

A detailed sketch of a busy office or study environment. The scene is filled with people working at various desks and tables. Some are using laptops, while others are in conversation. The background shows large windows with a grid pattern, suggesting a modern or institutional setting. The overall style is that of a fine-line drawing or sketch, with a muted color palette. The text 'The psychological perspective' is overlaid in the center in a white, sans-serif font.

# The psychological perspective

Răzvan Rughiniș

# Main topics

1. Introduction. Why care about privacy?
2. Digital profiles
3. The ethical perspective: Fairness, harm & autonomy
4. The economic perspective: Free markets & competition
5. The psychological perspective: Cognition & emotions
6. The economic perspective: business models and gig economy
7. The sociological perspective: Communities & ideologies
8. Role: Users. Curation & Privacy-enhancing tools
9. Role: Experts. Whistleblowing & Collective action
10. Role: Policymakers. GDPR & Single Digital Market

# Take away – Course 1

- Why?
  - Privacy is not cake: Tech is downgrading human autonomy
  - Why now? Emerging policies, investigations, NGO collective action
  - Who cares?
- Sensemaking: Four perspectives
  - Ethical | Economic | Psychological | Sociological
- Taking action: Three roles
  - User | Expert | Policy-maker
- Privacy = choice in the new world order
  - 4<sup>th</sup> Industrial Revolution
  - Digital infrastructures & Platform capitalism
  - Surveillance capitalism

# Take away – Course 2

- Illusion of control: Data vs. metadata
- Data flows are floods, not trickles
  - Legal harvesting at scale
  - Exposures & leaks
  - Data & China
- Digital profiles
- So what?
  - We are mined for time and attention
  - We are gently nudged in thought and action
  - We are replaced: automation
- Taking action
  - Critical technology analysis
  - Regulating tech, making tech & using tech

# Take away – Course 3

## 1. Ethical reflection

- Norms, principles, values
- Digital relativism
- Learned helplessness

## 2. Ethical analysis

- Highlighting the values at stake: fairness, harm, autonomy
- Ethical vs. impact analysis: economics, psychology and sociology

## 3. Examples of ethical analysis

- Privacy and fairness: **platform capitalism**
- Privacy and harm: addiction to smartphones and social media, **gig economy**
- Privacy and autonomy: **surveillance capitalism**, misinformation

# Take away – Course 4

1. Free markets as moral justification and fiction
  - How free are digital markets?
  - Unequal distribution of rewards
  - Asymmetric access to information
  - ESG metrics
2. Platform capitalism
  - Unfair competitive advantages, information asymmetry
  - Harm to competitors (companies and individuals)
  - Restricted autonomy for competitors and users

# Ethical vs. impact analysis

Ethics \ Science	Economics	Psychology	Sociology
<b>Fairness</b>	Platform capitalism: unfair competitive advantages (information asymmetry) Gig & ghost economies: unfair distribution of rewards	Cognition: <b>unequally enhanced vs. diminished cognition</b> Emotions: <b>unequal burdens of addiction</b>	Algorithmic biases Unequal access to digitalization
<b>Harm</b>	Platform capitalism: harm to competitors Gig & ghost economies: harm to workers	Cognition: <b>Shallow thinking</b> Emotions: <b>Self-harm related to social media consumption; privacy leaks and harassment</b>	Polarization Mistrust in democracy and expertise Decrease in social capital & public goods
<b>Autonomy</b>	Platform capitalism: monopolistic reduction of free choice Surveillance capitalism: nudging through prediction products	Cognition: <b>Dependence on tech for mental operations</b> Emotions: <b>Addiction to social media and digital stimuli</b>	Filter bubbles & misinformation machines: decreased control on information flows

# Outline – Course 5

1. Cognition: Augmented vs. diminished?
  - Extended mind & distributed cognition (DCog)
  - Wisdom of the crowds vs. Filter bubbles
  - Ethical issues
    - Fairness: Unequal quality of engagement
    - Harms: Shallow thinking
    - Autonomy: dependence on tech; nudge & dark patterns
2. Emotions
  - Extended emotions & emotional contagion
  - Addiction
    - Nomophobia
    - Variable reinforcement schedules & Hook cycles
  - Ethical issues
    - Harms: harassment, mental health, self-harm
    - Autonomy: addiction & prediction
3. The extended self



A top-down view of a person's hands working at a laptop on a white wooden desk. The person's left hand is on the keyboard, and their right hand is holding a yellow sticky note. To the left of the laptop is a white cup of coffee with a lid and a small plate with two round, reddish-brown pastries. To the right is a white smartphone with a colorful home screen, a spiral-bound notebook, and a pencil. In the top right corner, there are some white flowers. The text "1. Cognition" is overlaid in the center of the image.

# 1. Cognition

# No more secrets

- “The data obtained and analyzed by *The Pillar* conveys mobile app data signals during two 26-week periods, the first in 2018 and the second in 2019 and 2020. The data was obtained from a data vendor and authenticated by an independent data consulting firm contracted by *The Pillar*.”
- “*The Pillar* correlated a unique mobile device to Burrill when it was used consistently from 2018 until at least 2020 from the USCCB staff residence and headquarters, from meetings at which Burrill was in attendance, and was also used on numerous occasions at Burrill’s family lake house, near the residences of Burrill’s family members, and at a Wisconsin apartment in Burrill’s hometown, at which Burrill himself has been listed as a resident.”

## Pillar Investigates: USCCB gen sec Burrill resigns after sexual misconduct allegations

A Pillar Investigation

The Pillar Jul 20 ❤️ 207

Monsignor Jeffrey Burrill, former general secretary of the U.S. bishops’ conference, announced his resignation Tuesday, after *The Pillar* found evidence the priest engaged in serial sexual misconduct, while he held a critical oversight role in the Catholic Church’s response to the recent spate of sexual abuse and misconduct scandals.





Rohingya fleeing Myanmar (Burma) to Bangladesh in 2017, after genocidal attacks

# Rohingya minority

- Muslim minority in Burma / Myanmar [[Wiki](#)]
- In 2017, more than 750.000 fled to Bangladesh
- [Reuters](#): Genocidal hate fueled by Facebook
- No moderation in Burmese



# Hate speech

- In Myanmar, Fb is the Internet, but...
  - In 2015, only two Fb moderators spoke Burmese
  - In 2018, there was no Fb employee in Myanmar
- More than 1000 hate posts identified by [Reuters](#) in 2018 investigation:
- “The poisonous posts call the Rohingya or other Muslims dogs, maggots and rapists, suggest they be fed to pigs, and urge they be shot or exterminated. The material also includes crudely pornographic anti-Muslim images.”

အကြမ်းဖက် ခွေးကုလားတွေ မြန်မြန်  
ရှာဆုံးပီး အသေဆိုးနဲ့ သေပါစေ

**“May the Rakhine people ... and all Myanmar citizens be free from the dangers of sons of a dog, grandchildren of a pig kalar, and rapists”**

September 2013

**“Just feed them to the pigs”**

October 2016

**“If it's kalar, get rid of the whole race”**

October 2016



Facebook's language gaps weaken screening of hate

By ISABEL DEBRE and FARES AKRAM

October 26, 2021


# Moderation in Arabic

- Multiple dialects
- Failure to moderate algorithmically or with humans
- Erroneous flags – **more than 77% of “terrorist” flags are mistaken!**
- “Scores of Palestinian journalists and activists have had their accounts deleted. Archives of the Syrian civil war have disappeared. And a vast vocabulary of everyday words have become off-limits to speakers of Arabic, Facebook’s third-most common language with millions of users worldwide.” ([Associated Press](#) reporting on Fb Files in WSJ)

# Cognition

- Cognition = process of organizing and using information
  - **acquiring** (perception)
  - **selecting** (attention)
  - **representing** (understanding)
  - **retaining** information (memory)
  - **using** it to guide behavior: reasoning and motor coordination





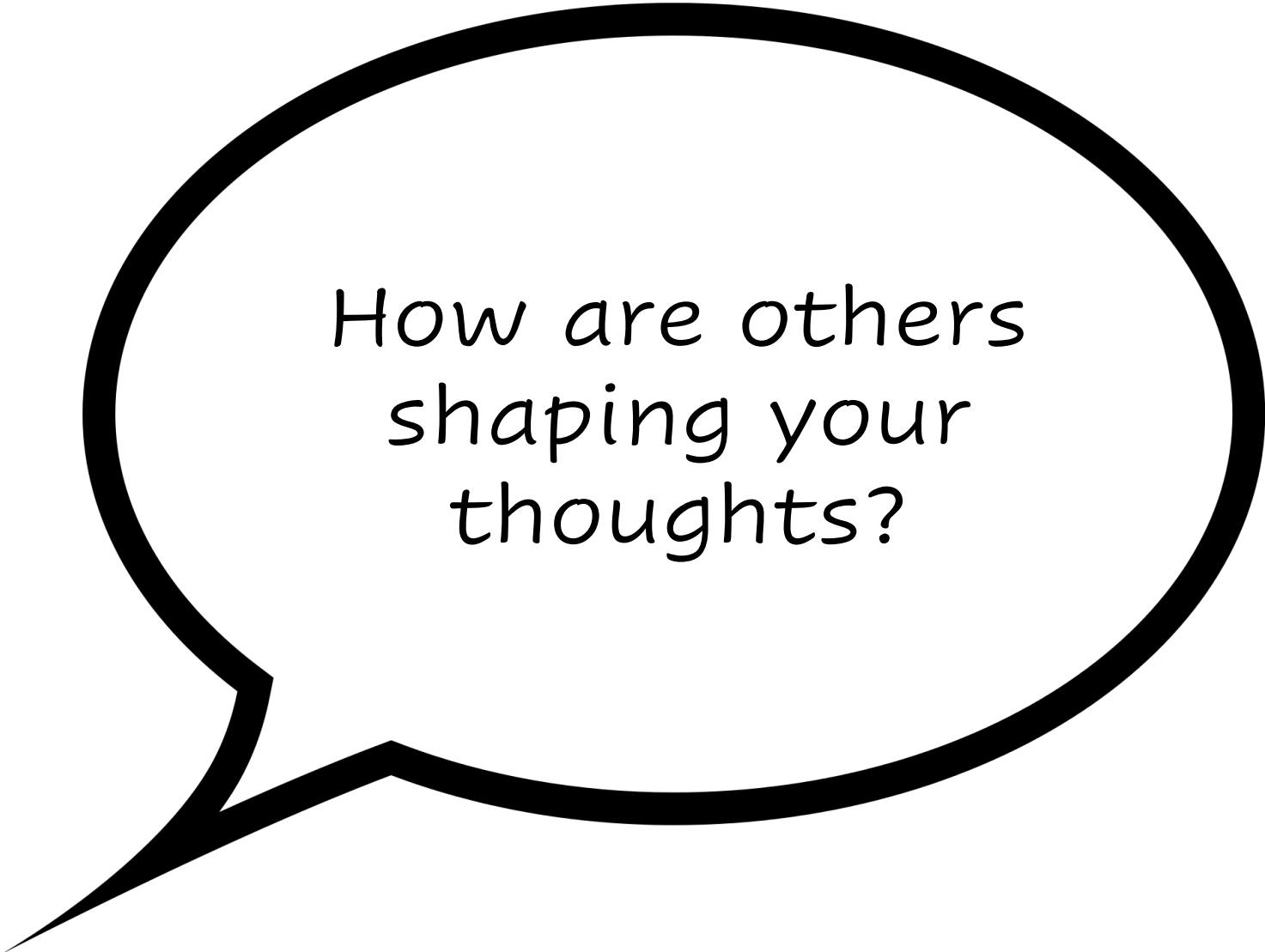
How is your phone  
helping you think?



# The extended mind

- Andy Clark & David Chalmers ([Wiki](#)), "[The extended mind](#)" (1998)
- The mind is a coupled system of consciousness & external objects
- Memory, cognition, imagination are extended through:
  - Agendas & calendars
  - Maps
  - Pen & paper notes, paint & canvas
  - Post-its
  - Calculators
  - Computers





How are others  
shaping your  
thoughts?

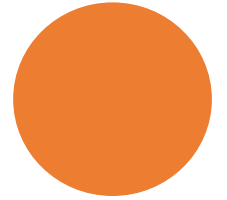
# Distributed cognition

- Edwin Hutchins, 2018, [Distributed cognition \(Wiki\)](#)
  - E. Hutchins, 1995, “Cognition in the wild”
- Cognitive processes are distributed...
  - Environmentally: Among mental and external objects (extended mind)
  - Socially: Among members in a team or group
    - Division of cognitive work
  - In time: past beliefs shape present beliefs



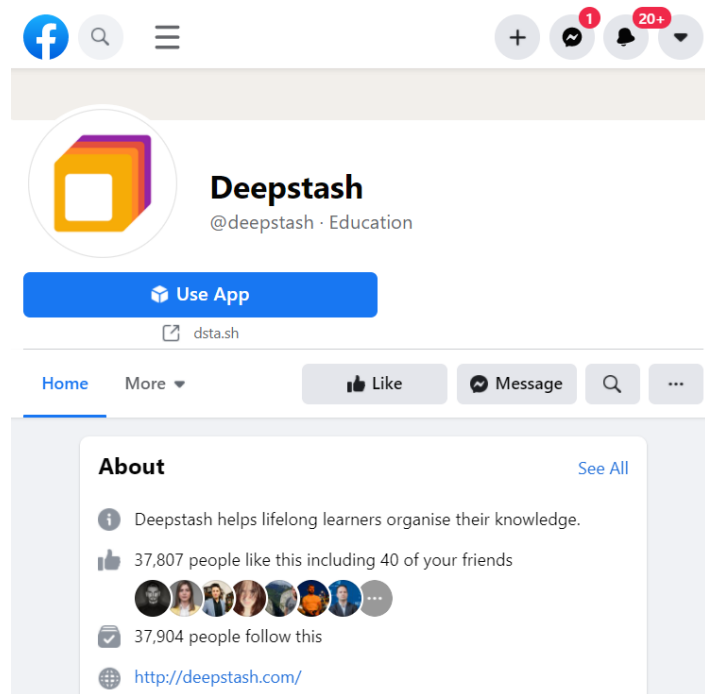
# Wisdom of the crowds

- Francis Galton, 1907, [Vox populi \(Wiki\)](#)
  - 800 people participated in a contest to estimate the weight of a slaughtered ox
  - The median guess, 1207 pounds, was accurate within 1% of the true weight (1198 pounds)
- Usefulness
  - Estimating correct answers (if any)
  - Surveying broad spaces
  - Determining relevance
- Massive collaboration
  - Q&A platforms
  - News ranking
  - Wikipedia



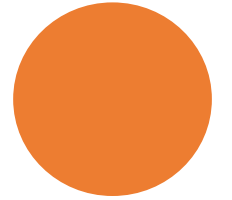
# How is the Internet shaping our mind?

- Search
- Social media
- Cognitive apps



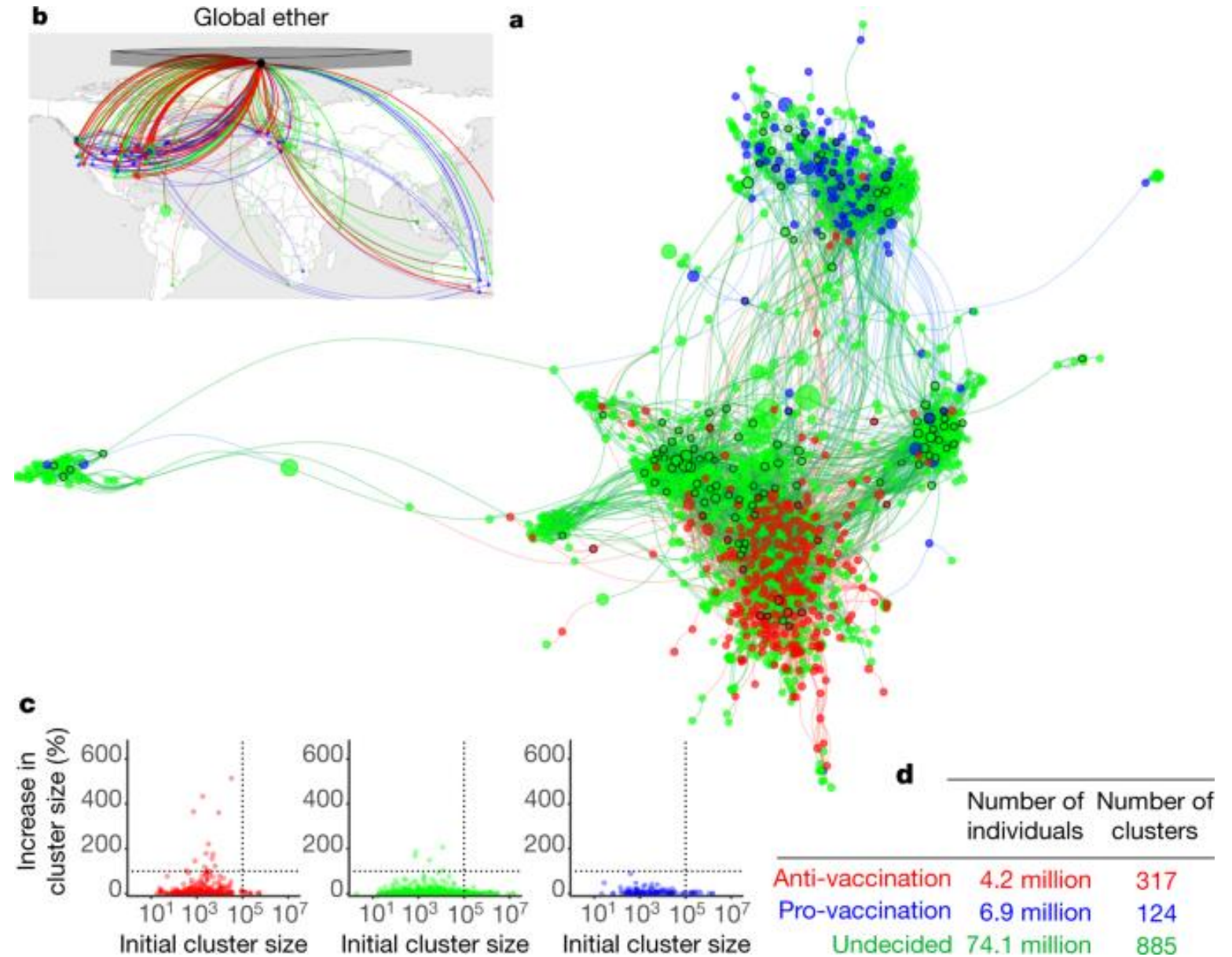
# Filter bubbles

- “[Echo chambers](#)” in mass media
- Eli Pariser, 2011, [Beware online filter bubbles \(Wiki\)](#)
  - Personalized search
  - Personalized news feeds
  - Personalized recommendations
- Enhanced by communities of thought
  - Like with like



Johnson et al., The online competition between pro- and anti-vaccination views

[Nature](#), May 2020



# Ethical issues: **Fairness**

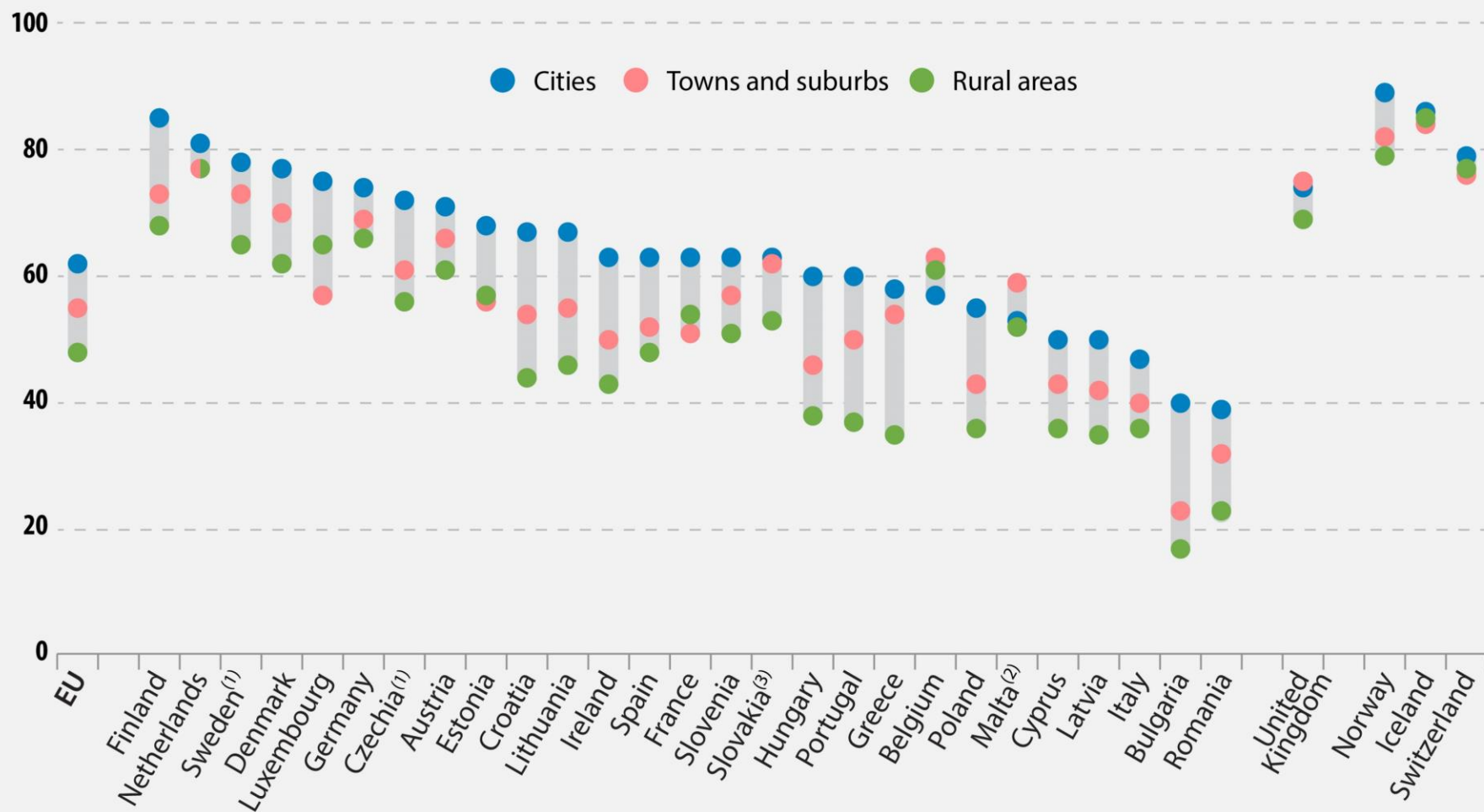
- How much is tech extending our minds?
  - Across social strata
  - Across professions
  - Across generations





# People with basic or above basic digital skills, 2019

(%, share of people aged 16-74; during the 12 months preceding the survey, by degree of urbanisation)



Note: ranked on cities

(1) Low reliability

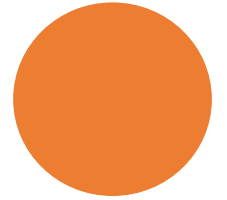
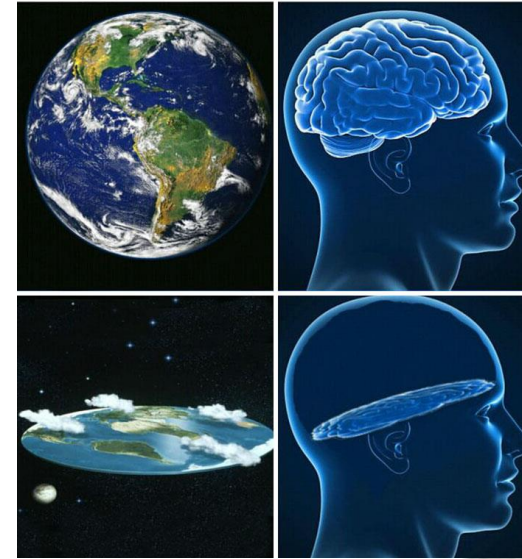
(2) Rural areas: low reliability

(3) 2017 data instead of 2019

Source: [Eurostat](https://ec.europa.eu/eurostat)

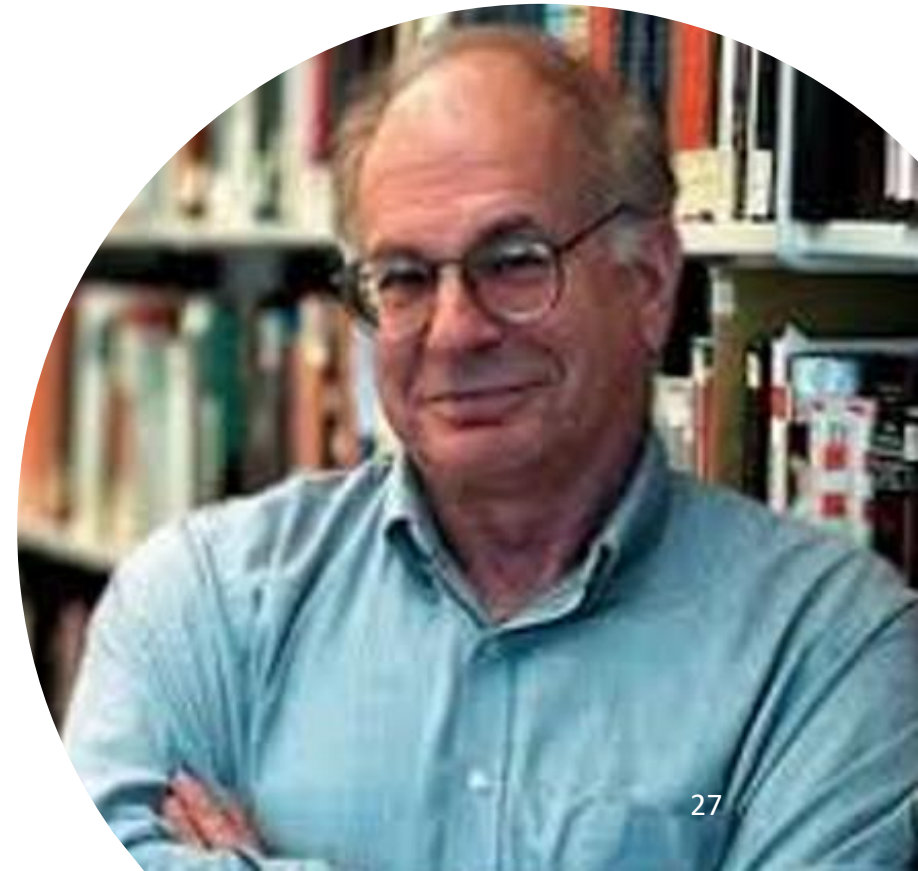
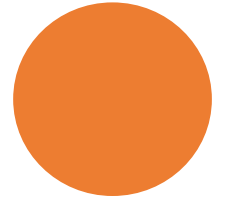
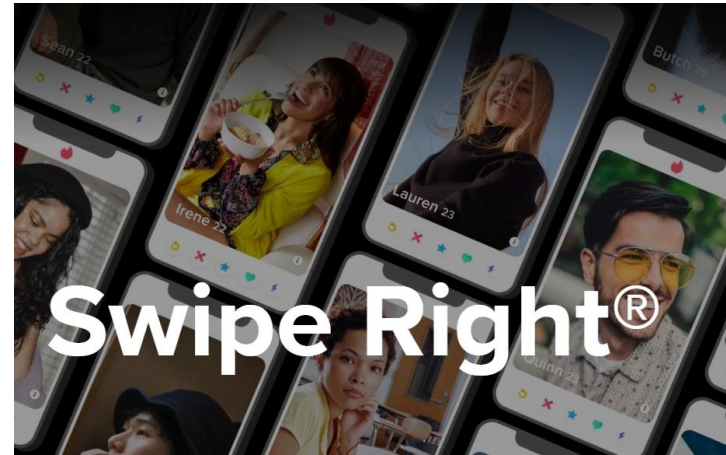
# Ethical issues: Harm

- Journalistic perspective
- Nicholas Carr, 2008, [Is Google Making Us Stupid?](#)
  - Reading & Concentration
  - Delegating cognition
  - Neuroplasticity
- Nicholas Carr, 2010, "The Shallows"



# Thinking fast and slow

- Psychological perspective
- Daniel Kahneman, 2011, “Thinking fast and slow” ([Wiki](#))
- Biases & heuristics



# Interruptions & Multi-tasking

- Most of us are not true multi-taskers
- So-called “multi-taskers” fare worse at concentration & memory ([Gorlick](#) 2009)
- Switching tasks is expensive ([Brueck](#) 2019)
  - Makes us lose focus & time
  - Stimulates dopamine
  - Enhances flight or fight reactions and stress

AUGUST 24, 2009

## Media multitaskers pay mental price, Stanford study shows

Think you can talk on the phone, send an instant message and read your e-mail all at once? Stanford researchers say even trying may impair your cognitive control.



BY ADAM GORLICK

Attention, multitaskers (if you can pay attention, that is): Your brain may be in trouble.

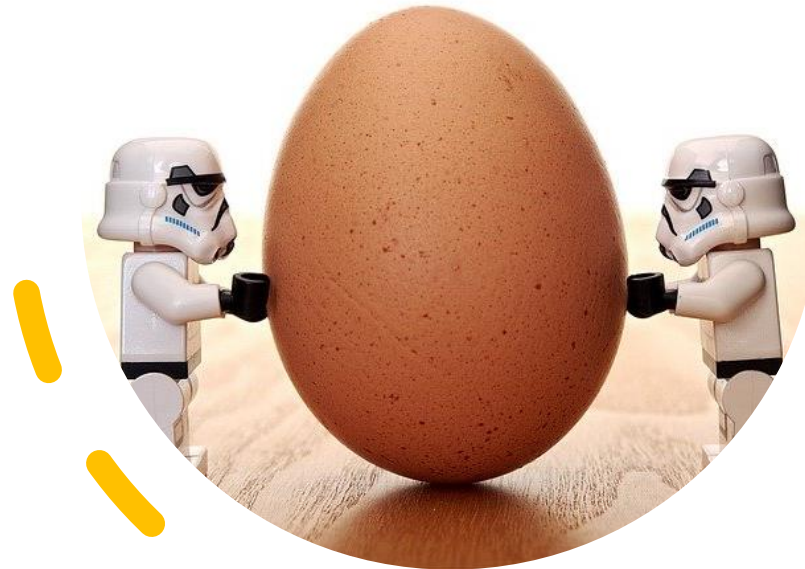
# Ethical issues: **Autonomy**

- Extended mind vs. dependence
  - Text vs voice
  - Reading maps
  - Mental math
- Tech solutionism
  - An app for global peace?
- Dark patterns & nudging



# Nudge

- Richard Thaler, winner of the Nobel Prize for Economics (2017)
- Cass Sunstein, legal scholar
- A non-intrusive incentive



Richard Thaler

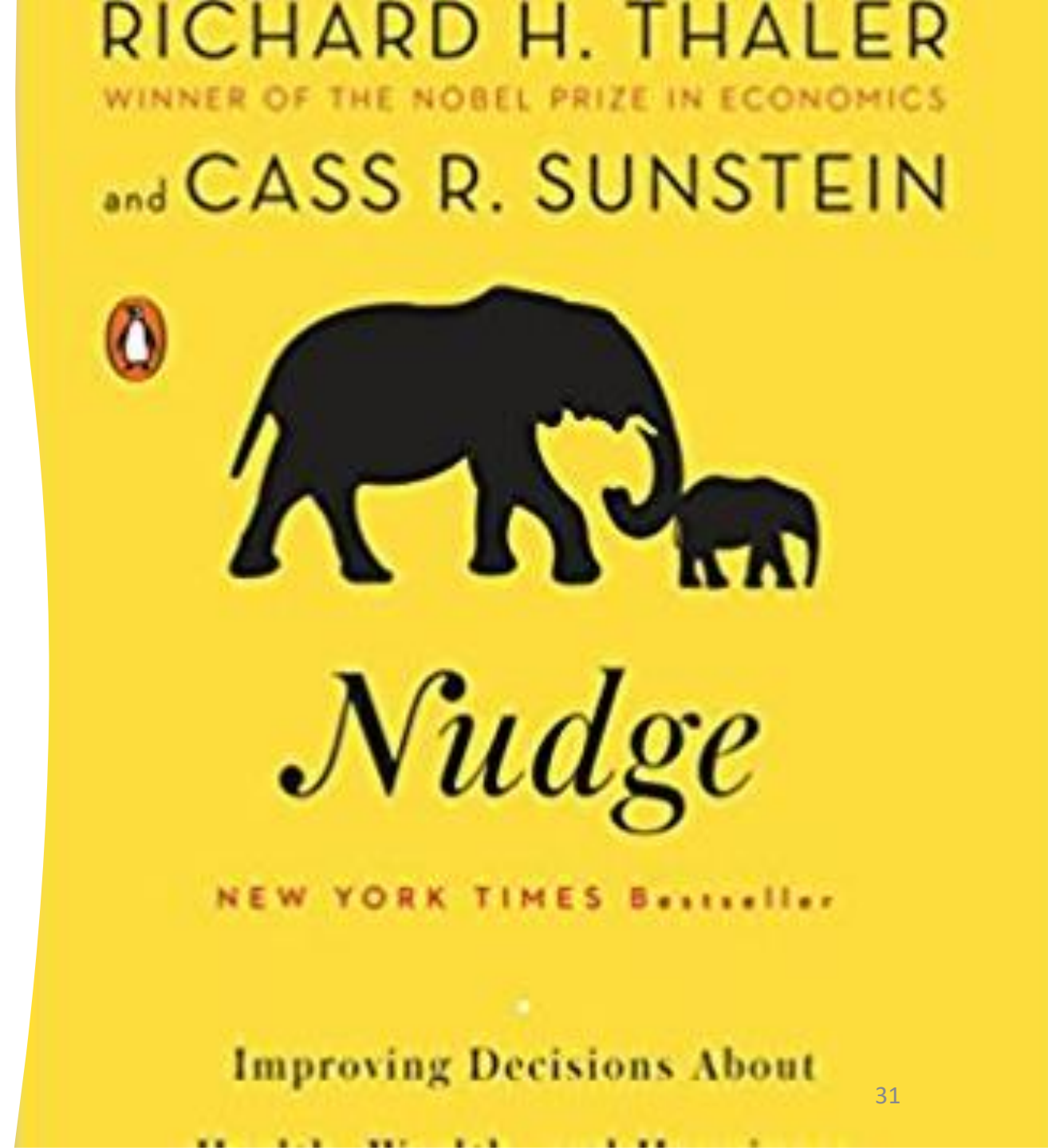


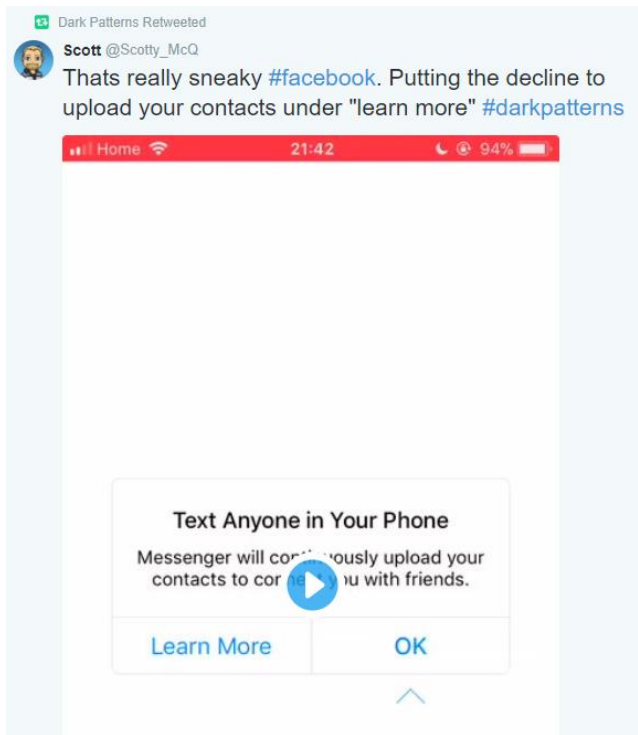
Cass Sunstein

# Nudge

- “Any aspect of the **choice architecture** that alters people's behavior in a **predictable** way”
- “Without forbidding any options or significantly changing their economic incentives.
- “The intervention must be **easy and cheap to avoid.**”

(Thaler & Sunstein 2008)





# DARK PATTERNS

## WHAT ARE DARK PATTERNS?

Dark Patterns are tricks used in websites and apps that make you buy or subscribe for things that you didn't mean to. The purpose of this site is to spread awareness and to shame companies that use them.



## HOW DO DARK PATTERNS WORK?

When you use the web, you don't read every word on every page - you skip and make assumptions. If a company wants to trick you into doing something they can take advantage of this by making a page look like it is saying one thing when it is in fact saying another. You can defend yourself by learning about Dark Patterns on this site.



## TYPES OF DARK PATTERN

### Bait and Switch ›

You set out to do one thing, but a different, undesirable thing happens instead.

### Disguised Ads ›

Adverts that are disguised as other kinds of content or navigation, in order to get you to click on them.

### Forced Continuity ›

When your free trial with a service comes to an end and your credit card silently starts getting charged without any warning. In some cases this is made even worse by making it difficult to cancel the membership.

### Friend Spam ›

The product asks for your email or social media permissions under the pretence it will be used for a desirable outcome (e.g. finding friends), but then spams all your contacts in a message that claims to be from you.

### Hidden Costs ›

You get to the last step of the checkout process, only to discover some unexpected charges have appeared, e.g. delivery charges, tax, etc.

### Misdirection ›

The design purposefully focuses your attention on one thing in order to distract you attention from another.

### Price Comparison Prevention ›

The retailer makes it hard for you to compare the price of an item with another item, so you cannot make an informed decision.

### Privacy Zuckering ›

You are tricked into publicly sharing more information about yourself than you really intended to. Named after Facebook CEO Mark Zuckerberg.

### Roach Motel ›

The design makes it very easy for you to get into a certain situation, but then makes it hard for you to get out of it (e.g. a subscription).

### Sneak into Basket ›

You attempt to purchase something, but somewhere in the purchasing journey the site sneaks an additional item into your basket, often through the use of an opt-out radio button or checkbox on a prior page.

### Trick Questions ›

You respond to a question, which, when glanced upon quickly appears to ask one thing, but if read carefully, asks another thing entirely.

# Anchoring

Prices are not cheap or expensive

Prices are **relative**

	Premium	Standard	Essentials	Free
PLAN	Advanced features for pros who need more customization.	Better insights for growing businesses that want more customers.	Must-have features for email senders who want added support.	All the basics for businesses that are just getting started.
PRICING	Starting at <b>\$299<sup>00</sup></b> a month <a href="#">Select</a> <a href="#">Calculate your price</a>	Starting at <b>\$14<sup>99</sup></b> a month <a href="#">Select</a> <a href="#">Calculate your price</a>	Starting at <b>\$9<sup>99</sup></b> a month <a href="#">Select</a> <a href="#">Calculate your price</a>	<b>\$0</b> <a href="#">Get Started</a>
TOP FEATURES	Everything in Standard, plus: Advanced segmentation Multivariate testing Unlimited seats and role-based access Phone support	Everything in Essentials, plus: Automation series Retargeting ads Custom templates Advanced audience insights	Everything in Free, plus: All email templates A/B testing Custom branding 24/7 award-winning support	7 marketing channels 1-click automations Basic templates Marketing CRM

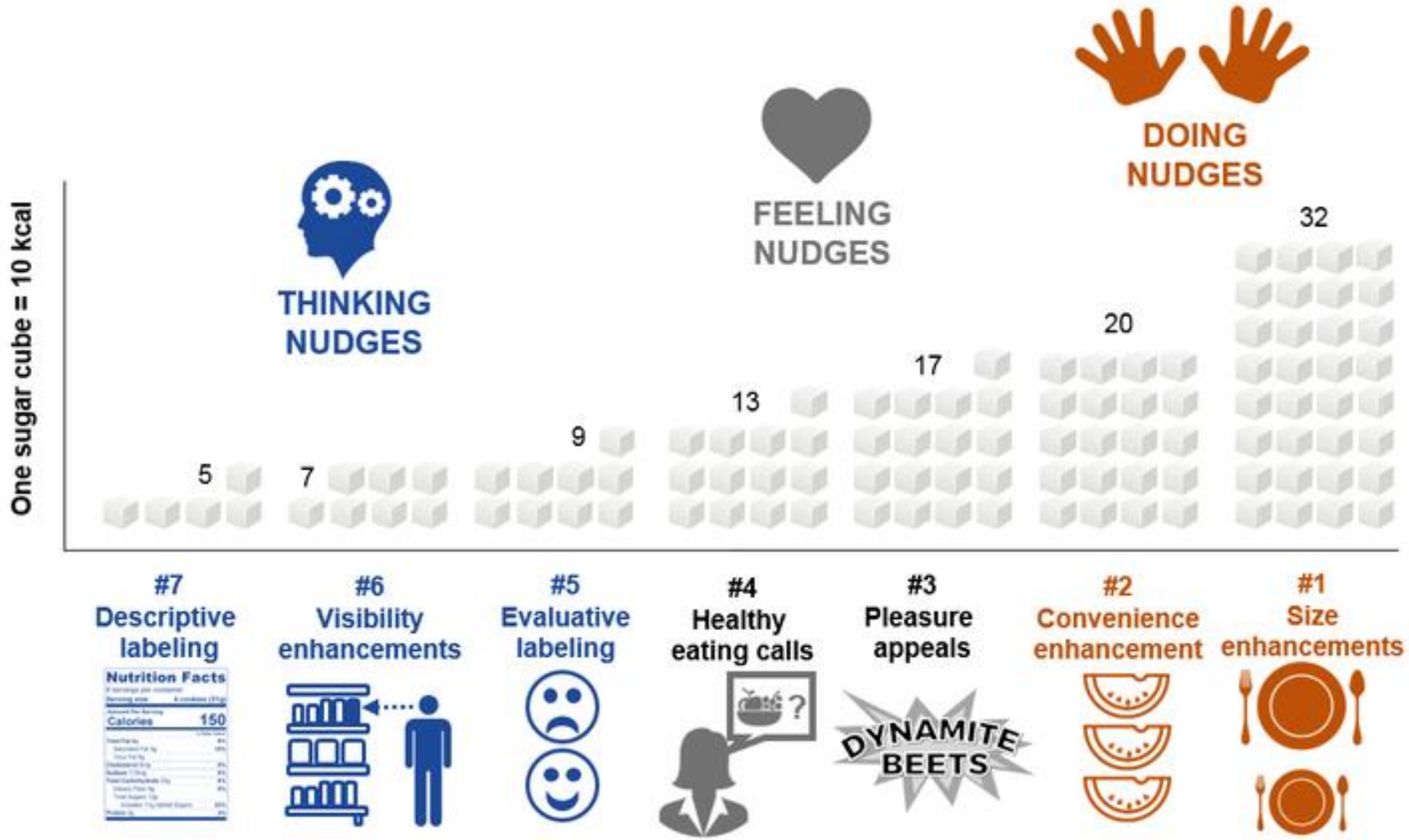
# Anchoring tips

- “Highlight the **differences** not the similarities in offerings
- List **highest to lowest** prices from left to right or top to bottom
- Create a middle-of-the-road, **best deal** offering
- The cheapest offering should be **decent** but not overly attractive”

([Bradley Gauthier](#))

	Max \$159/month	Business \$59/month	Our Most Popular Plan Professional \$29/month	Starter \$14/month	Free \$0/month
Forms	1,000	100	20	5	3
Fields/Form	Unlimited	Unlimited	200	50	10
Saved Entries/Form	100,000	10,000	2,000	500	50
File Upload Storage	10GB	2GB	1GB	500MB	—
Style Templates	100	10	5	1	—
Users	25	10	5	1	1
	Sign Up >>	Sign Up >>	Sign Up >>	Sign Up >>	Sign Up >>

# Expected reduction in daily calorie intake



# Digital tools & Internet as cognitive enhancement

## Pros


- Extended perception
- Extended computation
- Extended memory
  - Search
- Distributed thinking in collectives, wikis, groups
  - Wisdom of the crowds

## Cons

- Unequal availability
- Shallow thinking
  - Cognitive overload
  - Misinformation
  - Filter bubbles
  - Echo chambers
- Nudging & dark patterns

A young boy with short brown hair and wide, surprised eyes is holding a black video game controller. He is wearing a dark grey long-sleeved shirt with a colorful circular logo on the chest and white text on the sleeves. The background is a plain, light grey color.

## 2. Emotions



How do you feel  
when you are on  
your mobile?

# The Facebook Files

- Internal documents leaked by Frances Haugen to Wall Street Journal
- Internal research shows how Instagram affects teens' mental health:
  - “**14% of boys** in the U.S. said Instagram made them feel worse about themselves” ([CNBC](#))
  - “We [Instagram] make body image issues worse for **one in three** teen girls” ([The Guardian](#))
    - “Among teens who reported suicidal thoughts, 13% of British users and 6% of American users traced the desire to kill themselves to Instagram”

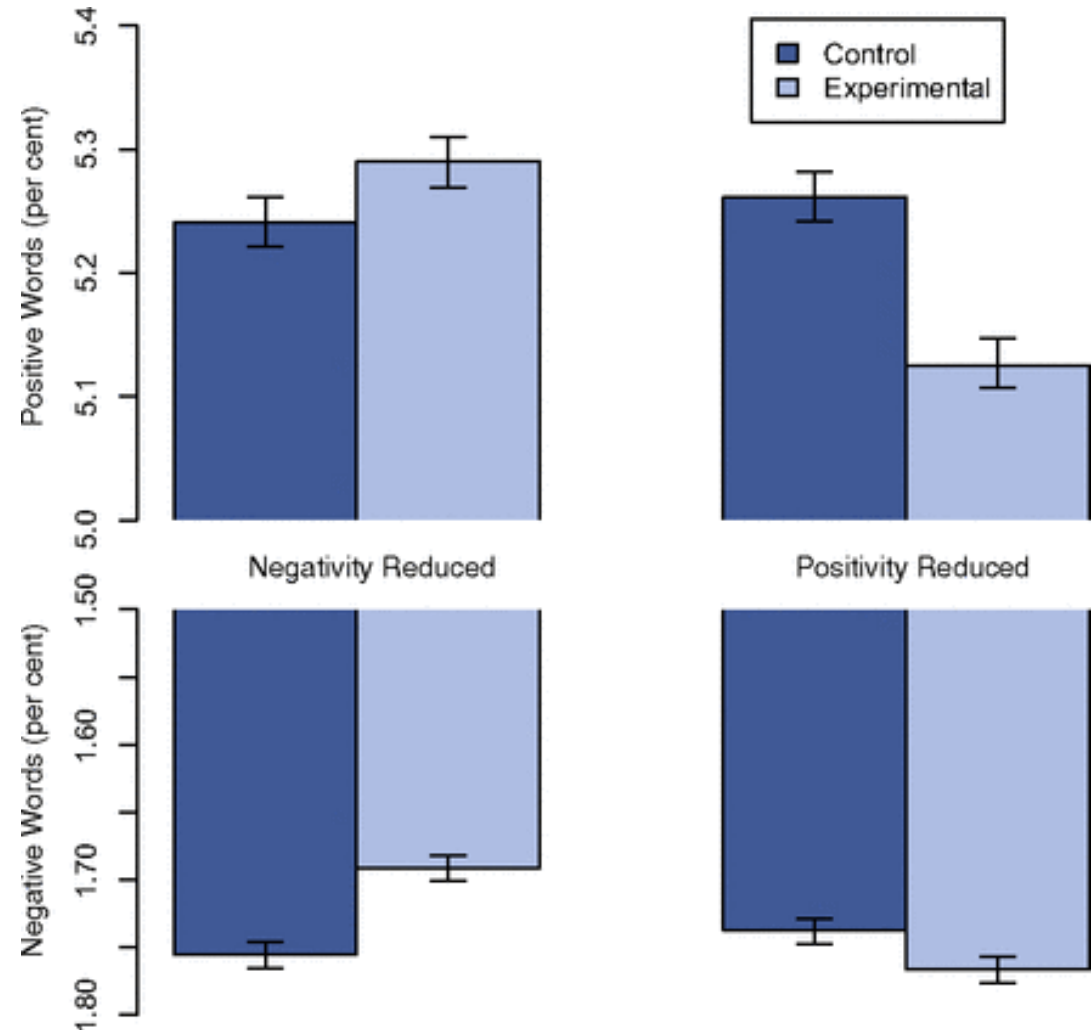




# The extended emotions

- Emotional contagion
- The infamous [Facebook experiment](#)
  - Feed manipulation
  - [No user consent](#)

“We show, via a massive ( $N = 689,003$ ) experiment on Facebook, that emotional states can be transferred to others via emotional contagion, leading people to experience the same emotions without their awareness.”



# Ethical issues

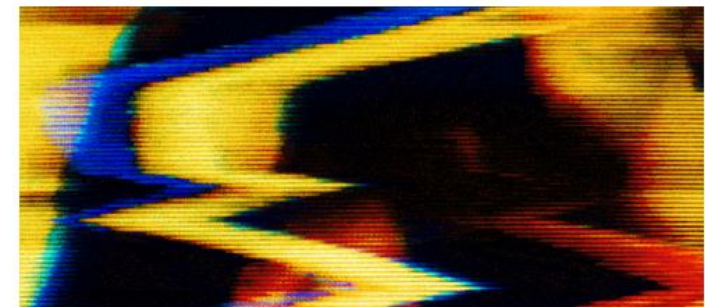
- Autonomy
  - Addiction
  - Prediction
    - “Google moments” & Monetizable despair
    - A/B testing: manipulation & discrimination, vs. consent
- Harm
  - Online harassment
  - Mental health issues & self-harm

RONI JACOBSON

BACKCHANNEL 02.29.2016 12:00 AM

## I've Had a Cyberstalker Since I Was 12

After 14 years I finally reported him. In the eyes of the law, my biggest mistake was not fearing him more.



# Autonomy: Addiction

REASON #153 TO STEP UP YOUR BUSINESS GAME ONLINE

## NOMOPHOBIA

(NO MOBILE PHONE PHOBIA)

*The irrational fear of being without your mobile phone*

80

The average smartphone user checks their device 80 times a day.



2,617

The average user will tap, swipe, & click their phone 2,617 times a day.



The average time spent on smart phones is 2 hours 15 minutes a day.



80% of smartphone users check their phones within 1 hour of waking up. 62% do so immediately.



62% would rather go without chocolate for a week than lose their phone for a day. 40% would rather lose their voice for a day.



75% of all users bring their phones to the bathroom and 12% of people use their phones in the shower.



20% of people would rather go shoeless for a week than temporarily release their phones.



11% of smartphone users would rather leave home without their pants than their phone.

STRATEGUS

<https://strategus.co.nz>

# Addiction: Notifications and hormones

- Nomophobia: phone separation anxiety ([Wiki](#))
- “Platforms like Facebook, Snapchat, and Instagram leverage the very same neural circuitry used by slot machines and cocaine” ([Haynes 2018](#))



# Addiction: variable reinforcement schedules



**Continuous reinforcement schedule**  
Fast learning, quick change



**Variable reinforcement schedule**  
Slower learning, persistent attempts ([Lim, 2020](#))

# Facebook is a “beautiful slot machine”

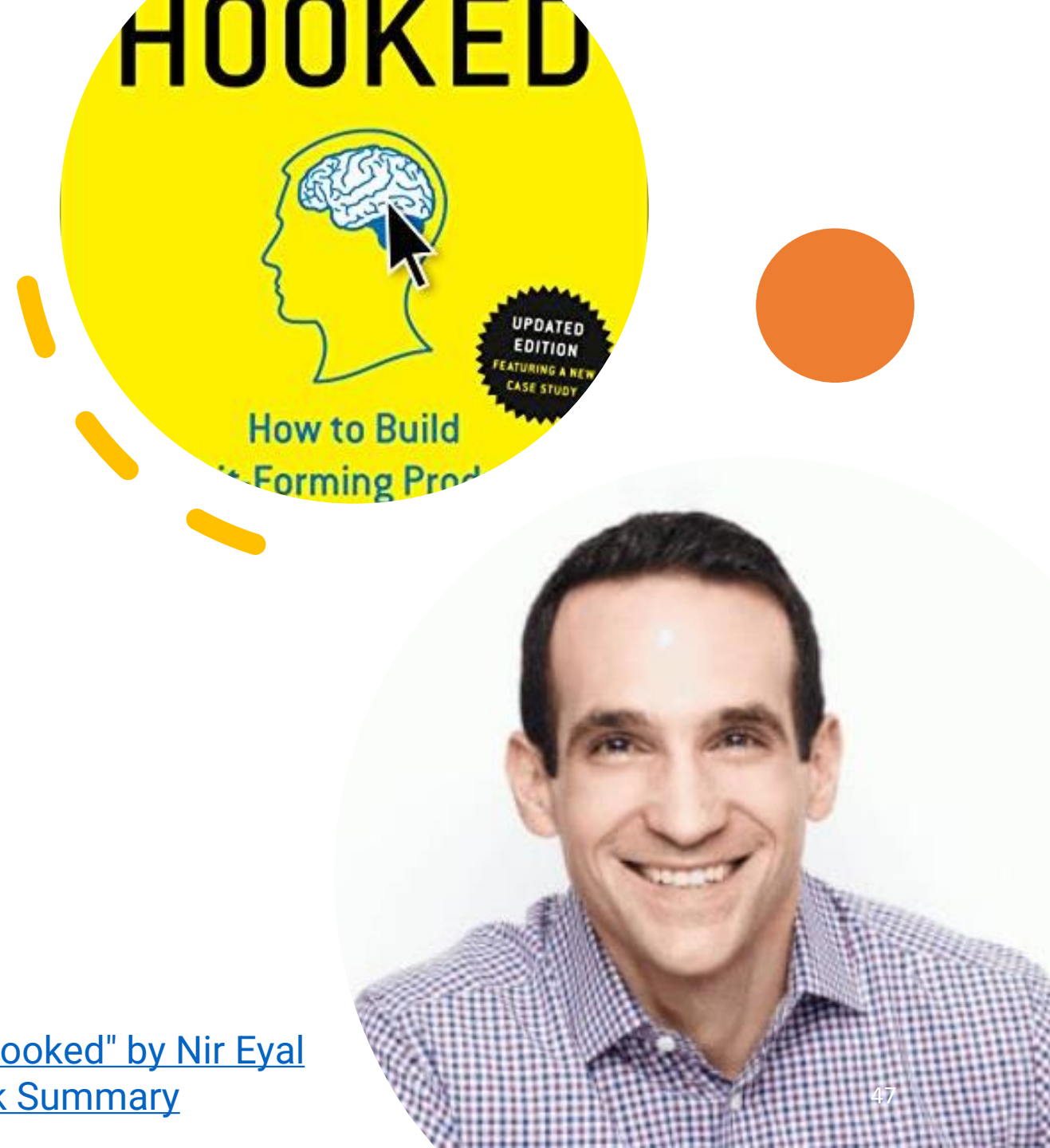
- Variable rewards
- Animations similar to slot machines
- “Chasing” the big win (in likes shares etc) despite losses

([Chris Illuk, 2017](#))



# Addiction: Hook cycle

- Nir Eyal, 2013. Hooked. How to build habit-forming products
- Cycle of habit forming
  1. **Trigger**
    - External
    - Internal
  2. **Simple action**
    - Eliminate complications
  3. **Variable reward**
  4. **Small investment**
    - The IKEA effect



See: ["Hooked" by Nir Eyal – Book Summary](#)

# Pervasive gambling – so what?

- Gambling in Australia – a case study
  - Australia has 20% of the world's poker machines, known colloquially as the "pokies"
  - Annual spending cca AUD 1300 (EUR 800)
  - 200.000 + heavy problem gamblers
  - 400.000 + problem gamblers
  - Ripple effects on family, work

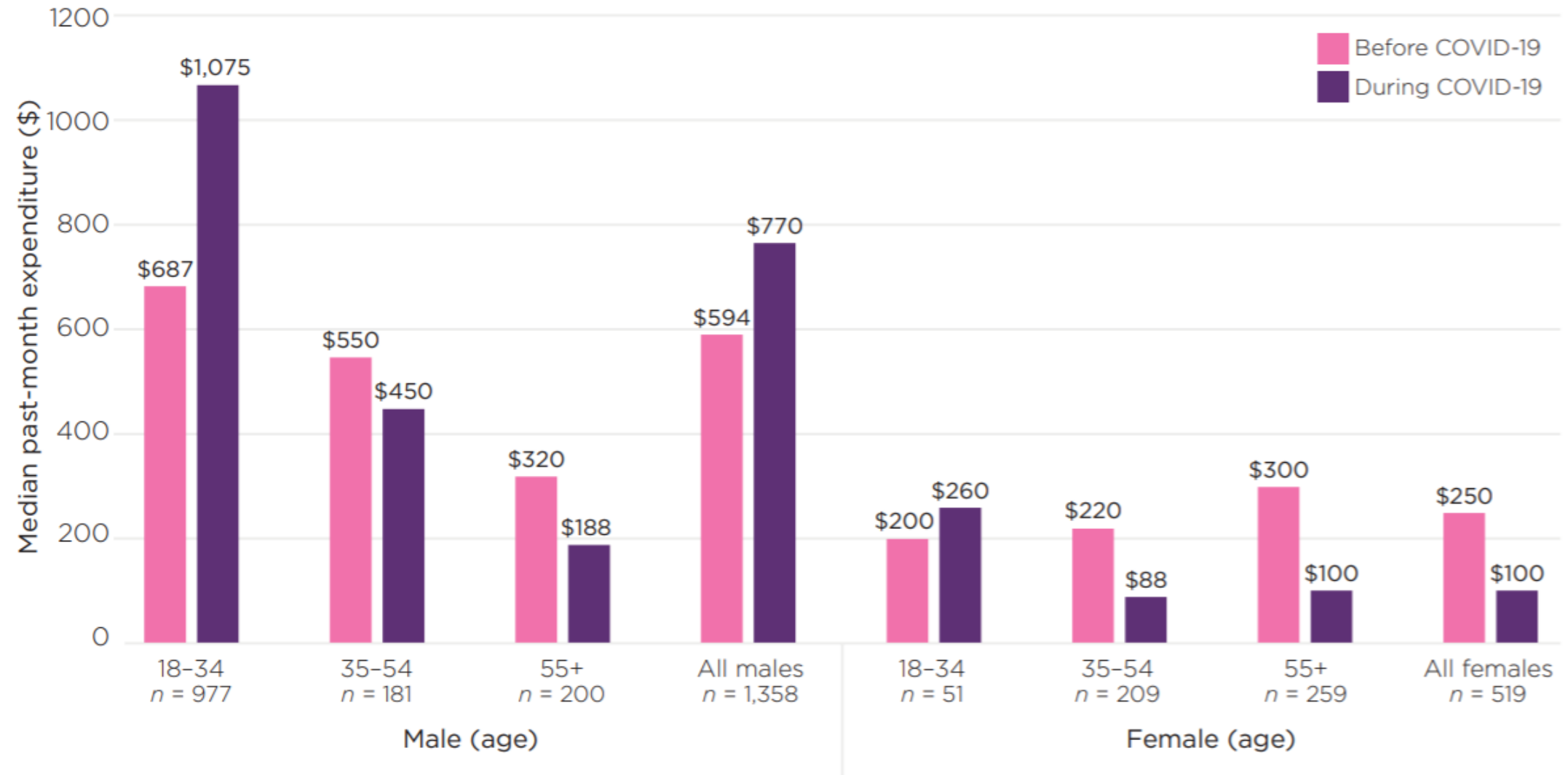
[BBC 2017](#)



[Source](#)

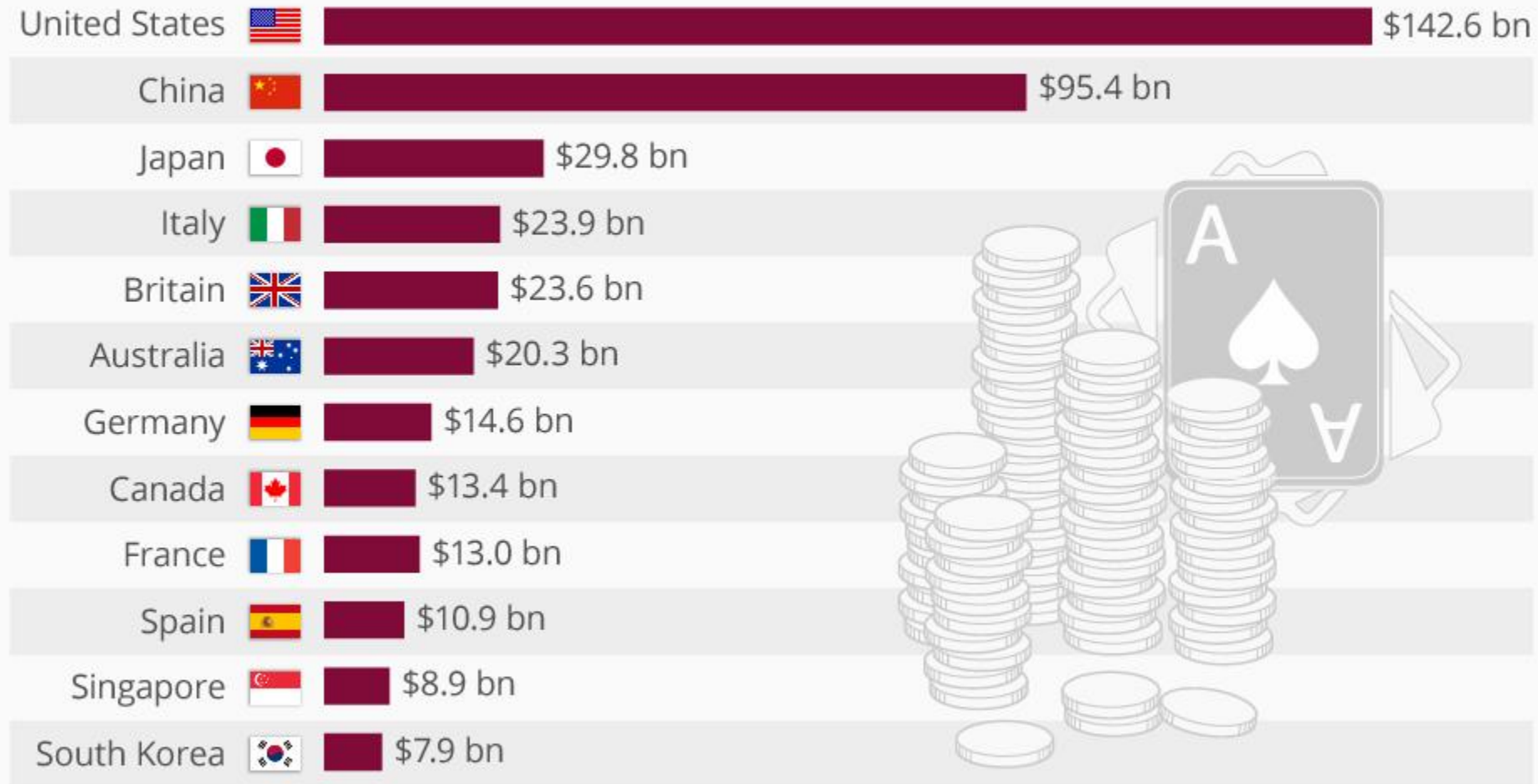


**Figure 3:** Median past-month expenditure (\$) before and during COVID-19



# The Countries With The Biggest Annual Gambling Losses

Largest gambling losses by country in 2014 (in billion U.S. dollars)



# Autonomy: Prediction

## How Google Marketers Exploit Your Discomfort

We're trained to serve ads in your moments of quiet desperation



Patrick Berlinquette [Follow](#)

Dec 13, 2018 · 7 min read ★

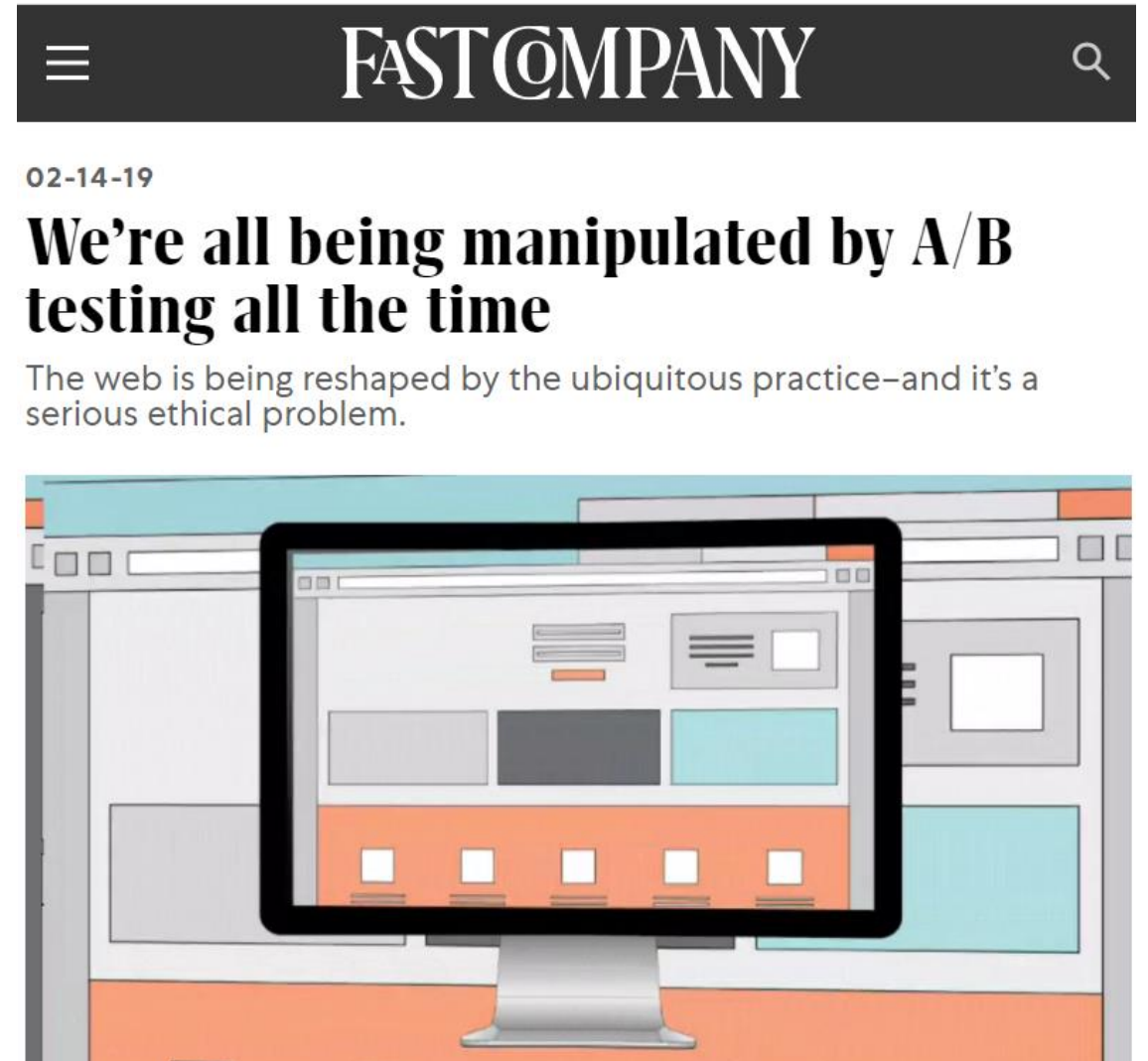


**T**oday, three out of four smartphone owners turn to Google first to address their immediate needs. As a result, Google marketers like me must survive on our ability to play on your impatience and impulsiveness when you're using a mobile device. We must be there to serve you an ad in your “micro-moment,” the second you decide to use your phone to alleviate the discomfort of not having “it” now—whether “it” is a last-minute sale, directions to a soon-closing store, information about a fast-filling class, or anything else.

Medium  
Dec 13, 2018

# Prediction: A/B testing

- Companies run constant A/B tests to optimize design, pricing etc ([FastCompany](#) 2019)
- “leveraging the worst impulses”  
Issues:
  - No user consent for being part of experiments
  - Bias: gendered & racialized content, pricing
  - Sensationalizing headlines & polarization



The image shows a screenshot of the Obama '08 'Get Involved' sign-up form. At the top center is the Obama '08 logo, consisting of a blue circle with a white and red wave pattern, and the text 'OBAMA'08' below it. Below the logo is a large blue banner with the text 'GET INVOLVED' in white, uppercase letters. The banner features a photograph of Barack Obama in a dark suit, looking to the right, standing in front of a crowd of people holding blue signs with the Obama '08 logo. A white arrow labeled 'Media' points to the photograph. Below the banner is a white form area. On the left, it says 'JOIN THE MOVEMENT'. To the right are two input fields: 'Email Address' and 'Zip Code'. To the right of these fields is a prominent red button with the text 'SIGN UP' in white, uppercase letters. A white arrow labeled 'Button' points to this red button. At the bottom of the form area, there is a small blue box on the left that says 'PAID FOR BY OBAMA FOR AMERICA', a small Obama '08 logo in the center, and the text 'CONTINUE to WEBSITE' on the right.



OBAMA'08

# CHANGE

WE CAN BELIEVE IN



**JOIN THE  
MOVEMENT**

Email Address

Zip Code

**LEARN MORE**

PAID FOR BY OBAMA FOR AMERICA



CONTINUE  WEBSITE

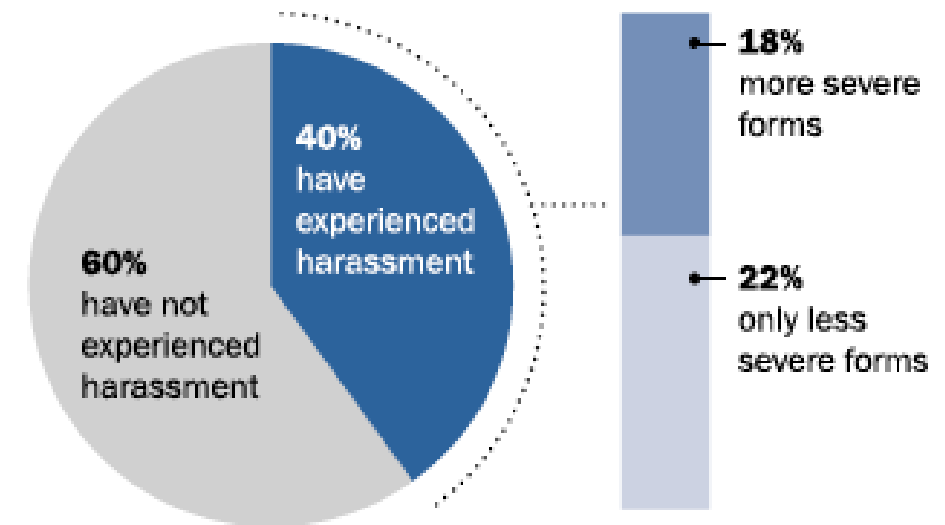
# Harm: Harassment

- Two levels
  - Name-calling, embarrassment
  - Physical threats, long term harassment, stalking, sexual harassment ([Pew Research Center, 2014](#))

---

## Four-in-ten internet users are victims of online harassment, varying degrees of severity

*Among all internet users, the % who have experienced harassment or not and the % who have experienced more vs. less severe forms of harassment ...*



Source: American Trends Panel (wave 4). Survey conducted May 30-June 30, 2014. n=2,839.

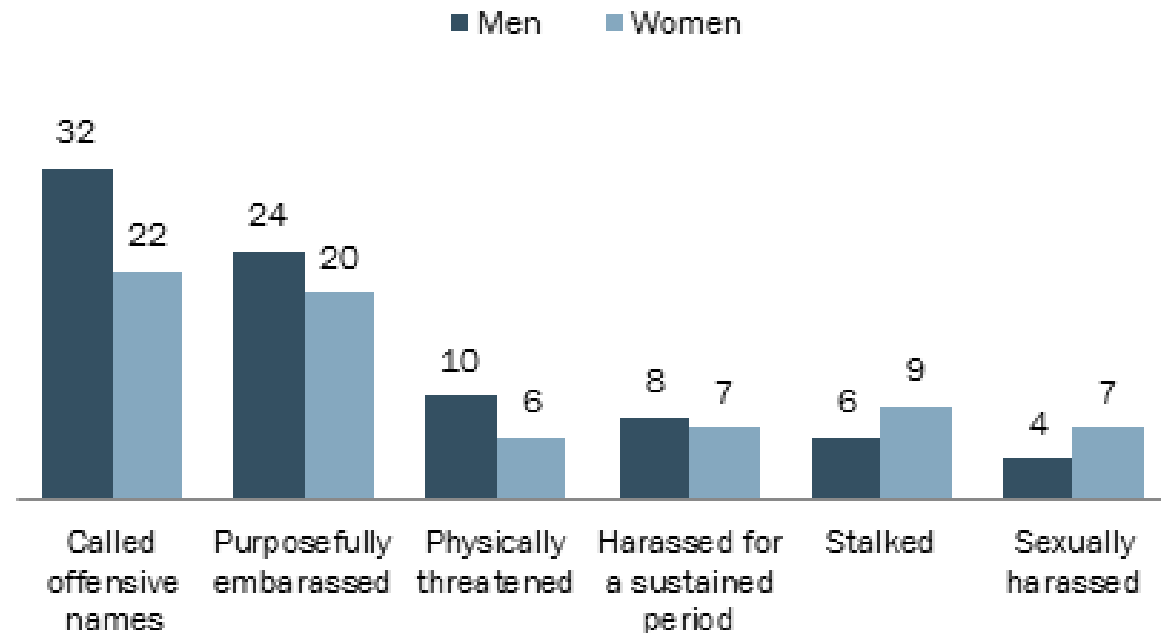
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# Harassment by gender

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## Men and women experience different varieties of online harassment

*Among all internet users, the % who have experienced each of the following elements of online harassment, by gender...*



Source: American Trends Panel (wave 4). Survey conducted May 30-June 30, 2014.  
n=2,839.

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# Harassment: a lexicon

- Concern trolling & Sealioning
- Hacking & Doxing
- Cyberbullying
- Cyber-mob attacks (Dogpiling / Outrage mobs)
- Cyberstalking
- Deepfake
- Online Sexual Harassment
- Revenge porn
- Online impersonation

Source: [PEN America](#)



# Harassment: Twitter outrage storm

- Tech empowerment for harm: reach, impact
- Isolation of reaction from human source
  - Low empathy
  - Accumulation of outrage

The Washington Post  
*Democracy Dies in Darkness*

PostEverything

## Twitter's outrage machine should be stopped. But Justine Sacco is the wrong poster child.

She's white, well-off and already has a new job. So why is Justine Sacco our poster child for victims of public shaming?

Illustration by Andrew B. Myers. Prop stylist: Sonia Rentsch.

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(Kacper Pempel/Files)

By **Patrick Blanchfield**  
Patrick Blanchfield is a doctoral candidate and Woodruff Scholar in comparative literature at Emory University. He writes about American gun culture at

# Harm: Self-harm

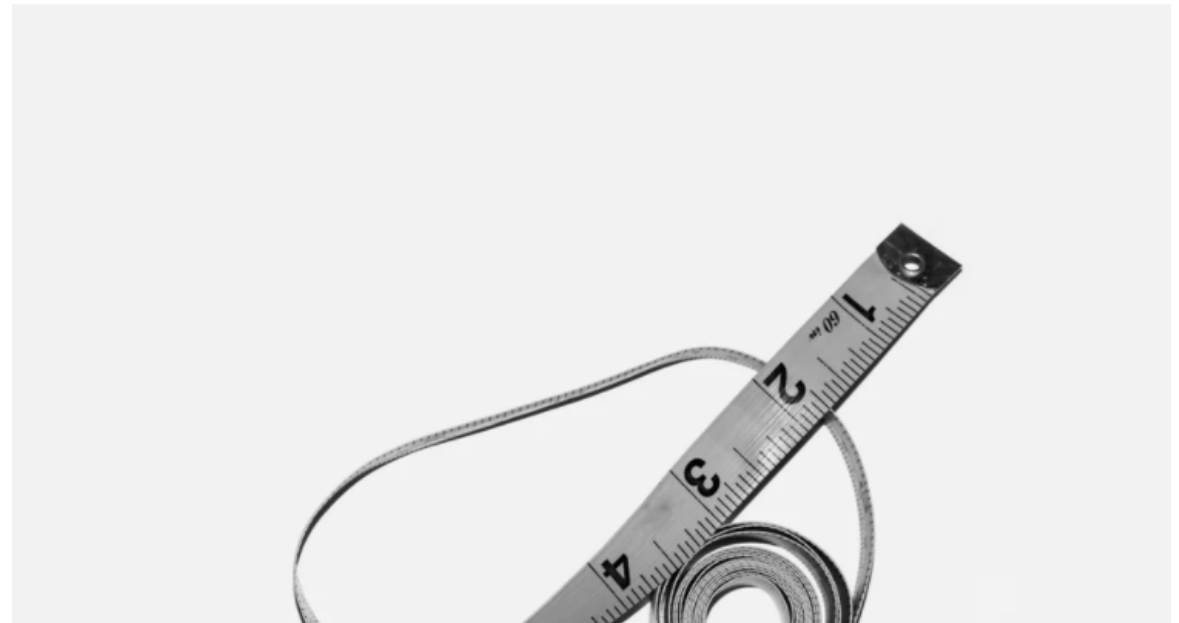
- Influence of addiction and harassment ([Wiki](#))
- Empowerment for harm
  - Pro-ana and Pro-mia content
  - Pro-suicide content
  - Tips of self-harm

YSABEL GERRARD

IDEAS 03.09.2020 09:00 AM

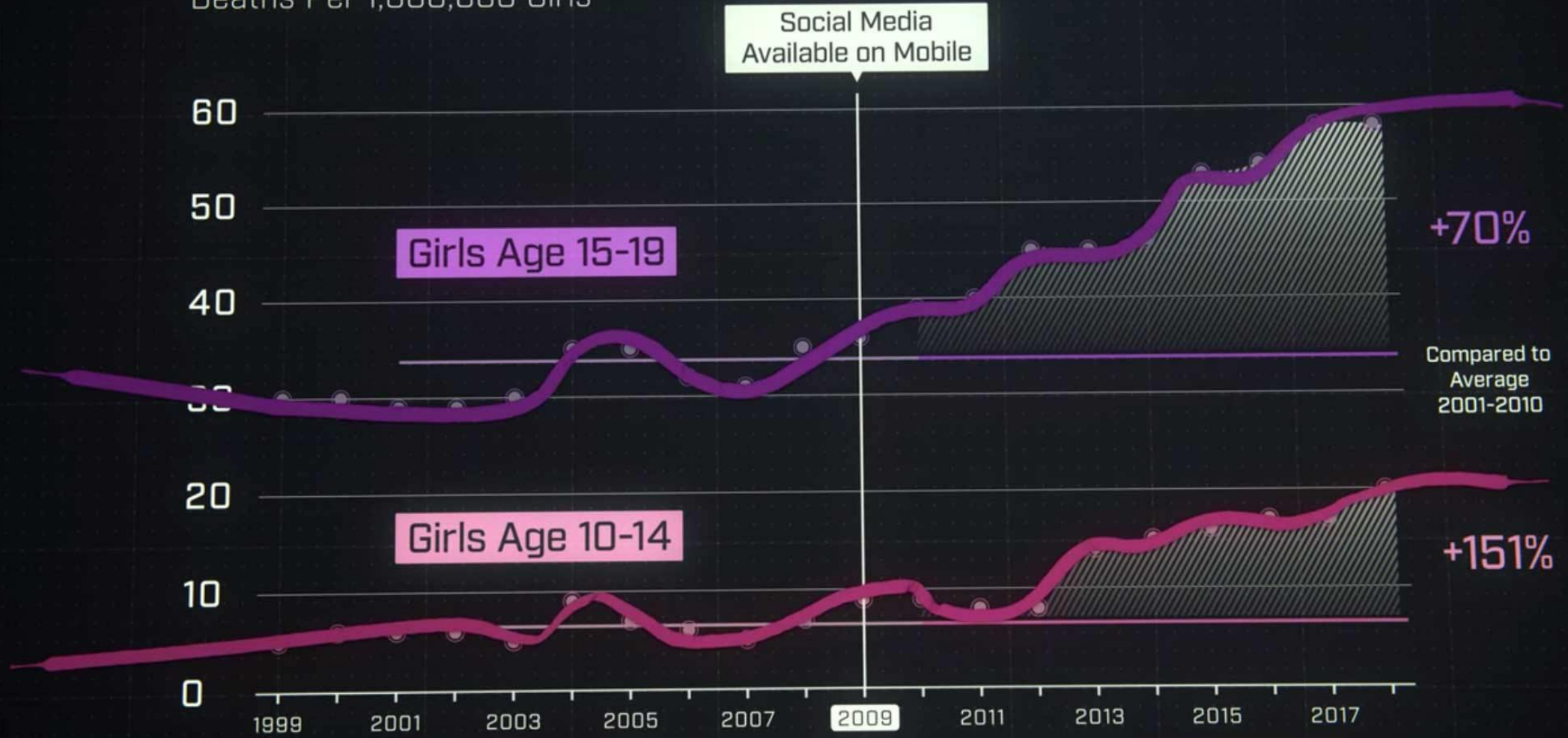
## TikTok Has a Pro-Anorexia Problem

The go-to social media platform for teens needs to improve its recommendation algorithm and partner with eating disorder experts.



# U.S. Suicide Rates

Deaths Per 1,000,000 Girls

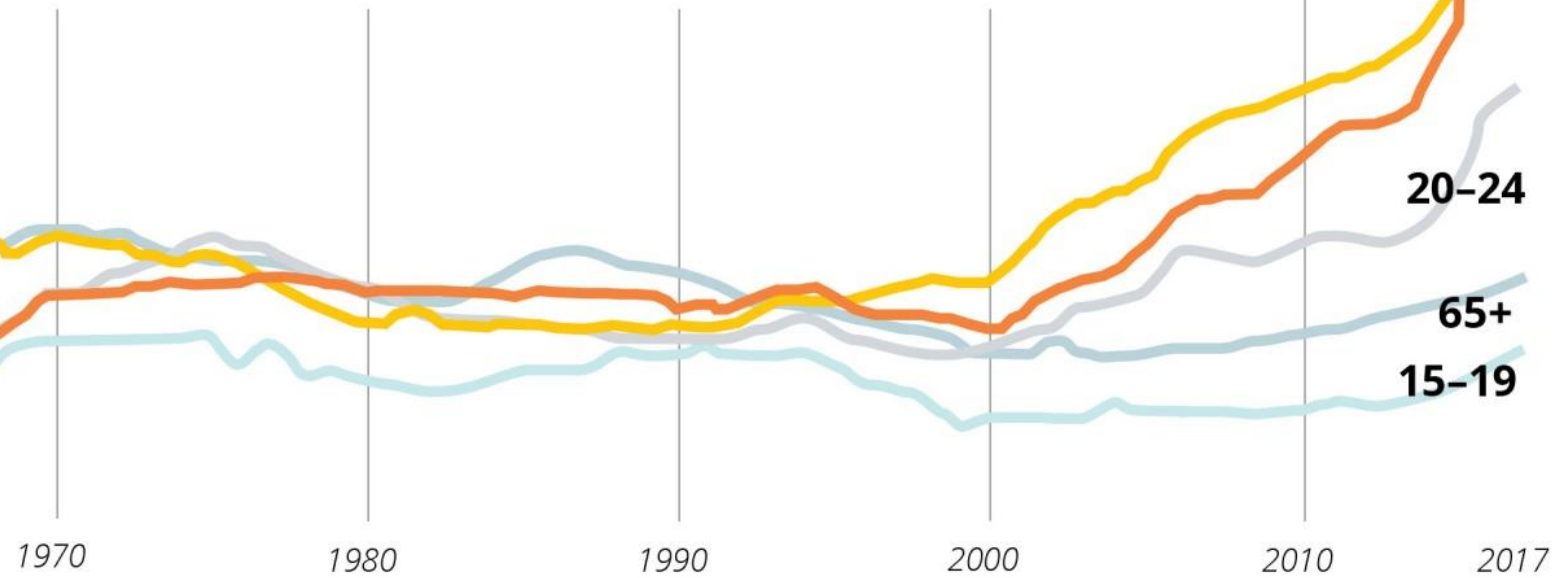


Source: Centers for Disease Control and Prevention

# It's Not the Young or Old Who Have Become Most Self-Destructive

60  
55  
50  
45  
40  
35  
30  
25  
20  
15  
10

*Suicides and other self-destructive deaths by age per 100,000 population, 1968-2017*

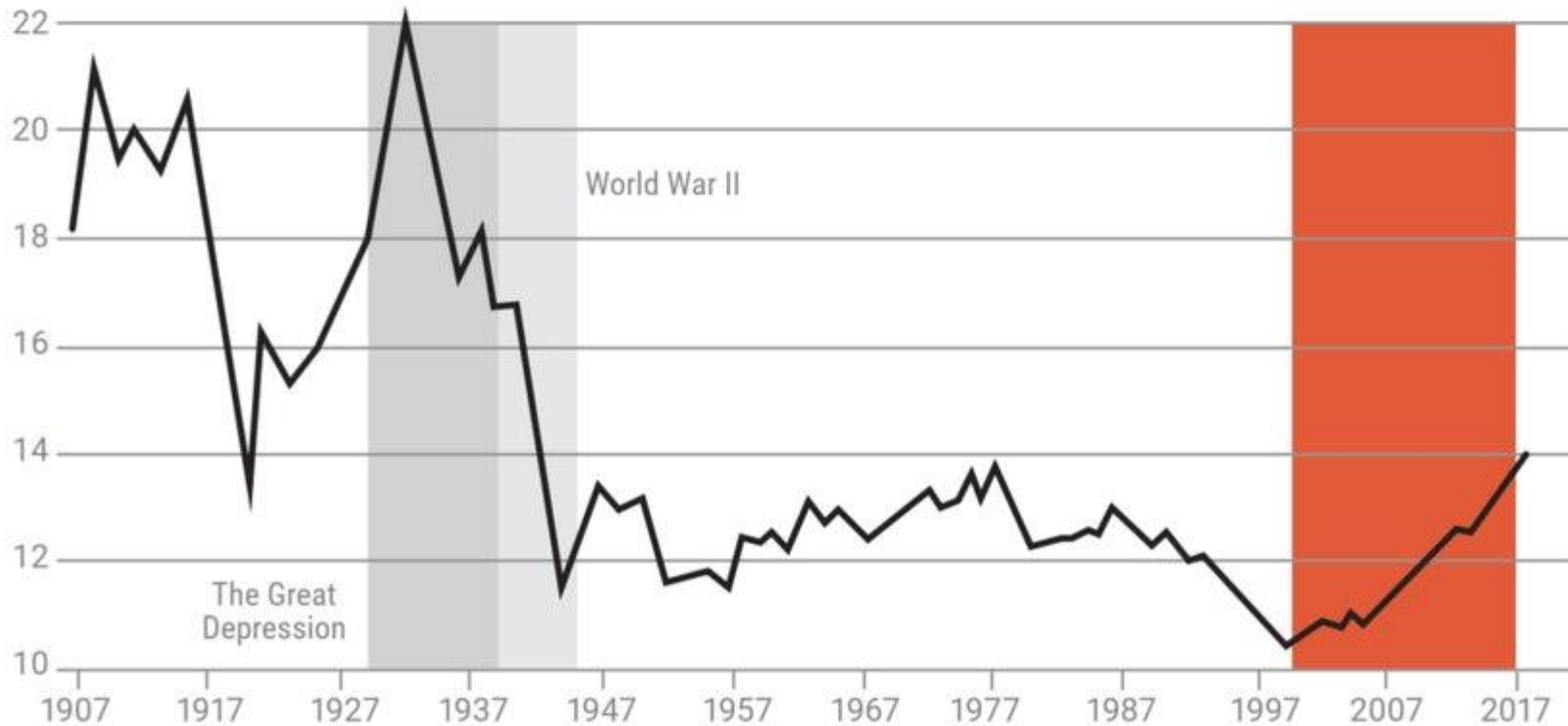


Source: Centers for Disease Control  
YES! infographic, 2019

[YES Magazine](#),  
2019

# AGE-ADJUSTED U.S. SUICIDE RATE 1907-2017

PER 100,000 PEOPLE



Source: U.S. Centers for Disease Control and Prevention. Created with Datawrapper.

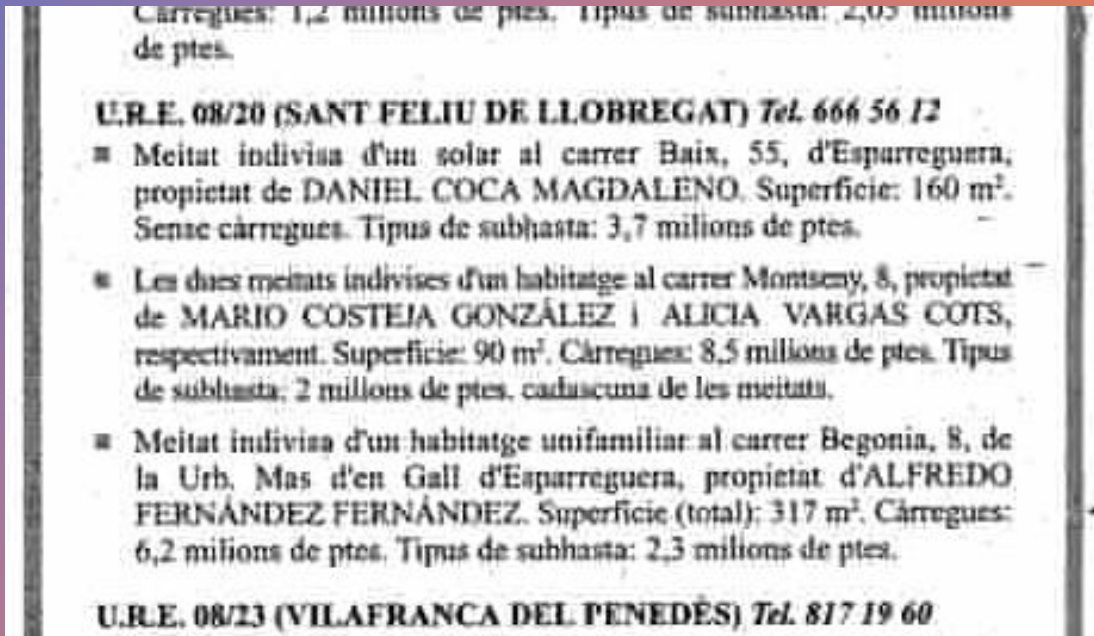
### 3. The extended self





# Right to be forgotten?

- Our past selves are forever available for others
- How can we curate them?
- Mr. Mario Costeja González sued Google in 2012 [[Wiki](#)]
  - To remove links to past announcements of forced auctions of his properties
- This trial established a conditional right to remove information that is “inadequate, irrelevant or excessive”
  - Not necessarily inaccurate or fake
  - Not necessarily prejudicial or negative





# Self as performance

- Erving Goffman, sociologist
- We constantly perform our self in front of audiences
- Our self is shaped through a series of performances
  - Audience: others and ourselves
  - We adjust the performance in time
  - We use **props**



Erving Goffman



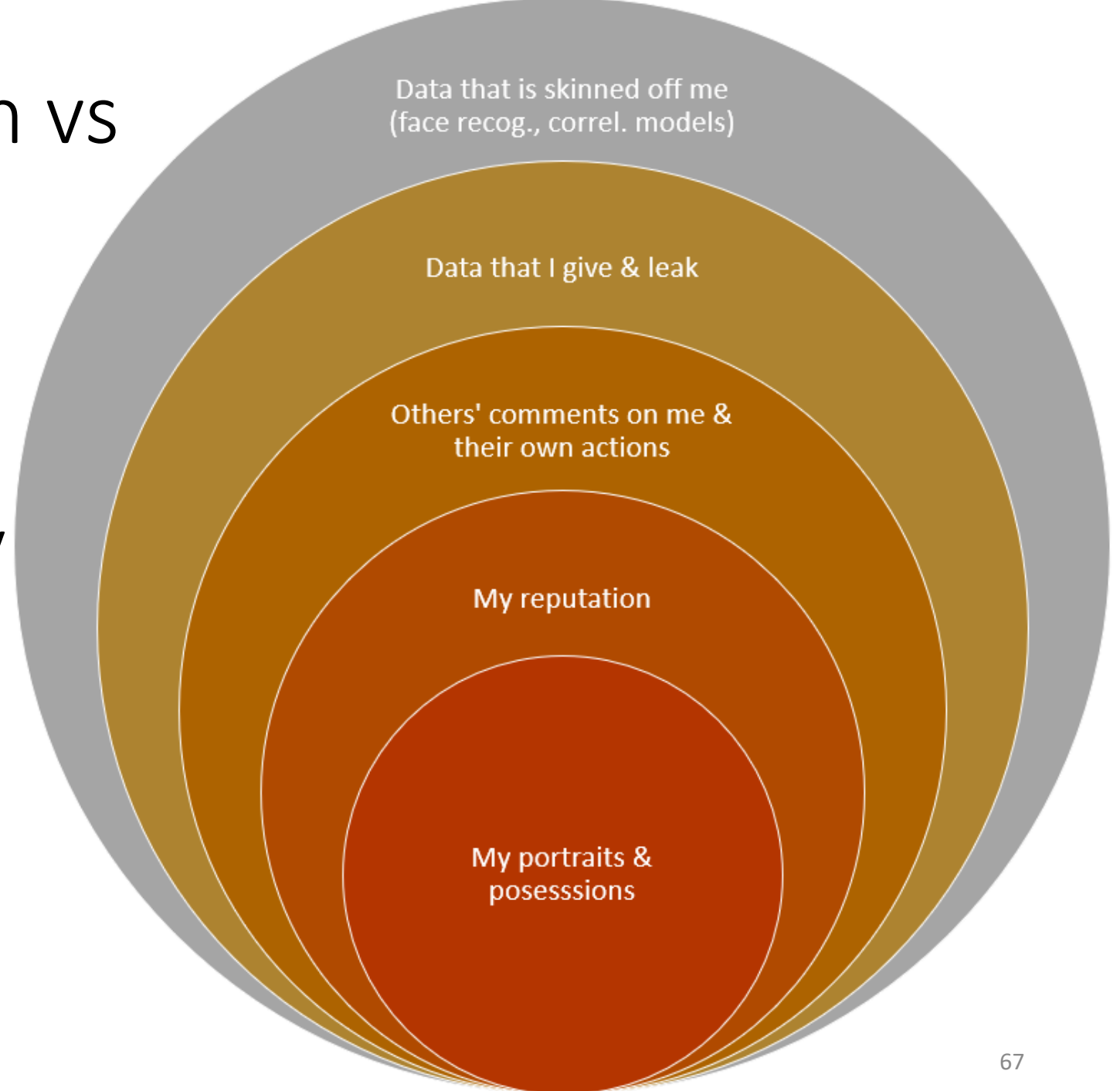
# The self is social, material, informational

- Selves are extended
- Tech: extending **skill surface**
- Tech: extending **vulnerability surface**
- Being vs. having: my possessions are part of my self
  - “Skins”
  - True in real and digital life
- Digital tech shapes our extended self-performance



# Giving information vs giving off

- I **give** and I **give off** information
  - Degrees of control
  - Degrees of authenticity
  - Degrees of predictability?
- Our Big Data captures thoughts, objects, activities
- Correlation without causality: the key to prediction?





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# A Vision of the Dark Future of Advertising

Companies will know more about you than you can even imagine



Jamie Bartlett

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Jan 3 · 6 min read ★



*People do things, feel things, think things, and buy things for reasons they don't understand.*

The driving force behind this is a simple but powerful point: People do things, feel things, think things, and buy things for reasons they don't understand.

Top highlight

Who knows what correlations will be thrown up? I have no idea, and neither will anyone else. All that matters is that these correlations exist. There is no truth anymore, the experts will say, only inputs and outputs.

Some theoretical examples:

- People aged 30 and 35 who eat eggs on Thursday and have a below average heart rate are more likely to be adrenaline junkies who enjoy...
- People who watched YouTube videos between 7 and 9 a.m. as teenagers and travel by public transit are more likely to be traditionalists and...

# Take away – Course 5

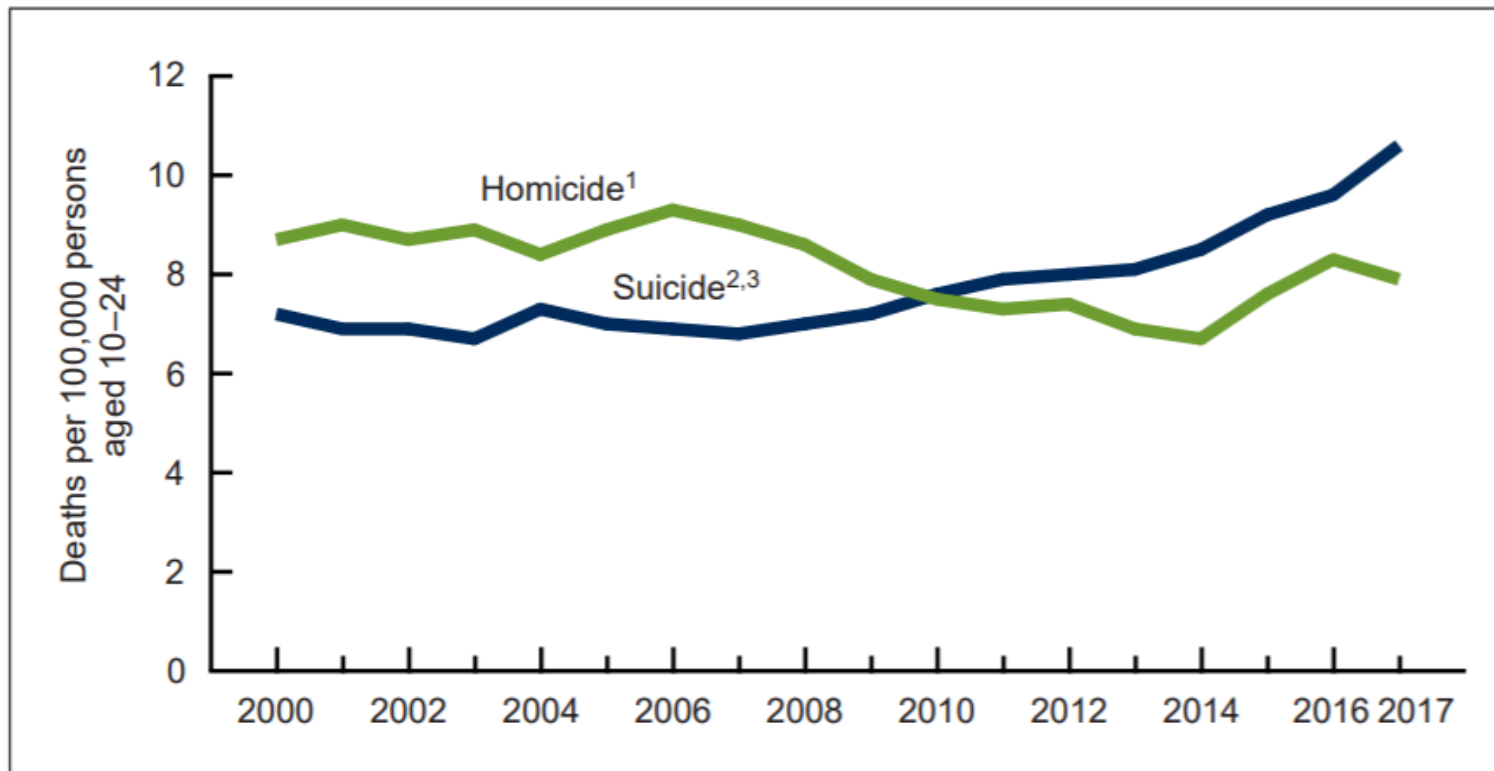
1. Cognition: Augmented vs. diminished?
  - Extended mind & distributed cognition (DCog)
  - Wisdom of the crowds vs. Filter bubbles
  - Ethical issues
    - Fairness: Unequal quality of engagement
    - Harms: Shallow thinking
    - Autonomy: dependence on tech; nudge & dark patterns
2. Emotions
  - Extended emotions & emotional contagion
  - Addiction
    - Nomophobia
    - Variable reinforcement schedules & Hook cycles
  - Ethical issues
    - Harms: harassment, mental health, self-harm
    - Autonomy: addiction & prediction
3. The extended self

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# Self-harm: teen & young people's suicide epidemic (US) – constant rise since 2007

Figure 1. Suicide and homicide death rates among persons aged 10–24: United States, 2000–2017



<sup>1</sup>Stable trend from 2000 to 2007; significant decreasing trend from 2007 to 2014; significant increasing trend from 2014 to 2017,  $p < 0.05$ .

<sup>2</sup>Stable trend from 2000 to 2007; significant increasing trend from 2007 to 2017 with different rates of change over time,  $p < 0.05$ .