysing ‘qualitative, quantitative, and computational evidence collected between 2015 and 2017 from Brazil, Canada, China, Germany, Poland, Taiwan, Russia, Ukraine, and the United States.’

Ukraine has become a kind of hot lab for social media manipulation, with both the West and Russia conducting Facebook and Twitter wars to influence the population. Far beyond the straightforward goal of electing ‘the most powerful man in the world’, these campaigns work to destabilise the other side’s societal narrative, with industrial scale operations operating out of Ukraine, and in nearby Poland. According to the Institute’s reports, in some places online public life is completely dominated by bots on social media.

Cambridge Analytica’s methodology employs the O.C.E.A.N. method of typology, a multi-tiered scale rating an individual’s personality based on five categories—Openness to experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. As documented in *Emotions and Personality in Personalized Services*,<sup>19</sup> the system dates back decades, building on less complex typological systems, but Cambridge Analytica often appears in the public imagination as the original instigators of psychographics, mostly due to the company’s close ties to high-profile campaigns, and the controversy surrounding their efficacy or lack thereof.

The company’s tendrils run deep beneath the ground of the West’s political landscape. Founded in 2013 as parent company SCL Group’s American operation, by 2014 Cambridge Analytica was servicing 44 Congressional, Senate, and state-level American midterm political campaigns. Stephen K. Bannon, recent White House Chief Strategist and current Executive Chairman of *Breitbart News*, served as Vice President of Cambridge Analytica’s board right up until the beginning of his White House tenure.<sup>20</sup>

But most significantly, Cambridge Analytica is 10%-owned by SCL Group and 90%-owned by Robert Mercer.<sup>21</sup> According to the *Washington Post*, Mercer is one of the most influential

18 Woolley, Samuel C. & Philip N. Howard, *Computational Propaganda Worldwide: Executive Summary*, Samuel Woolley and Philip N. Howard, Eds. Working Paper 2017/11. Oxford, UK: Project on Computational Propaganda, <http://comprop.oii.ox.ac.uk/wp-content/uploads/sites/89/2017/06/Comprop-Russia.pdf>

19 Tkalcic, Marko, Berardina De Carolis, Marco de Gemmis, Ante Odić, and Andrej Košir, *Emotions and personality in personalized services: Models, Evaluation and Applications* (Human–Computer Interaction Series), (Switzerland: Springer, 2016).

20 Confessore, ‘Data Firm Says’.

21 Woodruff, ‘Russia Probe Now Investigating’.

billionaires in politics.<sup>22</sup> Co-CEO of Renaissance Technologies, a hedge fund using artificial intelligence to manage at least \$65 billion in assets, Mercer also owns significant chunks of *Breitbart News*, SCL Group, the Government Accountability Institute, Reclaim New York, and Bannon's media production company, Glittering Steel LLC. Glittering Steel is famed for its anti-Clinton documentaries, 'Clinton Cash' being the most popular, receiving nearly 3.5 million views on YouTube,<sup>23</sup> and becoming the source of panel discussions on the political punditry circuit, from *ABC News This Week*<sup>24</sup> to *The O'Reilly Factor*.<sup>25</sup>

In 2016, Renaissance Technologies contributed more than \$33 million to US federal political campaigns. In addition, Mercer and his wife personally donated more than \$25 million to conservative candidates in the same period, making them the United States' seventh largest individual political donors, according to the Center for Responsive Politics, a non-partisan research charity who run [Opensecrets.org](http://Opensecrets.org).<sup>26</sup>

Mercer made his billions through Renaissance Technologies, but his first career lies closer to the heart of Cambridge Analytica's work. From 1972 to 1993, Mercer worked at IBM's Thomas J. Watson Research Center writing code to help computers understand humans. His most famous project: IBM's natural language analysis engine, Watson.

Understanding humans is at the essence of Cambridge Analytica's work, as well as that of parent company SCL Group—both sharing many of their collective 200 employees.<sup>27</sup>

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But while Watson's reputation is well-established, questions have been raised over Cambridge Analytica's ability to deliver the goods, with many commentators and former clients calling 'snake oil' on their work, if not their methodology.

In a 6 March 2017 *New York Times* report, Nicholas Confessore and Danny Hakim write that 'a dozen Republican consultants and former Trump campaign aides, along

22 Phillips, A., 'The 10 most influential billionaires in politics', *The Washington Post*, 21 September 2015: [https://www.washingtonpost.com/news/the-fix/wp/2015/09/21/the-10-most-influential-billionaires-in-politics/?utm\\_term=.ce5b547a981e](https://www.washingtonpost.com/news/the-fix/wp/2015/09/21/the-10-most-influential-billionaires-in-politics/?utm_term=.ce5b547a981e) (Accessed 13 October 2017).

23 *Clinton Cash Official Documentary Movie*, YouTube, 23 July 2016, [https://www.youtube.com/watch?v=7LYRUOd\\_QoM&t](https://www.youtube.com/watch?v=7LYRUOd_QoM&t) (accessed 13 October 2017).

24 ABC News, 'Clinton Cash' Fallout', YouTube, 26 April 2015, <https://www.youtube.com/watch?v=0-0mzeBgiMA> (accessed 13 October 2017).

25 Government Accountability Institute, 'Bill O'Reilly Discusses CLINTON CASH by Peter Schweizer', YouTube, 21 April 2015, <https://www.youtube.com/watch?v=0g5jBBdFAB0> (accessed 13 October 2017).

26 The Center for Responsive Politics, 'Top Individual Contributors: All Federal Contributions', *OpenSecrets.org*. Based on data released by the FEC on 05/16/17, <https://www.opensecrets.org/overview/topindivs.php> (accessed 11 October 2017).

27 Confessore, 'Data Firm Says'.

with current and former Cambridge employees, say the company's ability to exploit personality profiles...is exaggerated'.<sup>28</sup>

'They've got a lot of really smart people, but it's not as easy as it looks to transition from being excellent at one thing and bringing it into politics', says Brent Seaborn, MD of a competing firm.<sup>29</sup>

Rick Tyler, a former aide of Cambridge Analytica client Ted Cruz, said, 'When they were hired, from the outset it didn't strike me that they had a wide breadth of experience in the American political landscape.'<sup>30</sup> In one test identifying Oklahoma voters who preferred Cruz, more than half actually liked other candidates. Another consultant involved in the campaign says Mercer and Bannon used bullying tactics when the campaign disputed a \$2.5 million invoice. The pair claimed Cambridge Analytica was the only thing keeping Cruz's candidacy alive.

Several former Trump campaign aides say the company's data and models were less effective at getting voters to the polls than the existing Republican National Committee system, and after Nix's people placed a \$5 million Trump ad buy with many spots airing in Washington, DC, a reliably solid Democratic stronghold, their role in television scheduling was terminated.

Confessore and Hakim also point to a 2017 brochure mail-out to Cambridge Analytica clients touting their 'pivotal role' in electing Trump, calling it their biggest US political success, while simultaneously their Head of Product, Matt Oczkowski, told a conference, 'I don't want to break your heart; we actually didn't do any psychographics with the Trump campaign.'<sup>31</sup>

But these accusations are levelled mostly against Cambridge Analytica rather than their methodology. And whether the company was simply inexperienced with the American electorate or prone to gross exaggeration takes nothing away from the central question of the efficacy of their methods.

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According to their own literature, and several of Nix's presentations, the Cambridge Analytica 'method' is based on three pillars: Behavioural Science, Data Analytics, and Addressable Ad Technology.

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28 Ibid.

29 Ibid.

30 Ibid.

31 Ibid.

Cambridge Analytica base their behavioural approaches on the O.C.E.A.N. trait-profiling system, where trait modelling is used to determine an individual's personality. Conceptually similar to the Myers–Briggs Type Indicator, Cambridge Analytica's flavour of typological testing instead bases personality profiles on Facebook information, publicly-available demographic data, and responses to online Facebook questionnaires like those published through the MyPersonality Facebook app.<sup>32</sup>

This form of data analytics—Demographics + Psychographics + Personality Data—relies on the application of O.C.E.A.N. to a target audience's digital footprints. Nix and company then use addressable ad technology to send the right people to the right ads through cookie matching, mail shots, set-top box viewing data matching, and highly targeted, non-public, paid Facebook posts often referred to as 'dark ads'.

Hannes Grassegger and Mikael Krogerus wrote in *Das Magazin*,<sup>33</sup> 'On the day of the third presidential debate between Trump and Clinton, Trump's team tested 175,000 different ad variations for his arguments, in order to find the right versions above all via Facebook. The messages differed for the most part only in microscopic details, in order to target the recipients in the optimal psychological way: different headings, colors, captions, with a photo or video.'<sup>34</sup>

'Pretty much every message that Trump put out was data-driven', Nix told *Vice's Motherboard*. 'We can address villages or apartment blocks in a targeted way. Even individuals.'

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Fundamental to not only Robert Mercer's fortunes, but also to the modern field of trait profiling, is Artificial Intelligence. Adam Curtis' 2016 BBC documentary, *HyperNormalisation*, is a sprawling document of contemporary control and chaos, drawing lines of connection between such events as a failed New York City bond issue in 1975 and Hafez al-Assad's support of suicide bombing in Beirut in 1985, and more recent developments such as the use of artificial intelligence in monitoring public sentiment, the ascendancy of Donald Trump, and the invention of non-linear warfare.

<sup>32</sup> <https://www.facebook.com/My-Personality-120057564782166/> (accessed 13 October 2017).

<sup>33</sup> Grassegger, H. and M. Krogerus, 'Ich habe nur gezeigt, dass es die Bombe gibt' *Das Magazin*, 3 December 2016, <https://www.dasmagazin.ch/2016/12/03/ich-habe-nur-gezeigt-dass-es-die-bombe-gibt/> (accessed 13 October 2017).

<sup>34</sup> Grassegger, H. and M. Krogerus, 'The Data That Turned the World Upside Down', *Motherboard*, 28 January 2107, [https://motherboard.vice.com/en\\_us/article/mg9vvn/how-our-likes-helped-trump-win](https://motherboard.vice.com/en_us/article/mg9vvn/how-our-likes-helped-trump-win) (accessed 13 October 2017).

Curtis tells the story of Larry Fink, who arrived on Wall Street in 1976 and began trading mortgage-backed securities for First Boston, building a reputation and fortune for the bank that peaked in 1986 when Fink structured the \$4.6 billion securitization of the GMAC auto loan. According to *Vanity Fair*, 'he became the youngest managing director in First Boston's history and, at 31, the youngest member of its management committee. Many believed that he would eventually run the firm'.<sup>35</sup>

Then disaster struck. Fink had predicted interest rates would rise—his traders took a huge position based on this instinct—but instead they fell. In the second quarter of the same year, Fink's department lost \$100 million.

Fink told writer Suzanna Andrews that almost overnight he went 'from a star to a jerk'; people stopped talking to him in the hallways.

'We built this giant machine, and it was making a lot of money—until it didn't', Fink told Andrews. 'We didn't know why we were making so much money. We didn't have the risk tools to understand that risk.'

Fink vowed to never again be in a position where he didn't understand the risks he was taking. Along with several partners, Fink transferred his future to Blackrock, a multinational investment management corporation, where he set up a unique computer farm designed to search the markets for risk. Five thousand computers ran 24 hours per day—more than 200 million calculations per week—A / B testing the future, looking for things that could go wrong in the future based on what had occurred in the past. The system was called Aladdin, and according to Curtis, it now controls 7% of the world's wealth—nearly \$75 trillion in investments.

These kinds of artificial intelligence agents were soon being used to predict the behaviour of individuals. Security agencies began collecting data on millions of people, hoping to predict everything from the free market to the movement of refugees. According to Curtis, what arose was a system designed to keep the world stable in the face of infinite complexity.

But predicting the behaviour of individuals proved far more complex than forecasting markets. What was needed was a system to first comprehend the individual, and through understanding their personality, to both divine and direct their behaviour.

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35 Andrews, S. and N. Parry, 'Larry Fink's \$12 Trillion Shadow', *Vanity Fair*, 2 March 2010, <https://www.vanityfair.com/news/2010/04/fink-201004> (accessed 13 October 2017).

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*Emotions and Personality in Personalized Services: Models, Evaluation and Applications* focuses on online services. If this multi-authored, specialist-targeted volume contained a central research question, it might read: how can we learn enough of the personality of an individual that we might persuade their behaviour through providing a more targeted service. And foundational to the various methodologies outlined throughout the book is *trait profiling*, of which O.C.E.A.N. is the most widely accepted model.

The chapter ‘Models of Personality’ reminds us the field was first imagined by Hippocrates, and that Galen of Pergamum’s *The Four Humors* was the foundational trait theory of personality. Modern trait theory is rooted in the occasionally questionable and often over enthusiastically typological work of practitioners like Sir Francis Galton (who also attempted to create a beauty map of the British Isles, rating the women he encountered on his travels: ‘I found London to rank highest for beauty: Aberdeen lowest’, he wrote).<sup>36</sup>

The Myers-Briggs (MBTI) method is a more modern example. Still venerated by advertising interns and small-town marketing juniors, MBTI has been broadly criticised for its oversimplification of the complex nature of individual differences, and its questionable reliability. But the foundational practice of the contemporary marketer, particularly those working with social media profiling, is the Big Five (or Five Factor) system, O.C.E.A.N.

The balance of these five factors—Openness to experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism—in an individual’s personality are gleaned in the contemporary world through analysis of the subject’s digital footprint. In the chapter ‘Acquisition of Personality’, Finnerty, Lepri, and Pianesi make it clear that in ‘the last 50 years the Big Five model has become the standard in psychology’, and that the future is digital.

‘Digital products and services offer an unprecedented repository of easily accessible and yet highly valid records of human behaviour. Recent studies show that personality assessment based on such digital footprints can rival those based on well-established questionnaire measures. Potential sources of footprints include personal websites, Facebook Likes, Facebook Status updates, or Twitter messages.’<sup>37</sup>

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36 The Galton Institute, ‘The Measurement of Man’, 2017, <http://www.galtoninstitute.org.uk/sir-francis-galton/psychology-statistics-criminology/> (accessed 13 October 2017).

37 Finnerty, A.N., Bruno Lepri, and Fabio Pianesi, ‘Acquisition of Personality’, in *Emotions and Personality in Personalised Services*, edited by Tkalčič et.al., Springer, 2016, pp. 81-99.

Frequently gleaned from questionnaires, they claim the O.C.E.A.N. profile so accurate that ‘having people close to you, such as family members and friends, rating the questionnaire items was found to have the same results as self-reported values’.<sup>38</sup>

The chapter, ‘Sentiment Analysis in Social Streams’<sup>39</sup> takes a more granular approach, focussing on social media feeds. Here, user-generated content is the primary source of personality profiling, tapping connections, discussions, the sharing of content, language analysis, URLs, video, images, and the like. Most arresting in this analysis is the simplicity of determining political ideology. The writers declare politics to be a ‘binary classification problem’. Up / down. Left / right. Polarity detection seeks a straightforward positive / negative sentiment result, and even where an entire personality profile has not been discerned, something as simple as political support can be perceived, given that the question is asked in the correct way.

But the system is not without potential pitfalls. After all, there is a world of difference between ‘Do you feel positive about Ted Cruz?’ and ‘In a field of a dozen candidates, would you support Ted Cruz?’

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Once personalities have been profiled, the next step in the method is to algorithmically generate content at scale, and then direct each individual voter to the page most likely to yield results. Back to that *Das Magazin* article.<sup>40</sup>

According to Grassegger and Krogerus, Cambridge Analytica divided America into 32 personality types for the Trump campaign, and focussed on seventeen states (and possibly to their regret, Washington, DC). The company’s psychometric findings told the Trump team which messages were working and where, not at the conceptual level, but as we’ve seen, at the ‘chunk’ level of headings, colours, captions, and photos. One-hundred-seventy-five-thousand algorithmically generated variations were designed not only to get out the vote, but to suppress it as well. And dark ads drove the direction.

Facebook dark ads are highly targeted adverts that only the targeted user can see. Although Facebook targeting can go notoriously wrong—Facebook thinks I like first person shooter games and musical theatre, for example—at scale, it can be an effective influencer.

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<sup>38</sup> Ibid.

<sup>39</sup> Saif, Hassan, Javier Ortega, Miriam Fernández, Ivan Cantador, pp. 119-140.

<sup>40</sup> Grassegger, ‘The Data That Turned’.

In Miami's Little Haiti, the Trump campaign spread the word about the Clinton Foundation's failures following the Haitian earthquake. Staffers also created a South Park-style animation pushing the message that 'Hillary Thinks African Americans are Super Predators'. According to a pre-election-day *Bloomberg Businessweek* story, 'The animation will be delivered to certain African American voters through Facebook 'dark posts'—nonpublic posts whose viewership the campaign controls so that, as Parscale puts it, 'only the people we want to see it, see it'. The aim is to depress Clinton's vote total.<sup>41</sup>

In door-to-door operations, Trump canvassers were provided with an app that would help them filter their doorstops down to only voters receptive to the Trump message. Canvassers were armed with conversation guidelines geared for the resident's personality type. They then provided feedback through the app after each doorstop, which was then aggregated into data that showed up on Trump campaign dashboards, influencing next steps.

A Trump campaign official went on to say, 'We know because we've modelled this. It will dramatically affect her ability to turn these people out.'<sup>42</sup>

But it is not only canvassing and campaign ad buys that are narrowing the news to which users are exposed. Social media algorithms also famously create bubbles of information—echo chambers—that, as Curtis points out, serve to benefit both politicians and big business. Social media users click and like and dwell on that which the algorithm sends their way, all the while yielding more personal information to marketing agencies, and more views and click-through to advertisers. Facebook, Twitter, Snapchat, and Instagram control the flow of information, and benefit thereby, just as (political and other) advertisers reap the rewards of deep customer insight combined with micro-targeting.

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Politically, Trump, the Republicans and Leave.EU are neither the only players exploiting these technologies, nor are they the first.

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41 Green, J. and S. Issenberg, 'Inside the Trump Bunker, With 12 Days to Go', *Bloomberg*, 27 October 2016, <https://www.bloomberg.com/news/articles/2016-10-27/inside-the-trump-bunker-with-12-days-to-go> (accessed 13 October 2017).

42 Green, Joshua and Sasha Issenberg, 'Inside the Trump Bunker, With Days to Go', *Bloomberg Business Week*, 27 October 2016.

In *Prototype Politics*,<sup>43</sup> Daniel Kreiss offers a history of big data in D.C., where the consensus gives Howard Dean's 2004 presidential campaign the pioneering nod. Dean leveraged the internet to reinvent small donor campaigning, raising a record \$50 million. After his defeat at the hands of George W. Bush, Dean went on to chair the Democratic National Committee until 2009, radically innovating the DNC's digital operations.

And herein lies Kreiss' theme—in victory, the best campaigners are hired into the party and the White House, where they have little chance of continuing to improve the party campaign apparatus. In defeat—or in Bannon's case, departure—bereft digital innovators create consultancies and private projects, changing the culture of the networks, infrastructures and practices surrounding electoral campaigns.

'As I documented in *Taking Our Country Back*, the programmers, open source idealists, dot.commers, and technically skilled college students who migrated to the Howard Dean and Wesley Clark campaigns in 2004 helped forge a new set of innovative technologies and digital organizing practices, and after the election founded new organizations that diffused them across the Democratic Party network', says Kreiss.

By Kreiss' argument, the Republicans' years beneath a Barack Obama-shaped shadow in the 2008 to 2016 political wilderness created precisely the conditions that cultivated a cabal of Cambridge Analytics.

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But there is another condition that brings rise to the Cambridge Analytics and SCL Groups of the world—covert operations in foreign countries, as covered in the Oxford Internet Institute's series of reports.

Even a short review of the Computational Propaganda Research Project's conclusions is stunning:

- Facebook, Twitter, *et al* have become the monopoly platforms for public life
- Social media is now the primary conduit by which young people develop their political identities; and
- So overrun is social media by automated bots and manual trolls, sponsored by governments and organised disinformation campaigns, that the political sections of some platforms are completely controlled by propaganda operations, including bot-driven campaigns, comment-section-flooding of

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<sup>43</sup>Kreiss, D., *Prototype politics: technology-intensive campaigning and the data of democracy*, (New York: Oxford University Press, 2016).

news sites, and the bullying of social media users into silence, stifling real debate and dominating the dialogue of public life.

At the heart of this battleground is Ukraine. The Oxford Study is unambiguous—Ukraine is the frontline for experimentation with and development of computational propaganda. Russian, Ukraine nationalist, and civil society botnets swarm Ukraine's public arena, drowning discourse in a deluge of disinformation. It is open warfare of a radically new variety.

In *HyperNormalisation*, Curtis points to the rise of the role of non-linear warfare in Ukraine, a practice he argues was invented by Putin's 'political technologist', Vladislav Surkov. Seen by most as the Kremlin's lead ideologist, Surkov also advised Putin during the Abkhazian and South Ossetian conflicts.

Having spent three years studying theatre direction at the Moscow Institute of Culture, Surkov took ideas from avant-garde theatre and used them to manipulate the public. Curtis singles out Surkov's pro-Putin domestic designs, where he funded both anti-fascist movements and neo-Nazi organisations. Curtis argues that in a spectacular feint, Surkov then let it be known to the public what he was doing. If anyone doubted Putin's message, the argument goes, they now equally doubted opposition messaging, left as they were uncertain whether the words and deeds of Putin's opponents were authentic, or Surkovian acts. Curtis adds that this rendered all campaigns by all players as 'fake'.

In Ukraine, Syria, and elsewhere, Curtis sees the mighty hand of Surkov. According to Curtis, Western governments were bewildered by Syria, uncertain where and how to act. As the US, the UK, and France bombed ISIS, Russia entered the game, conducting 'non-linear warfare', which Curtis attributes to Surkov. Because no-one understood what Russia wanted in Syria, it became impossible to mount an effective opposition. As Surkov once wrote, 'The underlying aim is not to win the war, but to use the conflict to create a constant state of destabilized perception in order to manage and control.'

The West has struggled to cope with the online version of Surkov's non-linear war. According to the Computational Propaganda study, while Germany has become the international leader in countering networked disinformation, the Polish ICT sector has taken up the mantle of the management of fake accounts and automation on an industrial scale.

As author Lisa-Maria N. Neudert concludes, 'Brexit and the US election have spurred a cautious vigilance in relation to the manipulation of opinion in the digital sphere in Germany. Computational propaganda has become a controversially debated issue on the public agenda, with much media and political attention dedicated to its causes,

agents, and countermeasures.<sup>44</sup> She goes on to say Germany's approach has been one of prevention, rather than waiting to address issues once they've raised their heads.

Poland, on the other hand, appears 'to be entering a new golden age of propaganda, misinformation, and media manipulation, compounded by the wide-ranging political instability and electoral uncertainty that has characterized European politics of late.' The author, Oxford's Robert Gorwa, nominates the country as a bellwether, suggesting that 'A look at Poland ... provides some new perspectives into what is rapidly becoming a global phenomenon.'<sup>45</sup>

In the United States, bots now account for 10% of Twitter traffic and their use is not limited to covert operations. Both Trump and Clinton campaigns employed botnets to shift public opinion, but Trump's network was three times the size of his rival's.

Published in ten documents by twelve researchers examining nine countries, the Computational Propaganda project 'analysed tens of millions [of] posts on seven different social media platforms during scores of elections, political crises, and national security incidents'.<sup>46</sup>

The study uses interviews with political party operatives, freelance campaigners, and election officials. It's not just algorithms distributing the contents of influence campaigns—the report for Taiwan shows that mainland Chinese social media propaganda is heavily coordinated, with a strong human element in the distribution.

'[L]arge and well-organized groups use computational propaganda on Twitter to promote information and perspectives that are counter to Chinese state messages – the 1989 democracy movement, Tibetan rights, and the victims of the pan-Asia scheme. Additionally, independent bots promote ... Hong Kong independence.'

Author Gillian Bolsover goes on to write, 'Twitter is a battleground for public opinion and ... political players apparently see a lot to gain in the use of these computational propaganda techniques to influence the online information environment, particularly in flooding discourse on Twitter about a particular issue.'<sup>47</sup>

44 Neudert, Lisa-Maria N., 'Computational Propaganda in Germany: A Cautionary Tale' in Samuel Woolley and Philip N. Howard, (eds.) Working Paper 2017.7. Oxford, UK: Project on Computational Propaganda, [comprop.oii.ox.ac.uk](http://comprop.oii.ox.ac.uk)

45 Gorwa, Robert, 'Computational Propaganda in Poland: False Amplifiers and the Digital Public Sphere' in Samuel Woolley and Philip N. Howard, (eds.) Working Paper 2017.2. Oxford, UK: Project on Computational Propaganda, [comprop.oii.ox.ac.uk](http://comprop.oii.ox.ac.uk)

46 Woolley and Howard, 'Computational Propaganda Worldwide'.

47 Bolsover, Gillian, 'Computational Propaganda in China: An Alternative Model of a Widespread Practice' in Samuel Woolley and Philip N. Howard, (eds.) Working Paper 2017.11. Oxford, UK: Project on Computational Propaganda, [comprop.oii.ox.ac.uk](http://comprop.oii.ox.ac.uk)

The sheer sweep of the programme presents a breathtaking measure of the state and operations of the disinformation-driven ‘fake news’ world. The suite of studies point out that the World Economic Forum ranks computational propaganda as one of the Top 10 threats to society. But perhaps its most important contribution lies in Sergey Sanovich’s study of Twitter in Russia—Sanovich and his team analysed ‘14 million tweets posted between February 2014 and December 2015 by more than 1.3 million accounts’ posted as the Crimea crisis hotted up. Using a machine learning algorithm, they trained an ‘engine’ to predict whether an account was bot or not.

Says Sanovich: ‘[O]ne fact is particularly illuminating in the context of the discussion of the evolution of the Russian government’s strategy. While our collection covers an important and consequential moment in recent Russian history, during the conflict with Ukraine and the subsequent period of tumultuous relationships with Western countries, and bots’ patterns of activity clearly respond to the conflict dynamics, *many of the bot accounts used in this conflict were created years in advance* [emphasis mine]. While we don’t have data from that time, it is likely that these accounts were used for purely domestic purposes (for example, against Russian opposition, on behalf of Putin or even Medvedev) before they were deployed to wage a Russian propaganda war in Ukraine and beyond.’<sup>48</sup>

In the face of a bewildering level of botnet activity, Sanovich and his team turned the technology on itself, employing AI to analyse, filter, and identify propaganda bots, their activity, their history, and the intention behind them. And in this lies one of the more promising strategies for both ‘sides’. Through sophisticated analytics, influence campaigners have the opportunity to measure the effectiveness of their campaigns—to tweak and hone them, perfecting and directing their message for maximum impact.

And yet in these same engines lies one of the few weapons available to civil society organisations for the reclamation of the public sphere from a tsunami of disinformation and influence campaigning. But, as Tamsin Shaw writes in the *New York Review of Books*, ‘It is impossible to test the claims of organizations such as Cambridge Analytica, since there can be no control group, only the kind of ambiguous observational data that can be attained in a very “noisy” environment.’<sup>49</sup> In other words, how can you prove a negative?

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48 Sanovich, Sergey, ‘Computational Propaganda in Russia: The Origins of Digital Disinformation’ in Samuel Woolley and Philip N. Howard, (eds.) Working Paper 2017.3. Oxford, UK: Project on Computational Propaganda, [comprop.oii.ox.ac.uk](http://comprop.oii.ox.ac.uk)

49 Shaw, T., ‘Invisible Manipulators of Your Mind’, *The New York Review of Books*, 20 April 2017, <http://www.nybooks.com/articles/2017/04/20/kahneman-tversky-invisible-mind-manipulators/> (accessed 13 October 2017).

Social media data insight engines like Netbase, Datasift, and Sprinklr are beginning to yield campaign impact studies to the major players in politics, advertising, and influence campaigning in combination with artificial intelligence frameworks. But their costs are prohibitive, and the level of expertise required to produce meaningful results is high. As the EU Radicalisation Awareness Network has suggested, for civil society organisations to operate in this sphere, ‘tech and social media companies could [...] provide pro bono support with analytic tools that can be used to measure campaign impact’.<sup>50</sup>

For major campaigns, impact measurement seems a strictly internal exercise, with as much disinformation streaming from Cambridge Analytica over their role in campaigns as from the campaigns themselves. What is clear is that two major electoral exercises in two traditional seats of democracy delivered astonishingly awry results, in the face of all predictions and punditry.

Do psychographic influence campaigns work at all? Barring readily available natural language analysis evaluations, it is nearly impossible to tell, but one thing is certain: sat close to the seat of those campaigns were Cambridge Analytica and SCL Group, analysing attitudes, driving discourse, and possibly delivering results that shook the world.

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<sup>50</sup>RAN Issue Paper, ‘Counter Narratives and Alternative Narratives’, Institute for Strategic Dialogue in cooperation with RAN Centre of Excellence, 10 January 2015, [https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/networks/radicalisation\\_awareness\\_network/ran-papers/docs/issue\\_paper\\_cn\\_oct2015\\_en.pdf](https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/networks/radicalisation_awareness_network/ran-papers/docs/issue_paper_cn_oct2015_en.pdf) (accessed 12 October 2017).

