

SILICON VALLEY, WE HAVE A (DIS)INFORMATION PROBLEM



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Introduction: Symptoms and causes

Silicon Valley is facing a disinformation problem that is poisoning the infosphere, creating filter bubbles and echo chambers, feeding polarization and entrenchment, and resulting in the misuse of data to shape political debates through military-grade psychological operations, manipulation, and propaganda. There is incivility, disinhibition, and a loss of decorum, driven by online anonymity. First, we were told by the media, by experts, by academics, that the problem was the entry into an era of post truth.¹ Then we were told it was fake news.² But all the above are symptoms of disinformation and we need to get to the root causes if we want to cure them.

The public relations and communication functions are impacted by the disinformation problem. Many would argue that unethical behaviour by professional communicators has played a role in getting us to this point. A recent undercover report by UK broadcaster Channel 4 about Cambridge Analytica's disinformation practices featured Mark Turnbull, managing director of its political division. Turnbull is a former executive at Bell Pottinger, where he was involved in the now disgraced firm's political work.³

The industry's response is to call for the enforcement of ethical standards. USC Annenberg's 2018 Global Communications Report, in partnership with Edelman and The Holmes Report, and supported by the Institute for Public Relations, focuses on "The Evolution of Ethics" as a reaction to recent events.⁴ The challenge for communicators is to understand and address both the digital and the human side of the problem. Ethical standards that will help organisations and their stakeholders navigate the treacherous landscape need to be based on transparency and openness, an understanding that the ultimate purpose even of digital communication is always to have an impact on a human audience.

When we discuss the digital economy, big data analytics, AI and machine-learning, our algorithmic future, we often forget the analogue intelligence behind it: the humans creating the algorithms, writing the codes – not to mention the customers and users, the recipients of software, information and communication. And we need to remember that the biggest problems are not solved by a single solution. They do not fit into one department with one sort of expertise. When we deal with humans, it gets complicated, and messy. For example, the history of "fake news," disinformation, and propaganda is a history of human communication. Whether we look at the pyramids as an act of pharaonic propaganda, or *the New York Sun's* "Great Moon Hoax" of 1835⁵ to drive circulation and profit, as well as plenty of other examples, there is always the intention, the purpose to persuade and influence, often with illegitimate means.

Modern political marketing and the abuse of data, and trust

The saga about Cambridge Analytica and their use of Facebook data in their psychographic modelling of voters, and subsequent microtargeting with individualized online messages, was reported since

¹ Oxford Dictionaries defines post truth, its word (or phrase) of the year 2016, as "relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief" (Oxford Dictionaries, 2016, November 8: Word of the Year. Oxford University Press. Retrieved 2017, from Oxford Living Dictionaries: en.oxforddictionaries.com)

² The word (or phrase) of the year 2017 for Collins Dictionary, fake news is defined as "false, often sensational, information disseminated under the guise of news reporting." (Collins Dictionary, 2017: Word of the Year 2017: Fake News. Retrieved from <https://www.collinsdictionary.com/woty>)

³ <https://www.ft.com/content/b1a49898-2c44-11e8-a34a-7e7563b0b0f4>

⁴ <https://annenberg.usc.edu/research/center-public-relations/global-communications-report>

⁵ <https://www.politico.com/magazine/story/2016/12/fake-news-history-long-violent-214535>

early 2017.⁶ It received limited attention until mid-March 2018, when the *Guardian* and *Observer* in the UK started breaking the story of Christopher Wylie and a number of other whistleblowers. Now the center of global media attention, the practices described are merely the latest example of purposive, persuasive political advertising (plus a good deal of highly unethical behavior by a number of actors). Barack Obama and his chief strategists David Axelrod and David Plouffe were praised by marketing experts for the efficacy of their digital campaigning in 2008⁷ and 2012. Plouffe went on to advise Hilary Clinton's 2016 unsuccessful presidential campaign, which employed largely the same tactics that were successful in the previous two campaigns.⁸

In many ways, the 2016 digital campaign was no different from 2008 or 2012: it was about crunching diverse data sets for correlations, finding weak signals in strong noise, identifying opportunities that opponents have missed. More data allows a more sophisticated, granular way of demographic segmentation. Not more, not less. However, there are some significant differences. The language employed to describe the more controversial recent activities in political digital marketing is revealing: there is talk of culture wars⁹, of weaponized information and "Bannon's psychological warfare tool."¹⁰

We will come back to the military connection, but what makes the Cambridge Analytica story significant beyond the newsworthy specifics¹¹ is its rapid metastasizing into many different, but related narratives with a common theme: big tech is out of control, and action needs to be taken. This paper explores some the narrative strands of that so-called 'techlash'¹², and discusses various routes for action.

The focus here is on political marketing and advertising, as the case at hand touches on challenges to Western liberal democracies through a number of threats beyond the misuse of Facebook data.¹³ However, it goes without saying that techniques applied in political marketing are almost always easily transferred to consumer and product marketing. In many ways, politics is the test bed for the consumer space. And therein lies a big concern: the tale of fake news, mis- and disinformation in recent political campaigns, not just in the US and in the UK, but all over the world, is one of a confluence of seemingly unrelated causes to one outcome—the gradual contamination of the information sphere.¹⁴

Whether it is Moldovan teenagers earning money from generating clickbait,¹⁵ foreign disinformation operations aiming to sow confusion and to undermine the base of civic common sense and trust,¹⁶ or powerful and resourceful partisan interests addressing people's base instincts for political gain¹⁷ – all these activities have become much easier in the networked attention economy.

⁶ https://motherboard.vice.com/en_us/article/mg9vvn/how-our-likes-helped-trump-win

⁷ <http://adage.com/article/special-report-marketer-of-the-year/barack-obama/131757/>

⁸ <https://www.nytimes.com/2016/11/11/opinion/what-i-got-wrong-about-the-election.html>

⁹ <https://www.ft.com/content/5ac4d090-f6f9-11e7-a4c9-bbdefa4f210b>

¹⁰ <https://www.theguardian.com/news/2018/mar/17/data-war-whistleblower-christopher-wylie-faceook-nix-bannon-trump>

¹¹ <https://www.theguardian.com/news/series/cambridge-analytica-files>

¹² <https://www.theguardian.com/commentisfree/2018/feb/11/dawn-of-the-techlash>

¹³ For example, interference by foreign powers through so-called psychological operations; bots and sock puppets etc.

¹⁴ <https://www.eff.org/deeplinks/2018/02/malicious-use-artificial-intelligence-forecasting-prevention-and-mitigation>

¹⁵ <https://www.wired.com/2017/02/veles-macedonia-fake-news/>

¹⁶ <http://www.niemanlab.org/2018/02/should-we-consider-fake-news-another-form-of-not-particularly-effective-political-persuasion-or-something-more-dangerous/>

¹⁷ https://www.salon.com/2018/03/16/is-social-media-destroying-democracy_partner/

The Cambridge Analytica case is about abuse of trust, as well as abuse of rules and regulations. However, irrespective of Facebook's potential complicity in a business partner's illicit and potentially illegal activities, the 2016 election cycle was big business for the social platforms. It was approached systematically and strategically, with political marketing data experts embedded at presidential candidates' campaigns, to optimize the use of all available data.¹⁸

However, there is also a hype factor at play. In 2012, *Harvard Business Review* called "Data Scientist: The Sexiest Job of the 21st Century."¹⁹ It is no wonder, then, that data analytics are not just used to answer research questions but have become a form of self-promotion. Again, the case of Cambridge Analytica and its ex-CEO Alexander Nix²⁰ may now be the most notorious. It is by no means the only one.

Accounts of 'weaponized data analytics' to sway elections need to be taken with a grain of salt, as a number of commentators have pointed out.²¹ What is still missing is independent verification. Everything that is being reported is about underhand, covert practices. There is no coherent, comprehensive picture yet of how data, models, targeting and outcome are related. Antonio Garcia Martinez, the former head of Facebook's ad targeting team, is an informed sceptic who understands the possibilities of granular targeting, but who questions the bullish claims of efficacy. He cautions against "truthy marketing fairy tales."²²

Attributing effects to causes in communication and marketing is notoriously difficult. It brings to mind the eternal struggle to prove return on investment, so famously lamented by John Wanamaker: "Half the money I spend on advertising is wasted; the trouble is I don't know which half."²³ In politics, the desired effect can be mobilization or suppression, agitation or apathy. What seems clear is that data has been used and abused to promote, and at least in some cases, achieve these various goals. Many observers are now concerned that this happened not only in a way that runs counter to democratic principles, but also, that we are only seeing the very beginnings – the tip of the iceberg.

Shoshana Zuboff, retired Professor of Business Administration at Harvard Business School, coined the phrase Surveillance Capitalism for the systematic and comprehensive way in which personal behavioral data, and its translation into commercially relevant predictions, has become a new source of wealth creation. In an article from March 2016, she quoted the Chief Data Scientist of a well-known Silicon Valley firm to illustrate the end-to-end approach:

"The goal of everything we do is to change people's actual behavior at scale. When people use our app, we can capture their behaviors, identify good and bad behaviors, and develop ways to reward the good and punish the bad. We can test how actionable our cues are for them and how profitable for us".²⁴

In the past, Facebook has been fairly open about its data experiments to gauge, affect and algorithmically predict human behaviour. Its psychosocial experiment with researchers at Cornell University, where 'emotional contagion' was tested on more than 700,000 unaware users through

¹⁸ See the excellent academic study by Daniel Kreiss and Shannon McGregor:

<https://www.tandfonline.com/doi/abs/10.1080/10584609.2017.1364814>

¹⁹ <https://hbr.org/2012/10/data-scientist-the-sexiest-job-of-the-21st-century>

²⁰ <https://heavy.com/news/2018/03/alexander-nix-cambridge-analytica-photos-bio/>

²¹ <http://www.latimes.com/politics/la-na-pol-cambridge-analytica-20180321-story.html>

²² https://www.wired.com/story/the-noisy-fallacies-of-psychographic-targeting/amp?_twitter_impression=true

²³ <http://adage.com/article/special-report-the-advertising-century/john-wanamaker/140185/>

²⁴ http://m.faz.net/aktuell/feuilleton/debatten/the-digital-debate/shoshana-zuboff-secrets-of-surveillance-capitalism-14103616.amp.html?printPagedArticle=true&_twitter_impression=true

algorithmic changes in their newsfeed and subsequent observation of online behavior change, was published in the prestigious Proceedings of the National Academy of Sciences (PNAS)²⁵ in 2014.

Such experiments are seen as social engineering by some critical observers²⁶, and as an infringement of our “cognitive liberty” by others.²⁷ The companies benefiting from the monetising of personal, behavioral data argue that users have consented to data being taken, through the acceptance of terms and conditions. Baroness Onora O’Neill, the esteemed British philosopher of trust, argued in a 2003 paper in the Journal for Medical Ethics that informed consent should empower the consentor, rather than just be a ritual.²⁸ There are lessons to be learned for companies such as Facebook, who want to rebuild trust with their users.

These experiments, together with the perceived lack of transparency and accountability in microtargeting and programmatic advertising, are contributing to the rising tide of unease about the general direction of big tech. For years now, critical experts such as former Google employee Tristan Harris²⁹ and techno-sociologist Zeynep Tufekci³⁰ have been warning about the risks of algorithmic systems optimizing for user’s attention. As there is ever more competition for our attention, companies aim to secure our focus by serving us more of what we like, in more intense (some might argue, extreme) doses. Harris calls it a “race to the bottom of the brain stem”³¹, and Tufekci recently described YouTube as the “Great Radicalizer” in a piece for the *New York Times*.³²

In recent months, they have been joined by a growing movement of Silicon Valley heretics – former employees of Google, Facebook, YouTube etc. - who all feel it is time to rein in big tech. The Center for Humane Technology³³ was established in February 2018³⁴ to provide a home for this growing movement.

Perception is value

The increasingly critical sentiment toward big tech companies has real consequences for marketers and communicators. Publicly-listed technology firms are the most valuable companies on the planet: At the time of writing, Apple is worth \$865bn; Alphabet \$723bn; Microsoft \$704bn; Amazon \$698bn; Tencent \$495bn; Alibaba \$469bn, and Facebook \$465bn (following a 15% plunge in the two weeks since the Cambridge Analytica story broke). Share price and market value are perception-based, it’s what investors see as future return and growth. It is not the same as tangible assets and revenue: in 2017, Walmart’s revenue was three times that of Amazon. And Walmart paid significantly more corporate tax over the last ten years, than Amazon, because its profits were significantly higher.³⁵

For marketers and communicators, this is the really big story: perceptions of trust and fairness matter. So, when the leading technology firms are seen as exploiting their users’ data, when they portray themselves as socially conscious but at the same time are portrayed, at least in Europe,³⁶ as not paying their fair share of corporate taxes, that has immediate and longer-term consequences for

²⁵ <http://www.pnas.org/content/111/24/8788/tab-article-info>

²⁶ <https://lareviewofbooks.org/article/manipulators-facebooks-social-engineering-project/>

²⁷ <https://blogs.scientificamerican.com/observations/cambridge-analytica-and-online-manipulation/>

²⁸ <http://jme.bmj.com/content/29/1/4>

²⁹ https://www.ted.com/talks/tristan_harris_the_manipulative_tricks_tech_companies_use_to_capture_your_attention

³⁰ https://www.ted.com/talks/zeynep_tufekci_we_re_building_a_dystopia_just_to_make_people_click_on_ads

³¹ <https://www.theatlantic.com/magazine/archive/2016/11/the-binge-breaker/501122/>

³² <https://www.nytimes.com/2018/03/10/opinion/sunday/youtube-politics-radical.html>

³³ <http://humanetech.com/>

³⁴ <https://mashable.com/2018/02/05/center-for-humane-technology-silicon-valley-unchecked-power/#2hLRsk983EqT>

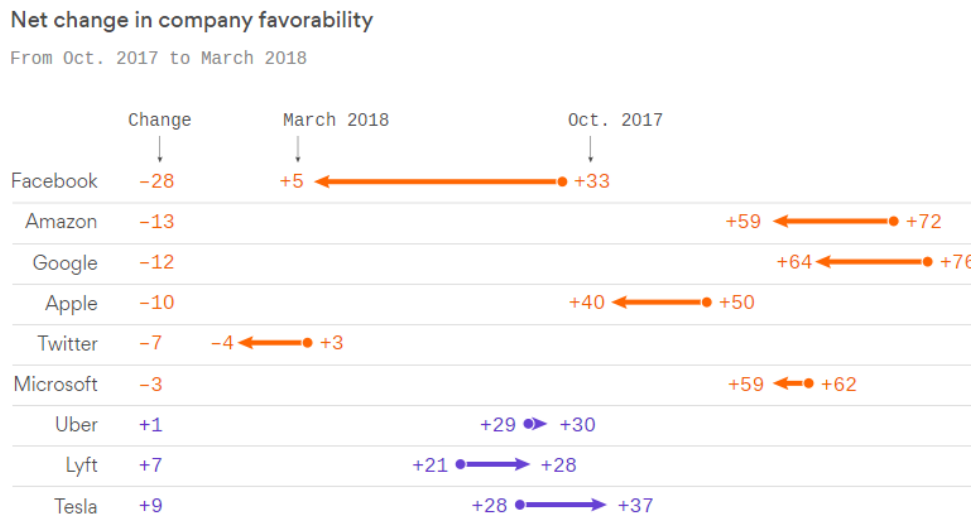
³⁵ <https://www.bloomberg.com/view/articles/2017-09-19/why-wal-mart-pays-a-lot-more-in-taxes-than-amazon>

³⁶ <https://www.ft.com/content/e38b60ce-27d7-11e8-b27e-cc62a39d57a0>

both their reputation, and their share price. This study published by *Axios* shows the reputation effect:³⁷

Exclusive poll: Facebook favorability plunges

An exclusive poll for *Axios* by SurveyMonkey found that Facebook's favorability has plunged in the last five months.



Data: SurveyMonkey polls conducted [March 21-23, 2018](#) and [Oct. 23-26, 2017](#). Poll Methodology.; Chart: Lazaro Gamio/Axios

Mike Allen on *Axios.com*, 26th March 2018

Facebook's crisis management challenge

There is an almost typical story trajectory of Silicon Valley start-ups enjoying stratospheric early success, followed by varying doses of hubris, arrogance and complacency before the unavoidable rude awakening. Uber is an example, and now also Facebook. Inevitably, these stories are about trust. They involve users, investors, regulators, the media. In the case of Facebook, the biggest concern seems to be the community of users. But it is not just about a social contract, it is also about a commercial contract between Facebook and its users. If you don't pay for the product, you are the product, as the saying goes. Users have the benefit of Facebook's free platform and app ecosystem. The cost is incurred in form of access to their data with Facebook makes available to advertisers to help them optimize their ad targeting.

In the commercial contract between Facebook and its advertisers, trust is being undermined by inflated reach figures, by opinion (and market) leaders such as Procter & Gamble's CMO Mark Pritchard exposing digital advertising as the Emperor with no clothes,³⁸ something that UK trade journal *Campaign* had already pointed to in 2012.³⁹

The Facebook story also illustrates how fast things are moving these days, how urgent the problem is and how vast the scale. As mentioned before, Facebook's share price is down almost 15% since the

³⁷ <https://www.axios.com/exclusive-poll-facebook-favorability-plunges-1522057235-b1fa31db-e646-4413-a273-95d3387da4f2.html?source=sidebar>

³⁸ <http://www.adweek.com/brand-marketing/when-procter-gamble-cut-200-million-in-digital-ad-spend-its-marketing-became-10-more-effective/>

³⁹ <https://www.campaignlive.co.uk/article/digital-emperors-new-clothes/1187439>

Guardian first broke the story, with further volatility induced by news that the US Federal Trade Commission (FTC), is investigating Facebook regarding concerns over privacy practices⁴⁰.

How much of this is down to suboptimal communication in crisis is hard to ascertain. However, with the benefit of hindsight, some of the poor choices seem obvious: first, threatening to sue the newspaper about to break the story; then banning the whistle-blower from the platform; no comment from executive management for almost a week; finally, admission of a problem and taking out full page print ads in the *New York Times*, *the Washington Post*, *the Wall Street Journal* and six UK newspapers.⁴¹ Facebook is framing the issue as a consumer privacy problem, but its stakeholders across user, investor, and regulatory communities see challenges around monopolization of the advertising market (together with Google), the manipulation of attention, and the continued erosion of traditional publishers' business models.

The wider story at play – psychology, persuasive technology, and ethics

Still, Facebook is just one example of a technology start-up struggling with its success. The larger tale, the broader context is one of oversimplified concepts of human psychology, and behavior. Mechanistic, behaviorist, stimulus response models of human behavior, be it individuals or groups, have dominated marketing and communication since its beginnings. Edward Bernays, often called the 'father of PR', was hugely influenced by the psychological and sociological science of his day – no surprise given that he was Sigmund Freud's nephew.⁴²

Today, Stanford University's Persuasive Technology Lab⁴³ is seen as a fast track to success in Silicon Valley. It teaches captology as the intersection between persuasion and digital technology, where persuasive product design influences people and changes behavior. The lab's founder, behavioral psychologist B.J. Fogg, is conscious of potential ethical challenges of persuasive technology, and features this in his teaching.⁴⁴

Teaching is one thing. Practicing, another. Introducing ethics into a technology company's business model and operational management is no small feat. The aforementioned Tristan Harris, now a leader in the movement for a more ethical technology, was design ethicist at Google.⁴⁵ He decided that his work would be more impactful as an. Harris and others warn against the addictive patterns of modern technology design, which are tapping into the same neurobiological dopamine cycles as, for example, gambling. He likens the swipe on a smartphone or tablet to pulling the lever on a slot machine: you don't know what's coming, but every time you're hoping for a win.⁴⁶

⁴⁰ <https://www.ftc.gov/news-events/press-releases/2018/03/statement-acting-director-ftcs-bureau-consumer-protection>

⁴¹ <http://www.thedrum.com/news/2018/03/25/facebook-says-sorry-with-uk-newspaper-ads-report-finds-it-was-warned-data-risks-2011>

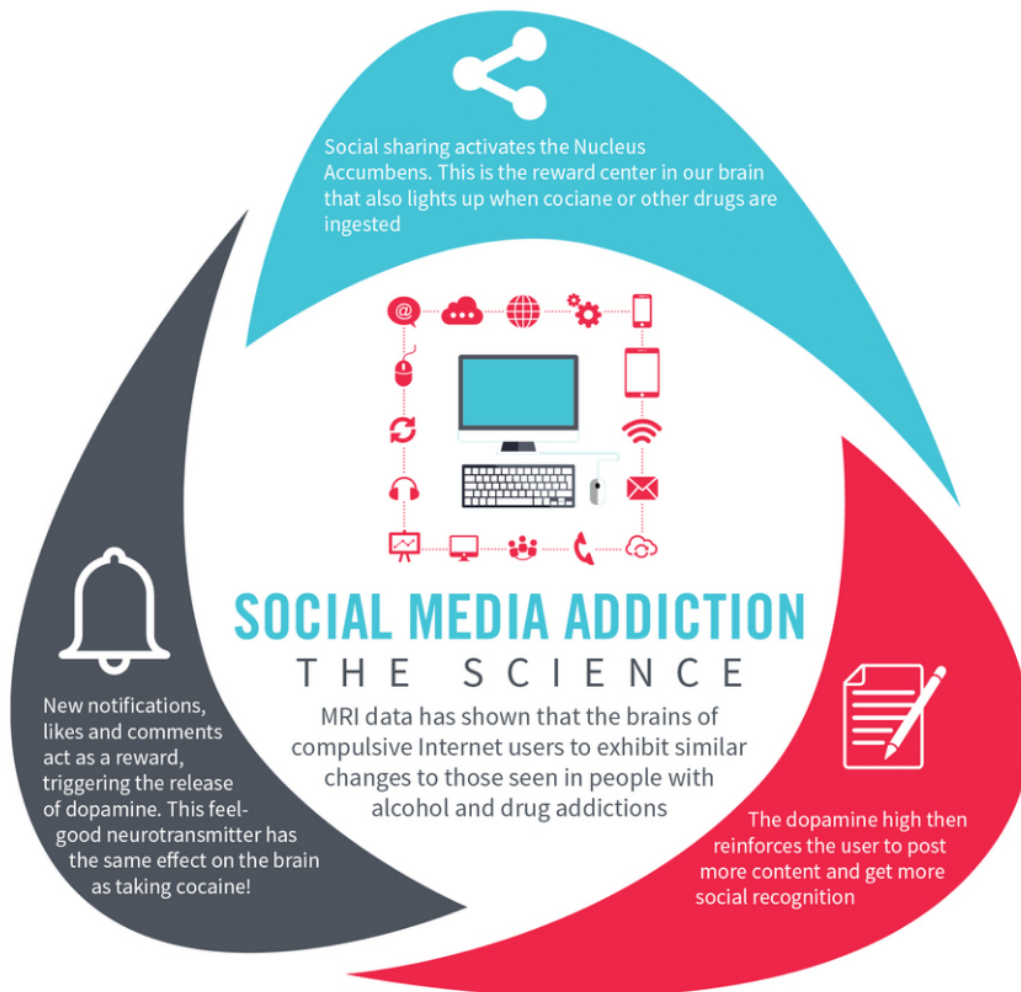
⁴² <http://www.apa.org/monitor/2009/12/consumer.aspx>

⁴³ <http://captology.stanford.edu/>

⁴⁴ <http://captology.stanford.edu/uncategorized/7-points-on-ethics-and-persuasive-technology.html>

⁴⁵ <https://www.npr.org/2017/07/10/536505290/tech-design-ethicist-works-to-raise-awareness-of-internet-addiction>

⁴⁶ <https://www.theguardian.com/technology/2017/oct/05/smartphone-addiction-silicon-valley-dystopia>



Sakina Groth, 12th June 2015: <http://elseapp.co/blog/2015/socialmediaaddictionisreal>

Through ongoing media and thus public attention on data misuse, interference in democratic processes through disinformation etc., organizations are highly aware of the issue of digital ethics. There are calls for chief ethicists to join management boards, but unless business ethics become a standard of corporate reporting, this role has limited impact.⁴⁷ In the meantime, ethics continue to play a role through the impact of media coverage, corporate reputation and public opinion.⁴⁸

Psychological operations

What we are experiencing is an arms race to our behavioral control center through the manifold applications of persuasive design: visual and audio notifications, microtargeted programmatic advertising, autoplay features and plugins. Questions are being asked as to how to disarm the “weapons of mass distraction”.⁴⁹ And the close connection to the military is more than just semantic: alongside the four classic dimensions of warfare – land, sea, air, space – there is now a

⁴⁷ <https://www.forbes.com/sites/joannabelbey/2018/03/30/how-to-show-the-roi-of-compliance-at-your-firm/#78bfbbec6821>

⁴⁸ <https://www.nature.com/articles/d41586-018-03856-4>

⁴⁹ <http://www.nybooks.com/daily/2018/03/15/disarming-the-weapons-of-mass-distraction/>

fifth, information and cyberspace⁵⁰, and even a sixth, the human brain.⁵¹ Edward Bernays worked in Woodrow Wilson's Committee on Public Information, a government agency created to influence public opinion to support US participation in World War I.⁵² Professor Tamsin Shaw from New York University discussed the role of the 'new military-industrial complex' in an essay for the *New York Review of Books*.⁵³ She described the history of dual-use research in social psychology in the US since World War II, where the military not only funded academic research, but also encouraged commercial application. This is common practice, but Shaw advocates paying closer attention to how this might affect life in our democratic society.

Disinformation as a strategic military tool has a very long tradition, going back to the ancient principles of confusion and deception laid out by Sun Tzu in *The Art of War*. It is common knowledge that the Internet protocol TCP/IP was developed by the US Defense Advanced Research Projects Agency (DARPA), and a lot of the technology that powers innovation and finds its way into our smart devices was originally funded by DARPA. It is thus no surprise that principles and methods of psychological warfare have found their way into non-militaristic applications, in particular in political marketing.⁵⁴

Gaming, hacking and jacking

In non-militaristic contexts and language, we recognize a 'gaming of reality' through algorithmic suggestions and choices,⁵⁵ as well as 'mind-hacking'⁵⁶ and 'attention-jacking'.⁵⁷ Data is often described as the new oil, however more importantly, attention is the new oxygen⁵⁸ in the attention economy. Technology companies are earning advertising money from getting and keeping the attention of users use algorithmic optimization. That optimization taps into fundamentals of human behavior, as previously discussed: dopamine drives reward-seeking, and every ping on a smartphone is a trigger. Every swipe and every response adds to the digital trail, which in turn is hoovered up for more optimization.

This is not negative in itself, despite having been described as the 'original sin'⁵⁹ or the 'Faustian bargain'⁶⁰ of the internet (to repeat this important point: "when you don't pay for the product, then you are the product"). What can make it problematic is a lack of understanding of the consequences, both on the side of the companies, and the users. The last part of this paper, therefore, looks at education and regulation as attempts to put the proverbial genie back into the bottle.

⁵⁰ <https://www.economist.com/node/16478792>

⁵¹ <https://www.wired.com/2012/12/the-next-warfare-domain-is-your-brain/>

⁵² <http://theconversation.com/how-woodrow-wilsons-propaganda-machine-changed-american-journalism-76270>

⁵³ <https://www.nybooks.com/daily/2018/03/21/the-digital-military-industrial-complex/>

⁵⁴ <http://www.nybooks.com/articles/2018/04/05/silicon-valley-beware-big-five/>

⁵⁵ <https://www.theguardian.com/technology/2018/feb/05/senator-warns-youtube-algorithm-may-be-open-to-manipulation-by-bad-actors>

⁵⁶ <https://www.wired.com/story/our-minds-have-been-hijacked-by-our-phones-tristan-harris-wants-to-rescue-them/>

⁵⁷ <https://medium.com/mentionmapp/how-socialbots-are-attention-jacking-machines-419974eaa4d6>

⁵⁸ <http://www.digitalistmag.com/customer-experience/2016/09/23/3-reasons-attention-is-like-oxygen-for-media-companies-04502491>

⁵⁹ <https://www.theatlantic.com/technology/archive/2014/08/advertising-is-the-internets-original-sin/376041/>

⁶⁰ <https://www.theguardian.com/technology/2015/may/17/sold-our-souls-and-more-to-internet-giants-privacy-surveillance-bruce-schneier>

Taking back control: education, regulation, governance

Education has a critical role to play in curbing the excesses and unintended consequences of the (dis)information society, from parents' responsibility and primary school all the way to tertiary education, vocational training etc. Experts advocate for more media literacy to address the problem.⁶¹ This paper looks at the issues through an even wider lens, where civic literacy, or even human literacy become concepts to be considered.

On regulation and governance, there is a growing awareness that at present, we have a largely analogue legal and regulatory framework, dealing with exponentially growing digital challenges. With regard to data protection, the idea of a 'Consumer Privacy Bill of Rights', first suggested in 2012 by then president Obama, is resurfacing, despite being criticized from all sides.⁶² Together with GDPR in Europe, this could form a powerful transatlantic platform for a global data protection initiative.

It is worth remembering that the US Constitution, the Bill of Rights, the 1st and 2nd Amendments are more than 200 years old. They were formulated and passed in a particular historical context. The historical context we are finding ourselves in today calls for digital amendments. Marcello Ienca and Effy Vayena from the Swiss Federal Institute of Technology (ETH Zurich) discussed some ideas in a recent contribution for *Scientific American*, including the concept of "cognitive liberty" as the "freedom to control one's own cognitive dimension (including preferences, choices and beliefs) and to be protected from manipulative strategies that are designed to bypass one's cognitive defences".⁶³

In his response to the Cambridge Analytica revelations, Mark Zuckerberg advocated for an ad transparency regulation, putting responsibility on the ad buyers.⁶⁴ Regulators, however, might want to go further. First, what is required is more and better scientific evidence as to what is real and what is hype in psychographic manipulation. Then perhaps it is time to consider adequate governance of the attention economy and surveillance capitalism, and even the constitutional protection of the individual mind.

In many ways, the debate has only just begun in earnest, and companies, advertisers, regulators and consumers will have to find better solutions together. The sheer size and power of the big tech companies will likely not be enough in the long run to avoid the debate that goes to the heart of their business, namely to sell users and their data to the highest bidder in return for convenience and seemingly free services.

We are not quite at a point where comparisons to Standard Oil and AT&T seem appropriate.⁶⁵ On the other hand, we are probably not that far off, either. Tim Wu, who coined the phrase 'net neutrality' and remains its lead proponent⁶⁶, is also one of the most vociferous critics of big tech. He explored the subject in two books, *The Master Switch* in 2011 (where he drew comparison with previous information empires, for example AT&T and Bell), and *The Attention Merchants* in 2016 (where he addresses the problem of permanent attention seeking in our information economy). He

⁶¹ Exceptional work in this area is done by Claire Wardle and FirstDraft, now part of Harvard Kennedy School's Shorenstein Center on Media, Politics and Public Policy <https://firstdraftnews.org/?s=disinformation>

⁶² <https://www.theatlantic.com/politics/archive/2015/02/obamas-privacy-bill-of-rights-gets-bashed-from-all-sides/456576/>

⁶³ <https://blogs.scientificamerican.com/observations/cambridge-analytica-and-online-manipulation/>

⁶⁴ <https://www.campaignlive.co.uk/article/sorry-zuckerberg-love-see-ad-transparency-regulation-responds-plan/1460121>

⁶⁵ <https://www.theguardian.com/business/2018/mar/25/is-it-time-to-break-up-the-tech-giants-such-as-facebook>

⁶⁶ <https://www.publishersweekly.com/pw/by-topic/industry-news/libraries/article/76470-tim-wu-equates-net-neutrality-with-the-first-amendment.html>

is also a former senior adviser to the FTC, who described the intrinsic problem of for-profit businesses leveraging public trust whilst negating privacy as it was “kryptonite to their business model”.⁶⁷ *The Economist* highlighted comparisons between the ‘robber barons’ and the ‘silicon sultans’ already in late 2014.⁶⁸ Coincidentally, the cases of Standard Oil and AT&T were also cases of great communicators: Ivy Lee in the former case, Arthur W. Page in the latter.

In any case, the questions are now being asked, and answers will need to be found, be it via industry self-regulation, or via national governments and/or international authorities. This should also include certification, auditing, more open data access for independent researchers. The US legal thinktank Just Security has come up with some interesting ideas.⁶⁹ Whatever the chosen path (or paths) will be, what might be lost for businesses in terms of competitive advantage will be made up for in terms of regained trust and reputation.

And then, of course, based on better education and awareness, there is the application of common sense on all sides: be conscious, be cautious, be compliant, be diligent. Also, in many ways, principles of proper conduct such as transparency and accountability are more important, than trying to employ new technical standards and rules. Openness will address the information asymmetry, which in turn is a precondition to foster trust.

Conclusion

“When the context of a story changes, so does its trajectory”, said Emily Bell, director of the Tow Centre for Digital Journalism at Columbia University in her *Tricky* podcast recently.⁷⁰ One of the defining characteristics of our times is an acceleration towards ever faster, real time, always on news cycles. In fact, the term ‘news cycle’ is no longer adequate as we experience a constant news stream, created, triggered and amplified through social channels and networks. This has created a lot of volatility with the permanent potential for disruptive transformation, and change.

The technological advances that have led to the World Wide Web, a globally networked information sphere, a fast-growing attention economy with an evolving surveillance capitalism that monetizes behavioral data to create more persuasive products and services, have also created unintended consequences that have the potential to threaten our civic society through fake news, mis-, dis- and malinformation.⁷¹

So far, marketing and communication have been comparatively quiet on this topic. Academic and industry critic Mark Ritson commented in *Marketing Week* that the silence is not surprising, given that the industry has been applying Cambridge Analytica style tactics for years.⁷² *PRWeek* advocates more transparency with consumers, more due diligence with partners, and generally a more ethical approach to data collection practices.⁷³ This is a double-edge sword for marketing and communication: on the one hand, the opportunity to reach target audiences much more precisely and efficiently. On the other hand, the risk to invade privacy and to erode trust and goodwill. In the

⁶⁷ <https://www.npr.org/2018/03/27/597221954/facebook-previously-failed-to-keep-privacy-promises-ex-ftc-adviser-says>

⁶⁸ <https://www.economist.com/news/briefing/21637338-todays-tech-billionaires-have-lot-common-previous-generation-capitalist>

⁶⁹ <https://www.justsecurity.org/54214/mr-zuckerberg-regulated/>

⁷⁰ Published on 23rd March 2018: <http://journalismdesign.libsyn.com/website/propaganda-and-pink-hair>

⁷¹ Information Disorder: Toward an interdisciplinary framework for research and policy making; Claire Wardle & Hossein Derakhshan: <https://rm.coe.int/information-disorder-toward-an-interdisciplinary-framework-for-research/168076277c>

⁷² <https://www.marketingweek.com/2018/03/28/mark-ritson-cambridge-analytica/>

⁷³ <https://www.prweek.com/article/1460875/lessons-brands-away-facebooks-data-privacy-scandal>

long run, regulation and legislation might provide better guidance, but for now, marketing and communication functions need to help their organizations tread a fine line.

Rather than apply to abstract concepts such as ethical guidelines and compliance, perhaps it will help to address the human and civil aspects more directly by applying common sense. One of the critical new skills for organizations, therefore, is to navigate a more uncertain, less foreseeable world, benefiting from new technologies and evolving ecosystems whilst safeguarding against the unintended consequences. Where humans are involved and concerned, no amount of big data powered predictive analytics will change that. And that is really good news for communicators.



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