

Digital manipulation: machine readable humans vs. inscrutable machines

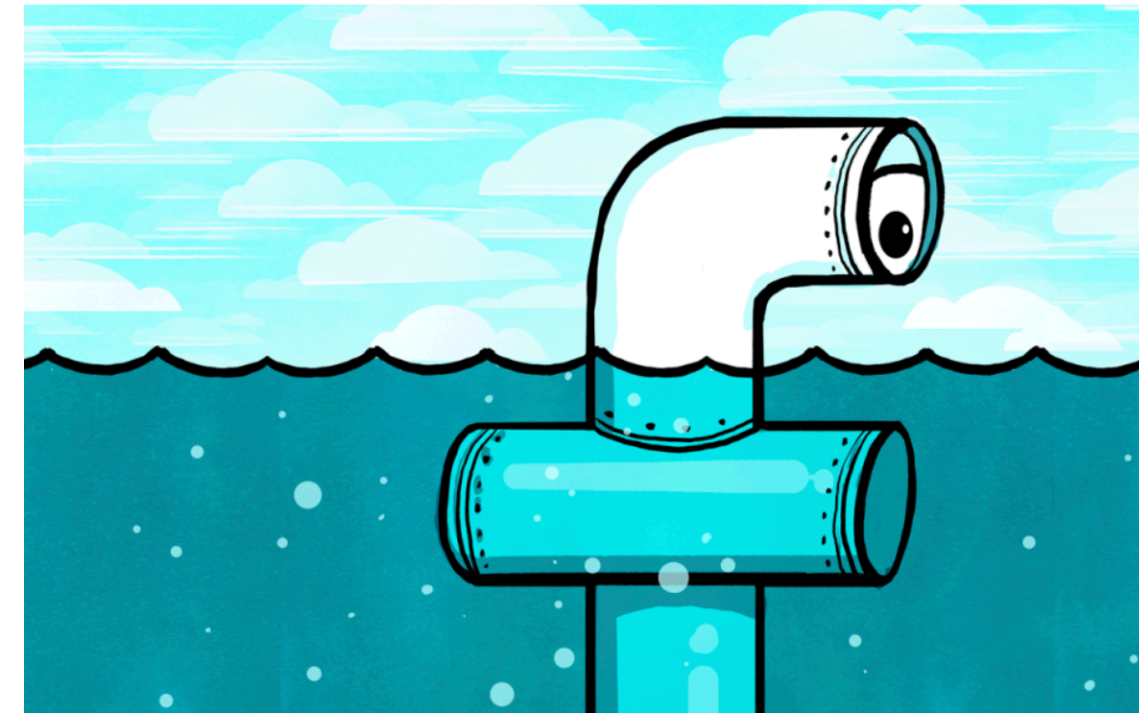
Helen Nissenbaum
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IIC/BEREC Telecommunications and Media Forum
26 May 2021

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CNS-1704527, SES-1537324, SES-1650589; MacArthur Foundation*

Facebook Told Advertise How It Could Target Vulnerable Teens

"Anxious" and "overwhelmed" Australians as young as 14 were swept up by alg Facebook said it was never used to target ads



DATA PRIVACY

NEWS

· 2 MIN READ

Is Facebook's Sentiment Analysis Targeting Vulnerable Teens?



SCOTT IKEDA · MAY 5, 2017



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When George Orwell wrote his classic masterpiece, he imagined a world where you were under constant surveillance and your psyche moulded by an ever-present Big Brother. Little did he know how true his vision would become. And those few cubic centimetres in your skull aren't yours any more either – at least when you're a teenager. Even more so if you are a Facebook user as Facebook's sentiment analysis wants to know exactly how you feel as a teenager.

Inspired by RW cases

- Facebook targeting ads to vulnerable teens
 - Asserted it could be done; no evidence it was done
- Cambridge Analytica
 - Psychographic profiling and targeted attention; disinformation; radicalization. Christopher Wylie: “We exploited Facebook to harvest millions of people's profiles and built models to exploit what we knew about them and target their inner demons.”
- Uber
 - Bait-and-switch heat map showing ostensible surge areas of high demand; conflate real-time and predicted demand; use *dark pattern* to discourage ending shift, “are you sure you...”; gamify by setting meaningless targets; tee up new ride before current one ends (cf. Netflix!)
- Dark Patterns (a lot of excellent work)
 - Interface design crafted to trick users

Motivated by prior research & scholarship

- Manipulation via digital media, platforms, services, workplaces (e.g. gig workers)
 - E.g. Acquisti, Brandimarte, Calo, Lev-Aretz, Stark, Strahilevitz, Yeung, Zarsky
- Philosophical work on manipulation by ethicists
 - E.g. Noggle, Wood, Coons and Weber, Buss, Baron, Manne, Barnhill
- Our own work on tracking online and off, data aggregation across contexts, profiling, privacy, targeting, QOL, algorithmic decisions.

Notice this?

Defining manipulative practice

- *What is it?*
- *What isn't it?*
- *Is there a conceptual account (fuzzy borders OK) that can inform ethics, policy, & system design?*

Manipulative practice: definition

*Imposing a **hidden** or covert **influence** on another person's **decision-making**.*

Intentionally shaping the beliefs, desires, emotions, habits, or behaviors of targets of manipulation, while thwarting their capacity to be aware of such interventions. Often this is done by undermining usually reliable assumptions about the world.

The Digital Technology Turbocharge

*“the use of **digital technology** to **covertly** influence another person’s **decision-making**.”*

- *Concealment*
- *Exploitation of general vulnerabilities (these are dark patterns)*
- *Exploitation and discovery of individual vulnerabilities*

*“As Ryan Calo puts it, “firms will increasingly be in the position to **create** suckers, rather than waiting for one to be born.”*

Digital tech discovering!

- Surveillance - 360 degrees; multi-party aggregations; seamless profiles
- Platforms - dynamic; interactive (A/B testing); creates suckers (Calo); special vulnerable moments
- Mediate - eye-glasses not magnifying glass; phone, facetime, newsfeed
- ERGO: covertly pinpoint vulnerabilities

Digital tech delivering!

- Hidden delivery of interpretation, manipulated reality
- Undermines reliable assumptions: Newsfeed order, search result, recommendations, Uber surge hotspot
- At scale: impersonal personalization (targeting); no “strings”
- ERGO: covertly exploit vulnerabilities

Case studies -- poll

- 1) FB targeting ads to vulnerable teens
- 2) Cambridge Analytica
- 3) Uber
 - a) Bait-and-switch heat map showing potential surge areas of high demand; use *dark pattern* to discourage ending shift, “are you sure you...”; gamify by setting meaningless targets
 - b) teed up new ride before current one ends (cf. Netflix!)
- 4) Amazon
- 5) Netflix
- 6) Behavioral/Targeted Advertising

Case studies

- 1) FB targeting ads to vulnerable teens **YES**
- 2) Cambridge Analytica **YES**
- 3) Uber
 - a) Bait-and-switch heat map showing potential surge areas of high demand; use *dark pattern* to discourage ending shift, “are you sure you...”; gamify by setting meaningless targets **YES**
 - b) teed up new ride before current one ends (cf. Netflix!) **NO**
- 4) Amazon **?**
- 5) Netflix **NO**
- 6) Behavioral/Targeted Advertising **?**

Is digital manipulation unethical?

Yes, it is!

Casualty: Autonomy

Decide and act for reasons that are your own

Reasons may be shaped by culture, politics, history, social milieu

- Manipulative practices work by changing the contexts of behavior – emotions, beliefs, desires
- Trust when we ought not, lower guard
- We lack awareness that we are being targeted, individually as the intersection of groups (consider disinformation campaigns)
- Loss of public sphere; cross-check with others (e.g. web-search)

GEORGETOWN LAW TECHNOLOGY REVIEW

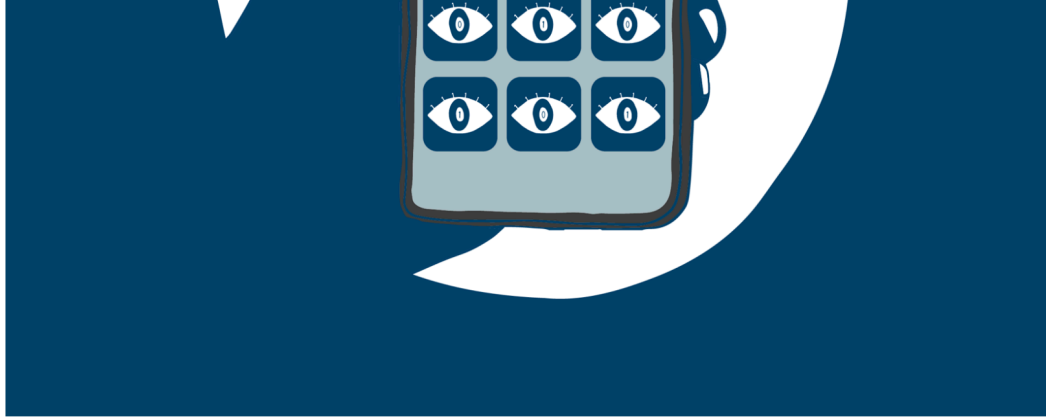
ONLINE MANIPULATION:
HIDDEN INFLUENCES IN A DIGITAL WORLD

Daniel Susser, Beate Roessler, Helen Nissenbaum*

CITE AS: 4 GEO. L. TECH. REV. 1 (2019)

Should digital manipulation be regulated?

Yes, it should!



OUT OF CONTROL

How consumers are exploited by the online advertising industry

14.01.2020

- 3 The harmful effects of profiling and behavioural advertising..... 43**
- 3.1 Consumers do not want to be tracked, but feel powerless..... 43
- 3.2 Power asymmetries and lack of transparency..... 45**
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- 3.8 Reduced trust in the digital economy..... 53
- 3.9 Ad fraud and degradation of online services..... 54



YOU CAN LOG OUT, BUT YOU CAN NEVER LEAVE

How Amazon manipulates consumers to keep them subscribed to Amazon Prime

14.01.2021

Reports of the Norwegian Consumer Council

Regulatory Counter-indications

impossible line-drawing; swimming upstream

- ❖ Unclear harms
- ❖ Speech and other individual liberties
- ❖ Paternalism

Instagram and Facebook are intentionally conditioning you to treat your phone like a drug

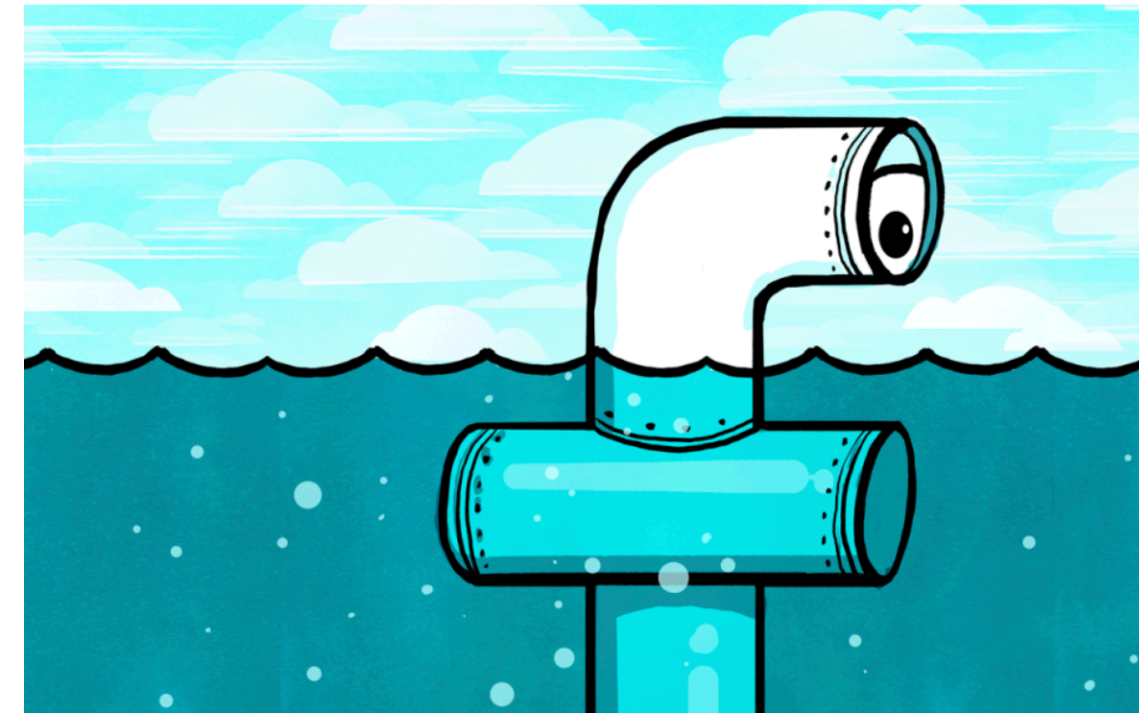


Hannah Schwär and Qayyah Moynihan, Business Insider
Deutschland Apr 5, 2020, 11:54 AM



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The marketing literature has plenty of examples showing that recommendations from a familiar and trusted person are more effective than recommendations from strangers. Why not politics? [Thanks to Prof. Laura Brandimarte for this demonstration.]

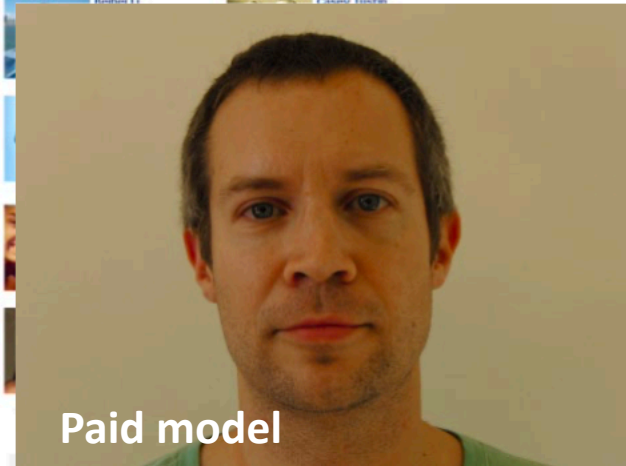
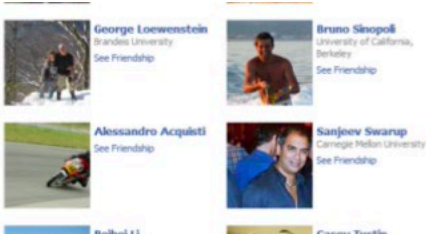
POLICY FORUM | SCIENCE AND DEMOCRACY

Protecting elections from social media manipulation

Sinan Aral^{1,2,3}, Dean Eckles^{1,2}

+ See all authors and affiliations

Science 30 Aug 2019:
Vol. 365, Issue 6456, pp. 858-861
DOI: 10.1126/science.aaw8243



Paid model



Prof. Alessandro Acquisti

Regulatory Counter-Counter-indications:

Or, judicious, targeted regulation is needed

Because

- Loss of autonomy is harmful to individuals and free societies
- Deceptive practice covers more than outright falsehood (dark patterns)
- Regulation is called for under severely asymmetric conditions of knowledge and power
 - E.g. Exploitative labor practices; Exploitative contracts
 - Individual exposure; machines opacity
 - Digital manipulative practices create novel sources of vulnerability
- GDPR + Traditional consumer protection is not enough