

A large, round hay bale sits in the foreground of a golden field at sunset. The sky is filled with soft, orange and yellow light, with a few wispy clouds. In the background, there are silhouettes of trees and a line of green crops. The overall mood is peaceful and rural.

The economic framework: Data & business models

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: Data and business models
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

Ethical vs. impact analysis

Ethics \ Science	Economics	Psychology	Sociology
Fairness	<p>Platform capitalism: unfair competitive advantages (information asymmetry)</p> <p>Gig & ghost economies: unfair distribution of rewards</p>	<p>Unequal quality of digital engagement</p> <p>Enhanced vs. diminished cognition & abilities</p>	<p>Algorithmic biases</p> <p>Unequal access to digitalization</p>
Harm	<p>Platform capitalism: harm to competitors</p> <p>Gig & ghost economies: harm to workers</p>	<p>Online harassment</p> <p>Self-harm related to social media consumption</p>	<p>Polarization</p> <p>Mistrust in democracy and expertise</p> <p>Decrease in social capital & public goods</p>
Autonomy	<p>Platform capitalism: monopolistic reduction of free choice</p> <p>Surveillance capitalism: nudging through prediction products</p>	<p>Addiction to social media and digital stimuli</p> <p>Decreased control over our attention and time</p>	<p>Filter bubbles & misinformation machines: decreased control on information flows</p>

Outline – Course 7

1. Data, decision traces and surveillance capitalism
 - Manipulation and attractive apps are two sides of the same coin
 - Platform / surveillance capitalism stimulates information asymmetry
2. Ghost & Gig economy
 - Unfair distribution of rewards between market-makers and market-takers
 - Harm to workers
 - Autonomy vs. flexibility
 - Case study: Uber
3. Asymmetry: ethical issues in platform capitalism
 - Harm
 - Autonomy
4. Emerging business models: Follow the money! Follow the data!
 - Google, Tinder, FaceApp, DomiNations

A dark, textured building facade is covered in a dense grid of small, silver surveillance cameras. A vertical, dark rectangular panel is visible in the center. In the foreground, two people are standing and talking. The overall scene is dimly lit, suggesting a surveillance theme.

1. Data, decision traces, and surveillance capitalism

What is the business model for Shazam?

- Should Shazam know your **location**?
- Why?
- How is this information shared?
 - “You may choose to provide Shazam with permission to collect your location while you are using the app. We use location data to show you where your songs are Shazamed and improve the quality of the service.”
 - “We may also share your information: With service providers who perform services and functions on our behalf to help deliver the services and communicate with you.” ([Shazam Privacy](#))



Shazam & Privacy

Shazam is designed to protect your information and enable you to choose what you share.

We built this page to answer the questions you may have regarding your Shazam data—and show you how to easily manage your data.

Paying in data capitalism

- We pay with...
 - Our time / Eyeballs
 - Our money
 - Our data
- Do we have a choice?
- Do we pay multiple prices?

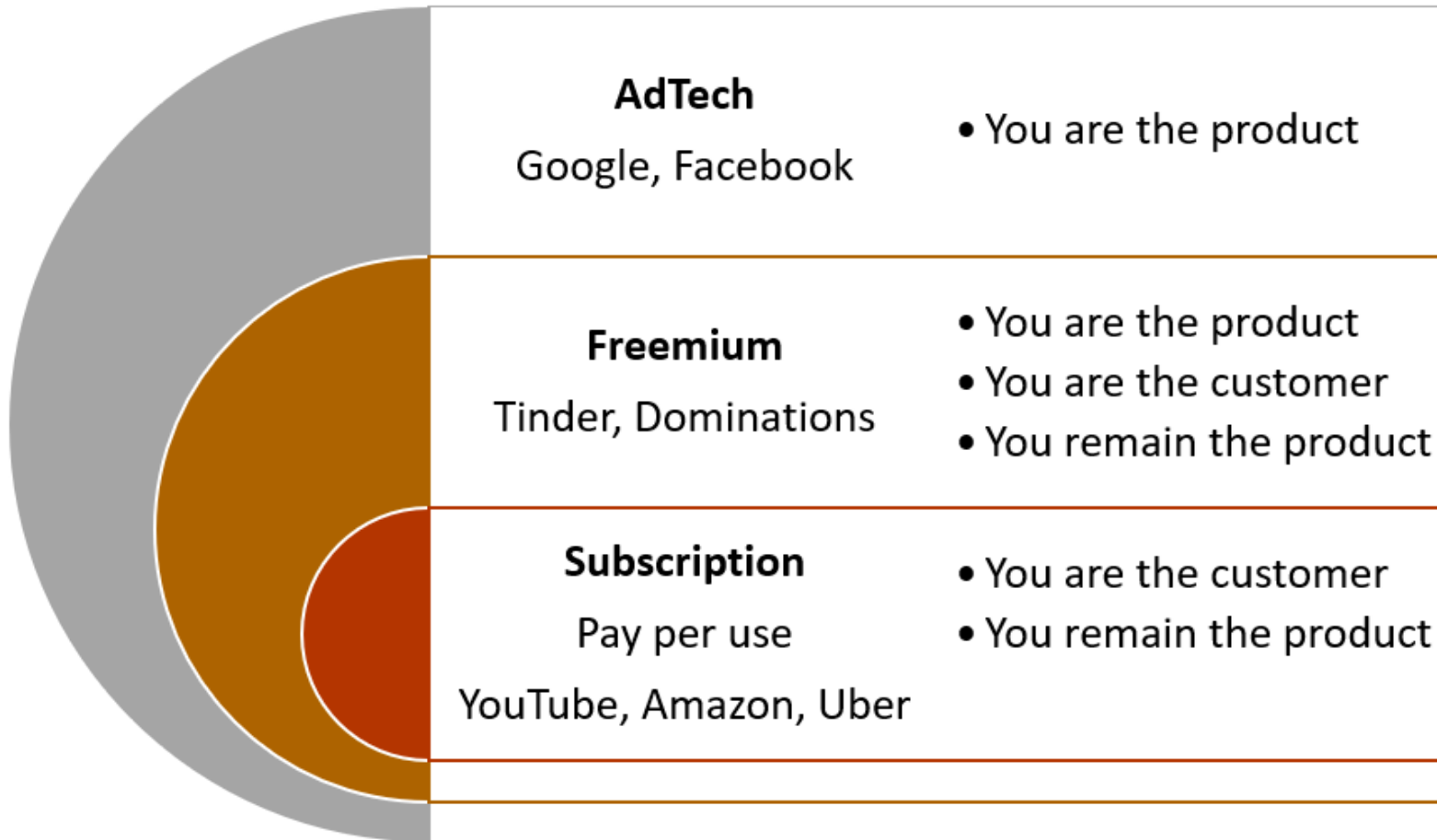


Data vs. us

- Surveillance capitalism relies on predictive models fueled by massive, intimate, updated data
 - Traces of our decisions
- Data flows are extracted by engaging platforms & apps
 - Powerful search engines
 - Effective markets on which we buy & sell
 - Wide-reaching social media
- Information asymmetry & psychological manipulation are disempowering



Feeding turkey to the turkey



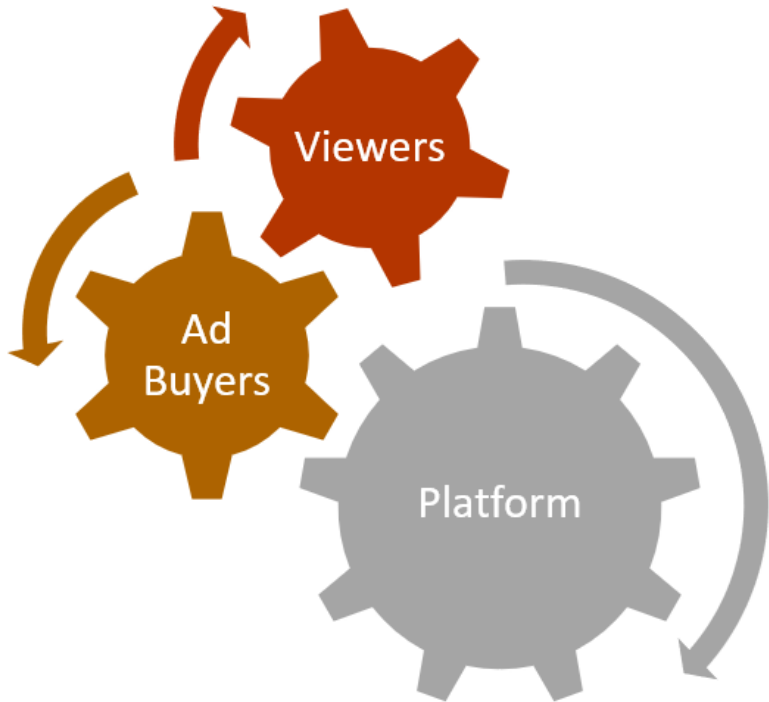
Privacy-enhancing technologies

- Enhance user control over data flows
- Diminish the vulnerability surface of our digital profile
- Monitoring algorithmic decision making
- Re-align commercial incentives



Two types of platform business models

Google, Facebook, Twitter



Viewers use the platforms for free
Ad buyers pay for the platform

Amazon, Uber, Airbnb



Buyers pay ON the platform
Sellers pay FOR the platform

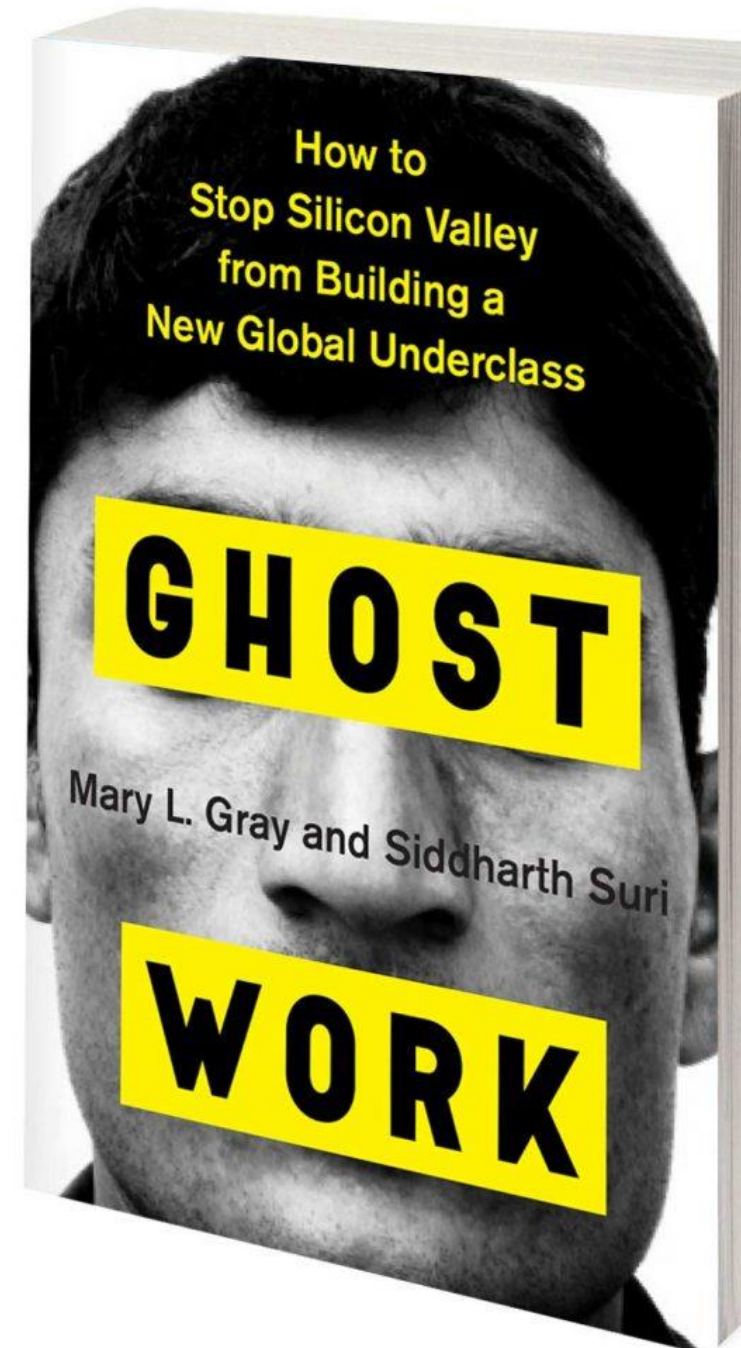
A photograph of two white LEGO Stormtrooper minifigures standing on a light-colored wooden surface. They are positioned on either side of a large, brown, speckled egg, with their hands resting on its surface as if supporting it. The background is a soft, out-of-focus light brown. The text is overlaid on the egg.

2. Sellers as Users: Ghost & Gig Work

A case study of asymmetries of power

Ghost work

- Platform-**enabling** task-centered work [[Wiki](#)]
- Platform + workers
- What makes tech seem so smart? [[BBC](#) 2019]
 - Humans filter abusive content, flag X-rated content, proofread, classify & tag
- Fairness: Platform vs. worker earnings
- Harm: Workers usually...
 - Earn less than legal minimums for traditional work
 - Amazon Mechanical Turk workers: median hourly wage of only ~\$2/h, only 4% earned more than \$7.25/h (2018 study)
 - Have no health insurance or paid leave
 - Can be fired anytime for no reason



Gig work

- Platform-**enabled** task-centered work
- Platform + Workers + Paying users
- Gig = Working on the side of... what?
 - Gig work becomes the main source of income
- Fairness
 - How are incomes divided between platform and workers?
- Harm
 - A fragmented, career-less trajectory
 - Low wages & No employee protection
- Autonomy vs. Flexibility
 - Flexible hours, schedule



Gig workers = employees or contractors?

- Uber drivers are not employees
 - No guaranteed rights and benefits such as healthcare or paid leave
- Uber drivers are not true independent contractors
 - Limited control: can't set their own rates, choose their own clients



Proposition 22 in California

- Uber, Instacart, Lyft, DoorDash and others spent \$203 million [[Ballotpedia](#)]
- The No on Proposition 22 campaign, backed by unions and labor groups, raised \$20 million
- Proposition was approved with 58.7 percent of the vote



Inactive
Sep 1, 2020 - Sep 17, 2020
ID: 596566741038591



Yes on Prop 22

Sponsored • Paid for by Yes on 22 – Save App-Based Jobs & Services: a coalition of on-demand drivers...

Hundreds of thousands of rideshare & delivery jobs across California are at risk without Prop 22. Vote Yes on Prop 22 to save California's app-based jobs and services.



Jimin S.
San Francisco
Mom & Instacart Driver

YES on 22

Active
Started running on Sep 16, 2020
ID: 1141914852877043



Yes on Prop 22

Sponsored • Paid for by Yes on 22 – Save App-Based Jobs & Services: a coalition of on-demand drivers...

Prop 22 will protect the ability of app-based drivers to work as independent contractors. Drivers like Alisha need flexibility and prefer to remain independent contractors by a 4-to-1 margin. Vote YES on Prop 22 to save this critical work.



Alisha A. | Los Angeles
Rideshare Driver

Active
Started running on Sep 16, 2020
ID: 655906511702834



Yes on Prop 22

Sponsored • Paid for by Yes on 22 – Save App-Based Jobs & Services: a coalition of on-demand drivers...

#YesOnProp22 protects what app-based drivers want and need -- the flexibility and freedom that comes with working as an independent contractor. Single mom, Maria, relies on the flexibility of app-based driving to earn extra income while still being there for her family.



"I'm a single Mom to a beautiful daughter that plays hockey. Working as a **rideshare driver** has helped me make some **extra income and still have the flexibility** to see my daughter play."

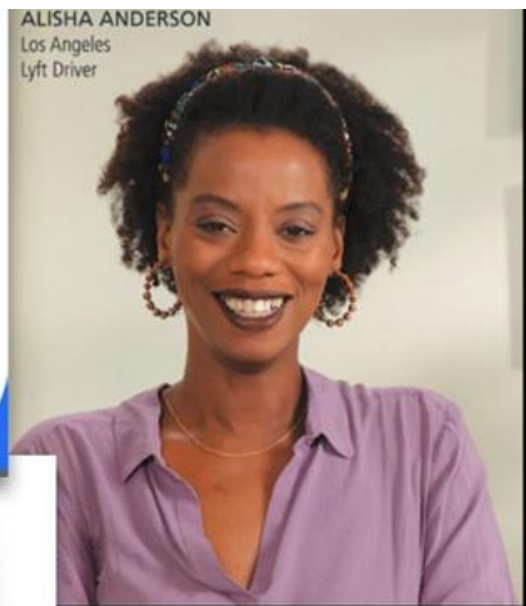
Maria M.
Orange County, CA
Uber & Lyft Driver



Drivers deserve better

72% of drivers back Prop 22. Will you back them?

Yes on Prop 22



ALISHA ANDERSON
Los Angeles
Lyft Driver

App-Based Drivers need your Vote!

Yes on 22 =

- + New earnings guarantee
- + Healthcare benefits
- + Protects flexible schedules drivers need

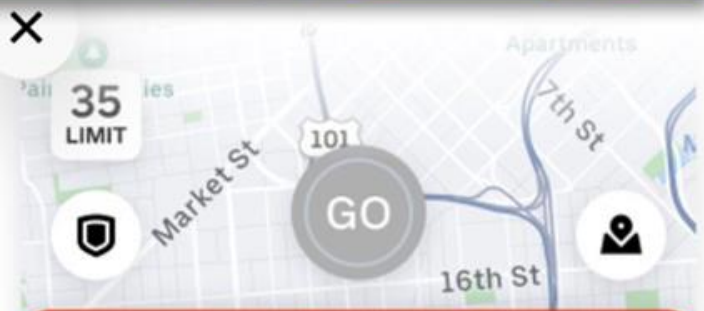
Paid for by Yeson22.com. Top Funders: Uber, Lyft, & DoorDash



If Prop 22 fails to pass, riders and drivers will be affected

Your ride prices and wait times are likely to substantially increase while most drivers will lose their incomes

[Yes on Prop 22](#)



Unable to go online

by Yeson22.com. Top funders: Uber, Lyft, & DoorDash

Alisha, a rideshare driver, says she will vote YES on 22. Drivers who support Prop 22 will receive a \$150 bonus.

Social justice advocates like the NAACP CA & coalition like the Hispanic Federation support Prop 22. 22's benefits include an earnings guarantee, occupational accident insurance, and flexible schedules while protecting riders.

Driving jobs would be limited

We estimate only 3 out of 10 drivers would be hired as higher prices and longer wait times

Shifts would be scheduled

Right now you can go online anytime but with scheduled shifts work would be limited to certain times of the day or week.

Yes on 22



UBER

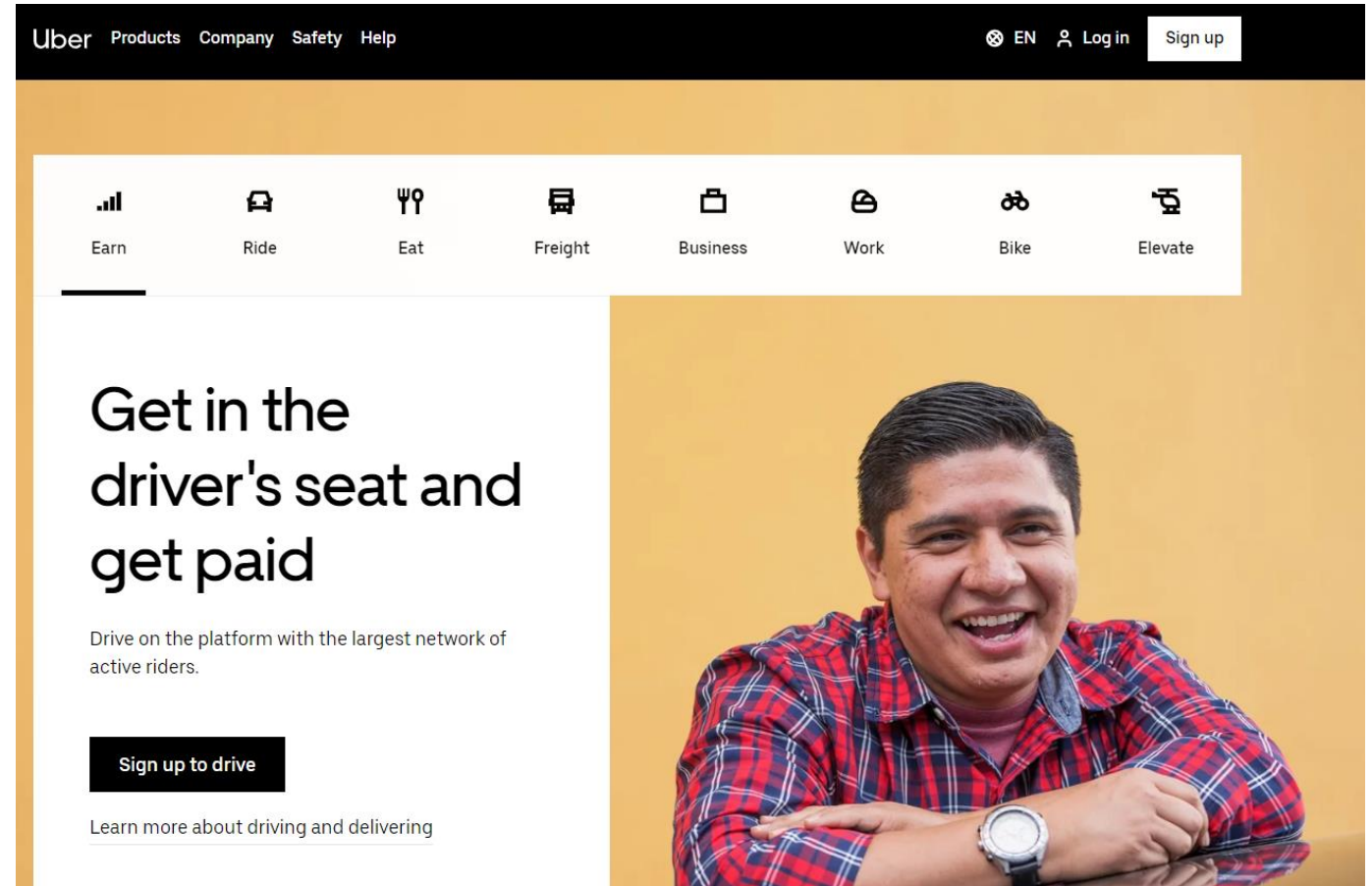
now

Your driver supports Prop 22

Ask your driver why they back Prop 22. Paid for by Uber Technologies.

Uber business model

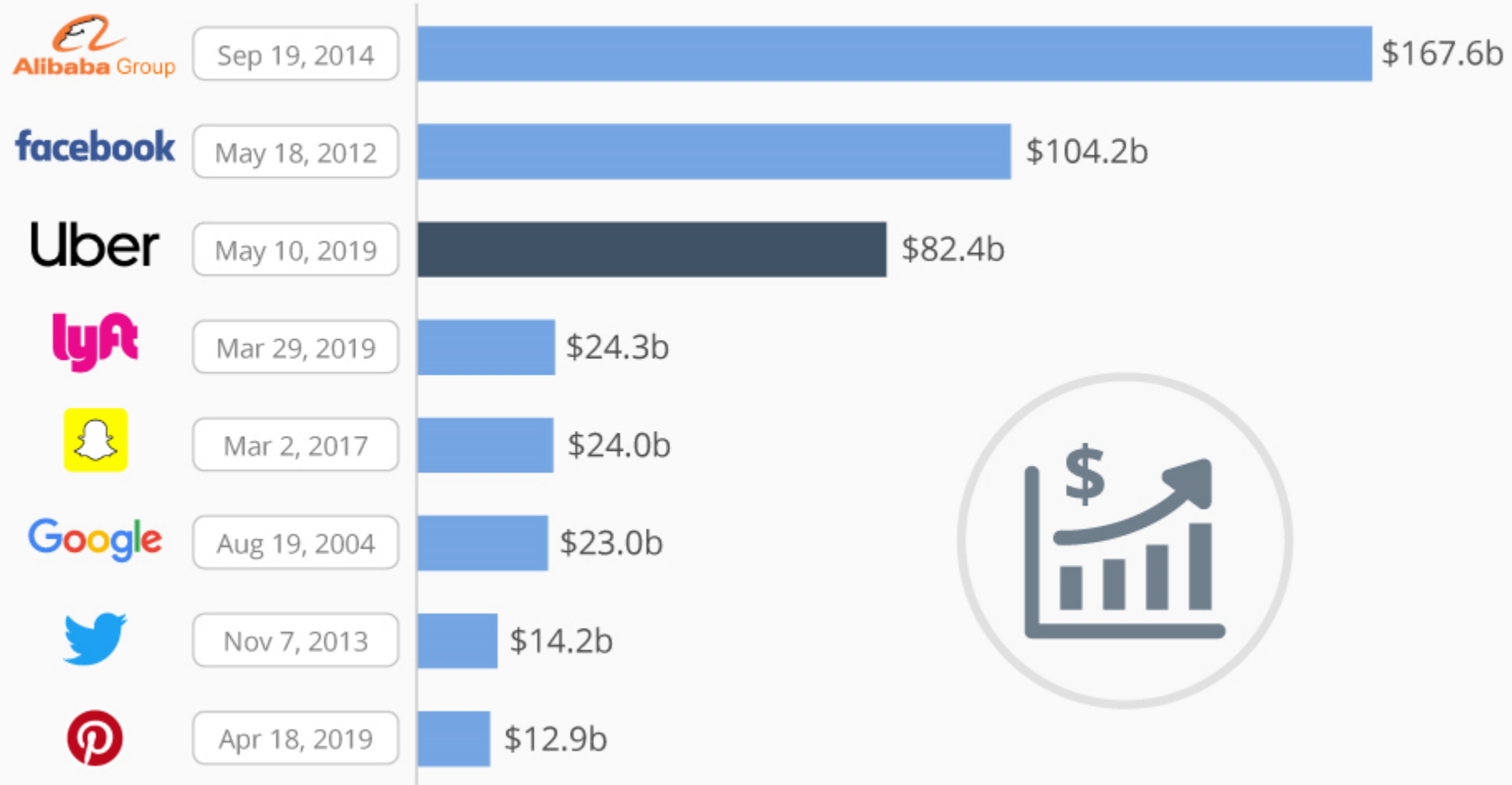
How will Uber make money?
(because it doesn't)



The screenshot shows the Uber website's navigation bar with links for Products, Company, Safety, and Help. On the right, there are links for EN, Log in, and a Sign up button. Below the navigation bar is a menu with icons and labels for Earn, Ride, Eat, Freight, Business, Work, Bike, and Elevate. The main content area features a large heading: "Get in the driver's seat and get paid". Below this heading is a sub-heading: "Drive on the platform with the largest network of active riders." A prominent black button with white text says "Sign up to drive". Below the button is a link: "Learn more about driving and delivering". To the right of the text is a photograph of a smiling man in a red and blue plaid shirt, wearing a watch, with his arms crossed.

How Uber's IPO Valuation Measures Up

IPO valuations of selected tech/internet companies



@StatistaCharts

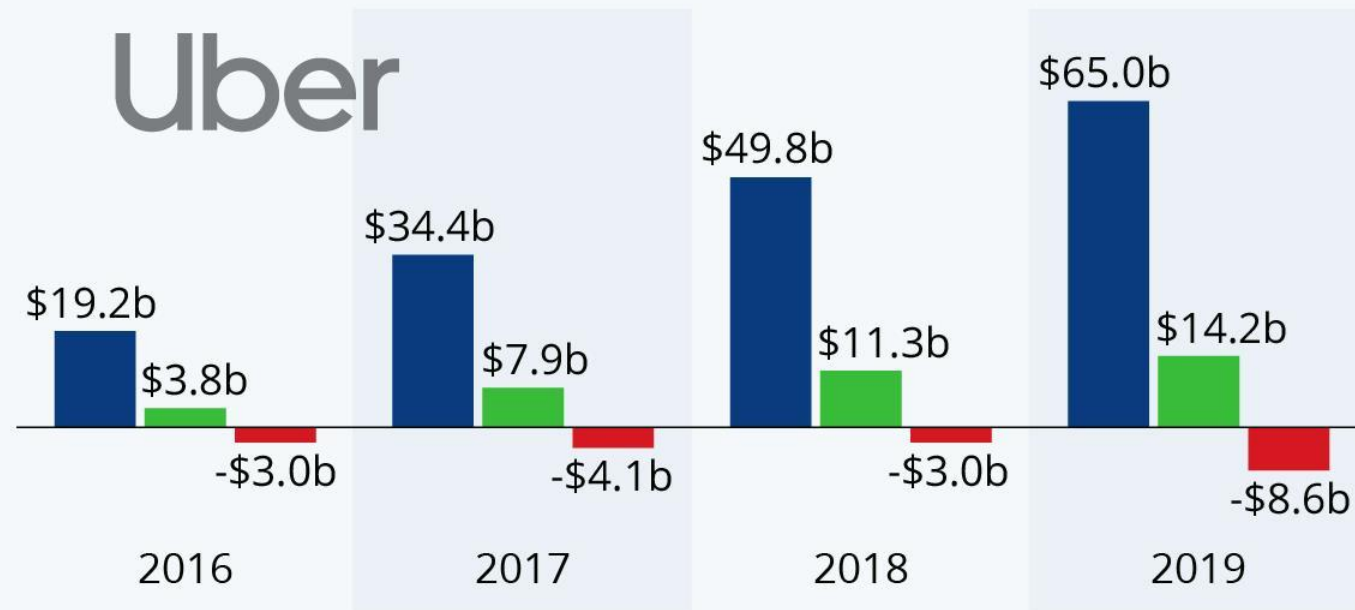
Sources: Company Filing, Media Reports

statista

Uber's Blockbuster Growth Comes at a Hefty Price

Uber's gross bookings, revenue and operating loss since 2016

■ Gross Bookings ■ Revenue ■ Operating Loss



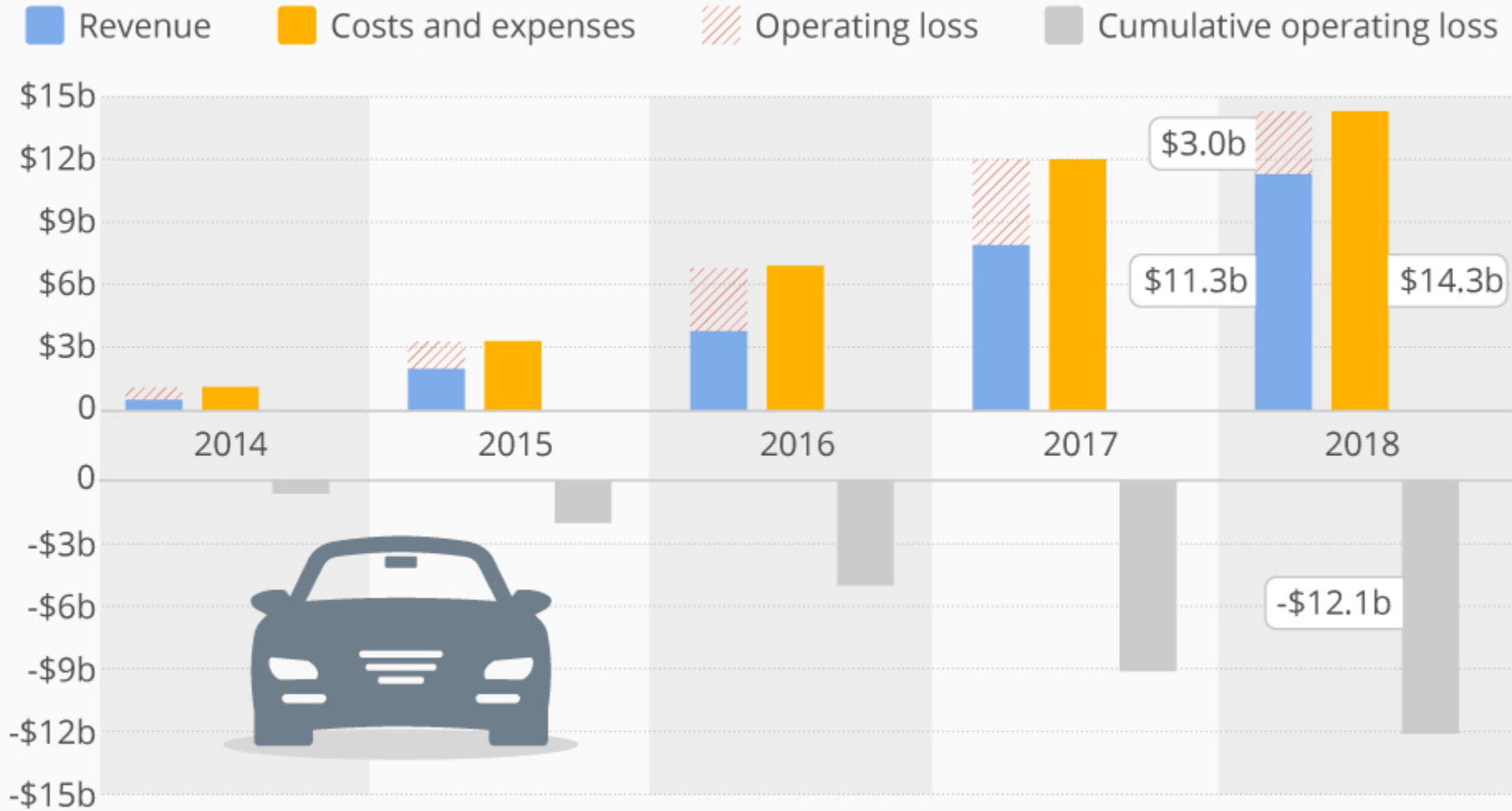
Gross Bookings represent the total dollar value of all rides, Uber Eats meal deliveries and Uber Freight shipments without any adjustment for discounts/refunds, driver and restaurant earnings.

Source: Uber



Uber's Operating Losses Piled Up to \$12 Billion Since 2014

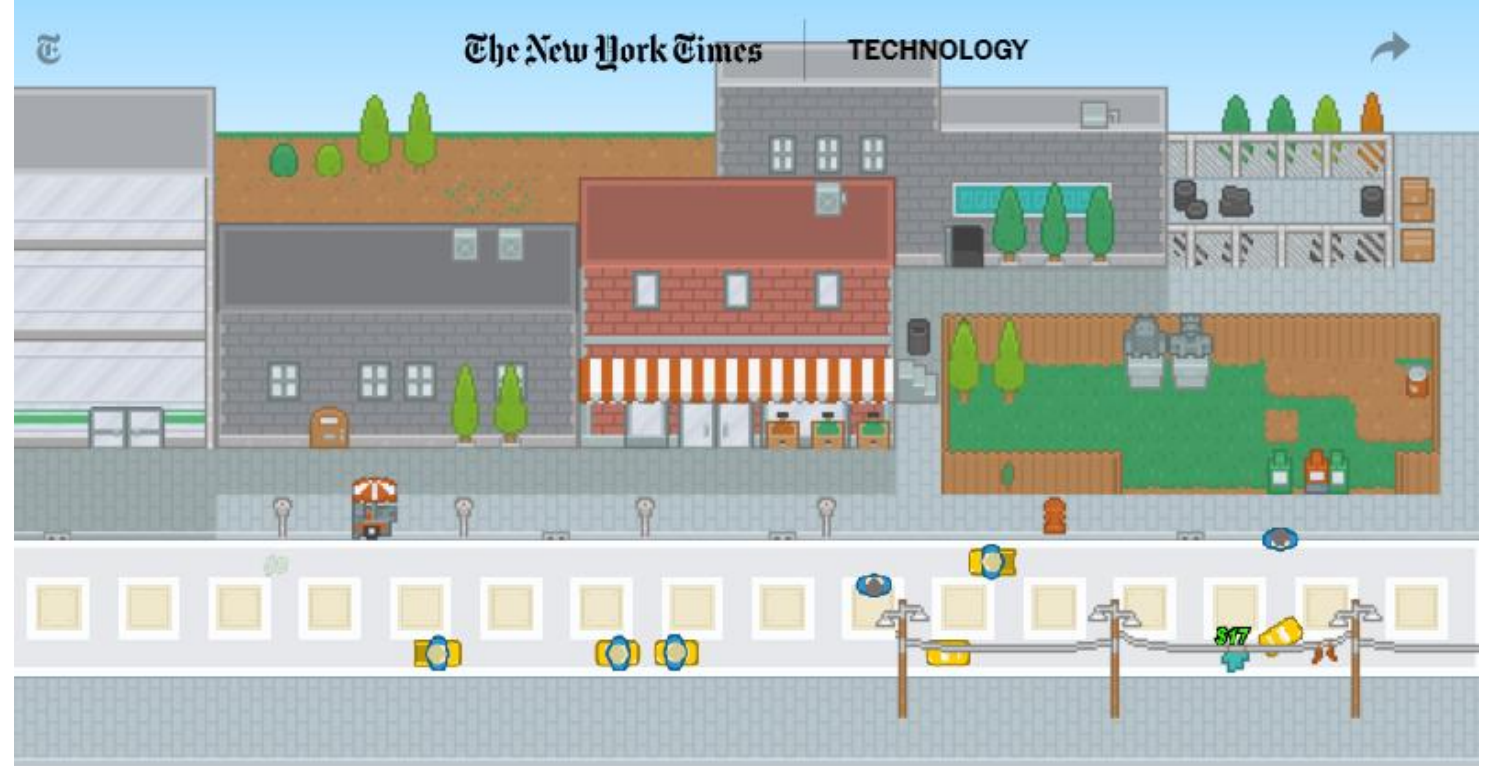
Uber's revenue, costs and expenses and cumulative operating losses since 2014



Interest misalignment

- “Uber leads drivers to believe that the interests of riders, drivers, and the firm are aligned, when in fact they are **divergent** and often opposed.
- Uber enjoys **total control of its algorithm** and faces strong incentives to design it in such a way as to maximize its own growth and earnings at drivers’ expense.
- The novel types of harms that drivers may incur as a result are often **individually small but significant in aggregate**, but **invisible** to workers and regulators”. ([Muller](#), 2020)

“Employing hundreds of social scientists and data scientists, Uber has experimented with video game techniques, graphics and noncash rewards of little value that can prod drivers into working longer and harder — and sometimes at hours and locations that are less lucrative for them.”
(Scheiber 2017)



How Uber Uses Psychological Tricks to Push Its Drivers' Buttons

The company has undertaken an extraordinary experiment in behavioral science to subtly entice an independent work force to maximize its growth.



Uber

20 JUL 2020 NEWS

Uber Drivers in GDPR Fight to Unmask Algorithms



Phil Muncaster UK / EMEA News Reporter , Infosecurity Magazine

[Email Phil](#) [Follow @philmuncaster](#)

Two Uber drivers are taking the platform to court, arguing that it has failed to meet its GDPR obligations to reveal detailed profiling data about them and how it is used, according to reports.

The case will be launched today by the UK-based [App Drivers and Couriers Union](#) in the district court in Amsterdam, where the ride hailing giant's European operations are headquartered.

The drivers, also based in the UK, want to know how the data and algorithms are used by the firm to make silent automated decisions about their jobs.

Related to This Story

[AI and Data Privacy: Compatible, or at Odds?](#)

[Is Hype Around AI Muddling the Message for IT Decision Makers?](#)

[In Bots We Trust: Better Enterprise Security Through AI](#)

[Cybersecurity Predictions for 2018 - Part One](#)

Users vs. cash vs. data

- „Uber had 91 million monthly active users by the end of last year
- The market leader in the ridesharing space amassed operating losses in excess of \$12 billion since 2014, making it the king of loss-making tech unicorns.
- Even Amazon, infamous for losing money in its early years, never piled up losses at a rate even remotely close to Uber’s.”
- Vision: „Amazon of transportation”

Felix Richter, Statista, <https://www.statista.com/chart/17705/uber-revenue-costs-and-cumulative-operating-losses/>

Uber and data

Uber uses travelers' and drivers' data to...

- Incentivize drivers to drive more and in specific times & places
 - Are drivers workers or independent contractors? Different incentives allowed
- Price trips
 - Surge pricing
- Partner with other companies in marketing alliances
- Partner with public authorities for traffic regulation, finding missing persons
- Other future uses?

An aerial photograph of several traditional wooden boats, likely sampans, on a body of water. The boats are decorated with colorful fabrics and flowers. The water is dark, and the boats are arranged in a loose cluster. The text is overlaid on the center of the image.

3. Asymmetry: Ethical issues in platform capitalism

3.1 Harm in platform capitalism

Harm against competitors and users

Example: findings from the US House Antitrust
Report, 2020

Google

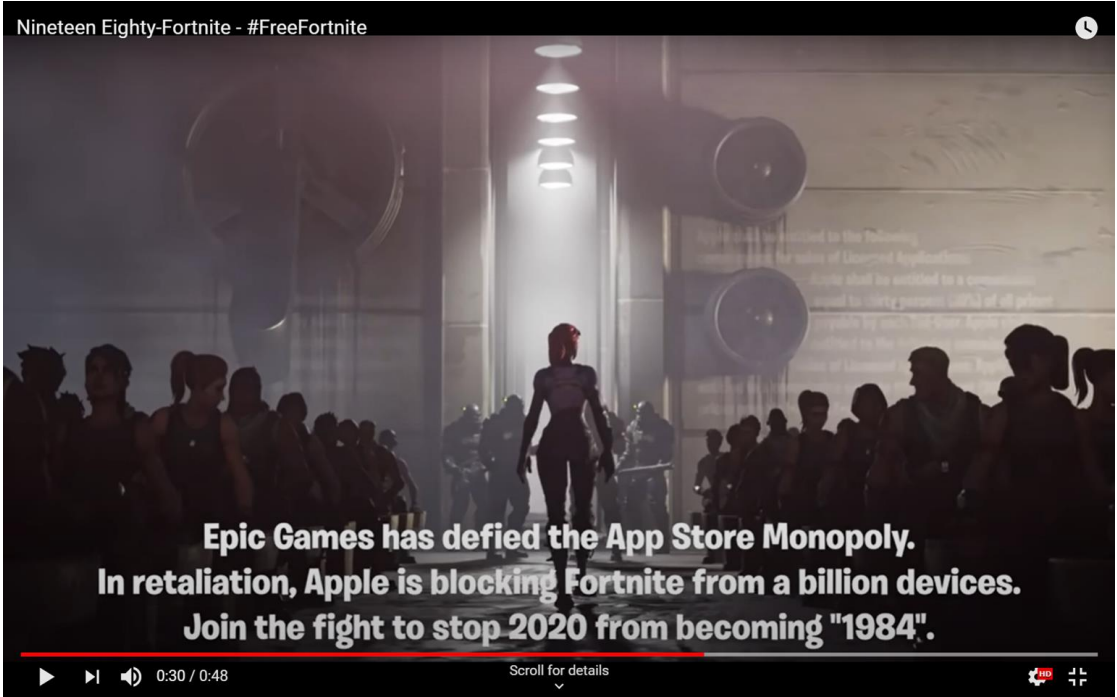


- The internet giant recognized the threat of “vertical search engines” early on and moved to neutralize them
- Vertical search engines focus on a specific niche, such as TripAdvisor Inc. for travel reviews, Monster for job postings and Yelp Inc. for local businesses
- Google adjusted its search algorithm to automatically elevate the ranking of some of Google’s services above those offered by rivals
- Google used contracts with Android handset manufacturers to box out rival search, email and payment services
- Google offers Android for free in exchange for requirements to pre-install apps like Gmail and Maps. From 2009 to 2014, Google more than doubled the number of required apps to 30

Apple



- The iPhone maker is a monopolist that uses its dominance to harm rivals and consumers
- Apple's cut of App Store purchases, typically 30%, is "exorbitantly high"
- Apple works to create high switching costs for users, producing a lock-in effect
- Apple has become increasingly focused on pushing developers to adopt in-app-purchases
- It gives its apps priority in the App Store
- Apple executives would arbitrarily create reasons to remove apps that competed with Apple's own software and services
- Apple seeks out popular apps in the App Store to later copy [Bloomberg](#) 2020

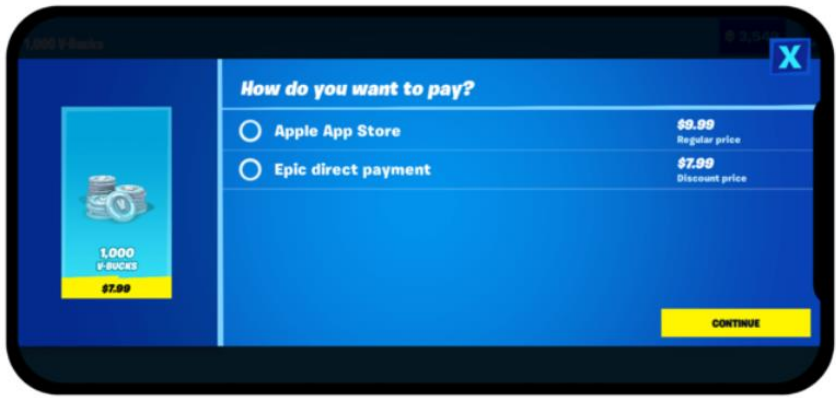


PATTERN MATCHING

How Fortnite Baited Apple Into a Losing Battle

Epic Games' ambush shows how antitrust scrutiny has changed the app store landscape

 Will Oremus Aug 15 · 8 min read ★





Amazon

- Amazon has monopoly power over small online sellers in the U.S.
- The company treats third-party merchants as if they were disposable
- The company is willing to use this to exert pressure on suppliers and favor its own products over those sold by third-party sellers.
- Amazon likely accounts for more than half of online sales in key product categories.



Survey: Independent Businesses See Major Threats in Amazon, Corporate Concentration

ABOUT THE AUTHOR



ILSR

ALL ARTICLES
BY ILSR

INDEPENDENT BUSINESS
HOME

FEATURED TOPICS

- Amazon
- Covid Response
- Dollar Stores
- Monopoly
- Policy Tools

Facebook



- Facebook is a monopoly because the company considers services it already owns, including Instagram and WhatsApp, to be fiercer competition for the social network than outside apps like Twitter and Snapchat
- Facebook has also restrained smaller competitors by monitoring their growth and coming up with strategies to buy or crush them

3.2 Autonomy in platform capitalism

Big Tech vs. free choice

- Discouraging alternatives through unfair practices
 - Search outside Google
 - Shopping outside Amazon
 - Social networking outside Facebook
- Nudging users through prediction products
 - Data harvesting – what user agreement?
 - Manipulation of choice in political, labor, education and other markets



A LEGO Stormtrooper figure is positioned inside a cracked brown eggshell. The figure is white with black and blue details, standing upright. The eggshell is split into two halves, with the figure visible in the left half. The background is a plain, light gray surface.

4. Data-driven tech business models

Are we customers or products?

Google, Tinder, Space App, Dominations

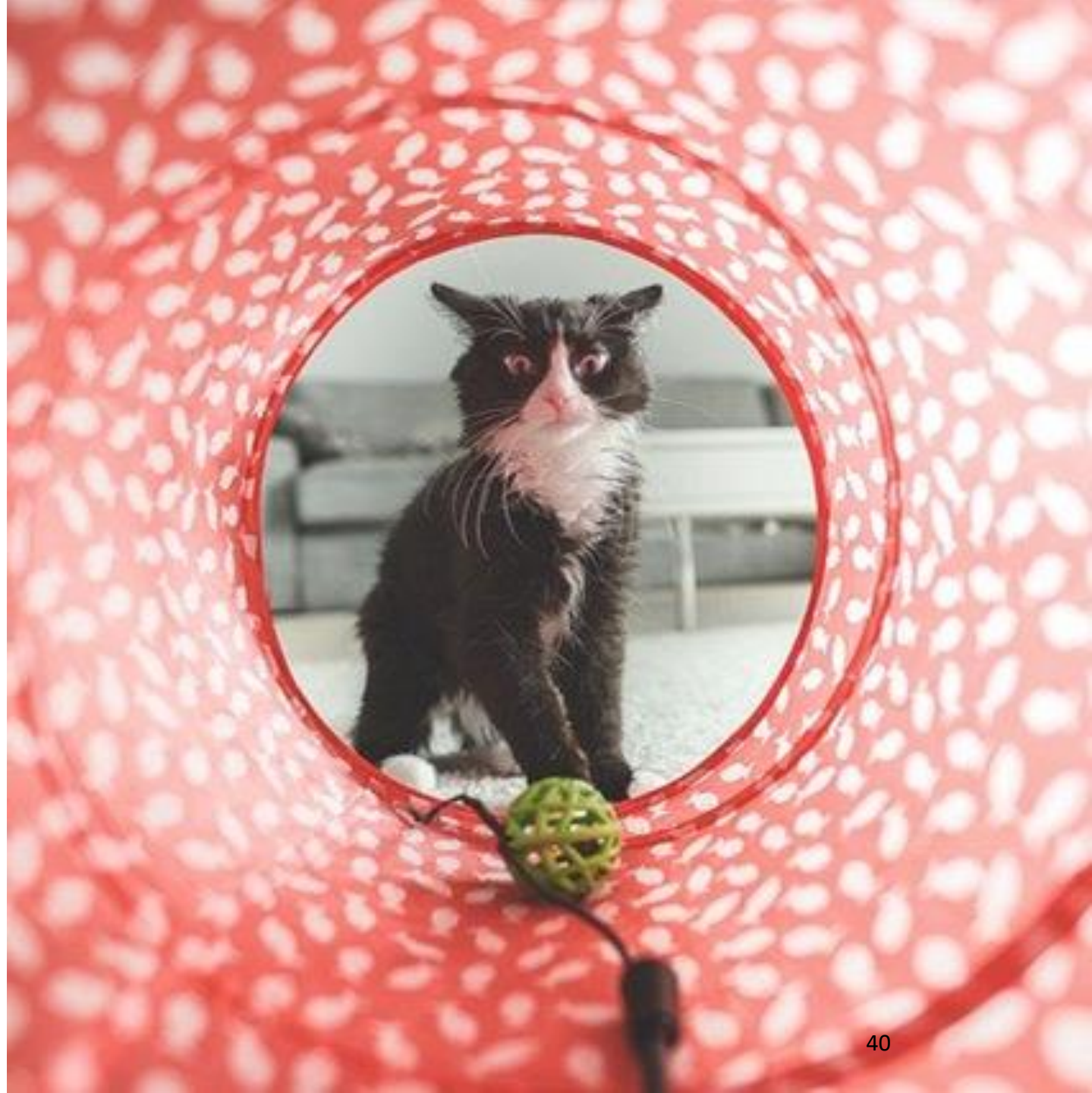
Tech as possibility and probability


- We can extend our abilities through tech
- Tech possibilities become probabilities through business models



Making sense of tech

- Follow the money!
- Follow the **data**!





Who pays whom for an
ad you see on a blog?

November 3, 2020

Most Valuable Companies in the World - 2020



Cont Demo Gratuit

77% din conturile CFD de retail pierd bani.

Admiral Markets



4.1 Google

How does Google make money?

The Google logo is displayed in its characteristic multi-colored font: blue 'G', red 'o', yellow 'o', blue 'g', green 'l', and red 'e'.A white search bar with rounded ends. On the left side, there is a magnifying glass icon and a vertical line. On the right side, there is a microphone icon.

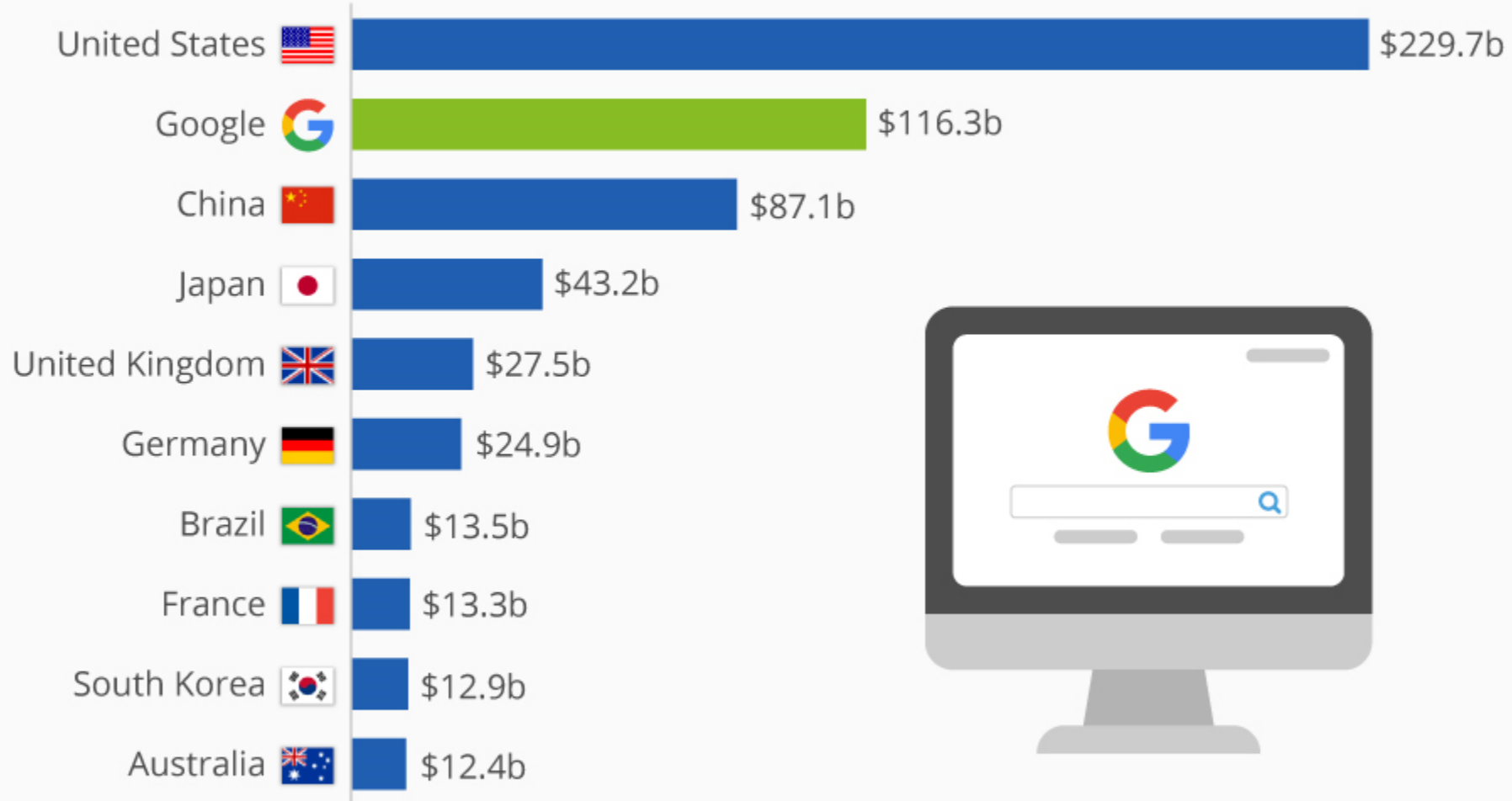
Google Search

I'm Feeling Lucky

Google offered in: [Română](#) [magyar](#) [Deutsch](#)

The Incredible Size of Google's Advertising Business

Google's advertising revenue compared to total ad spend in the largest ad markets 2018

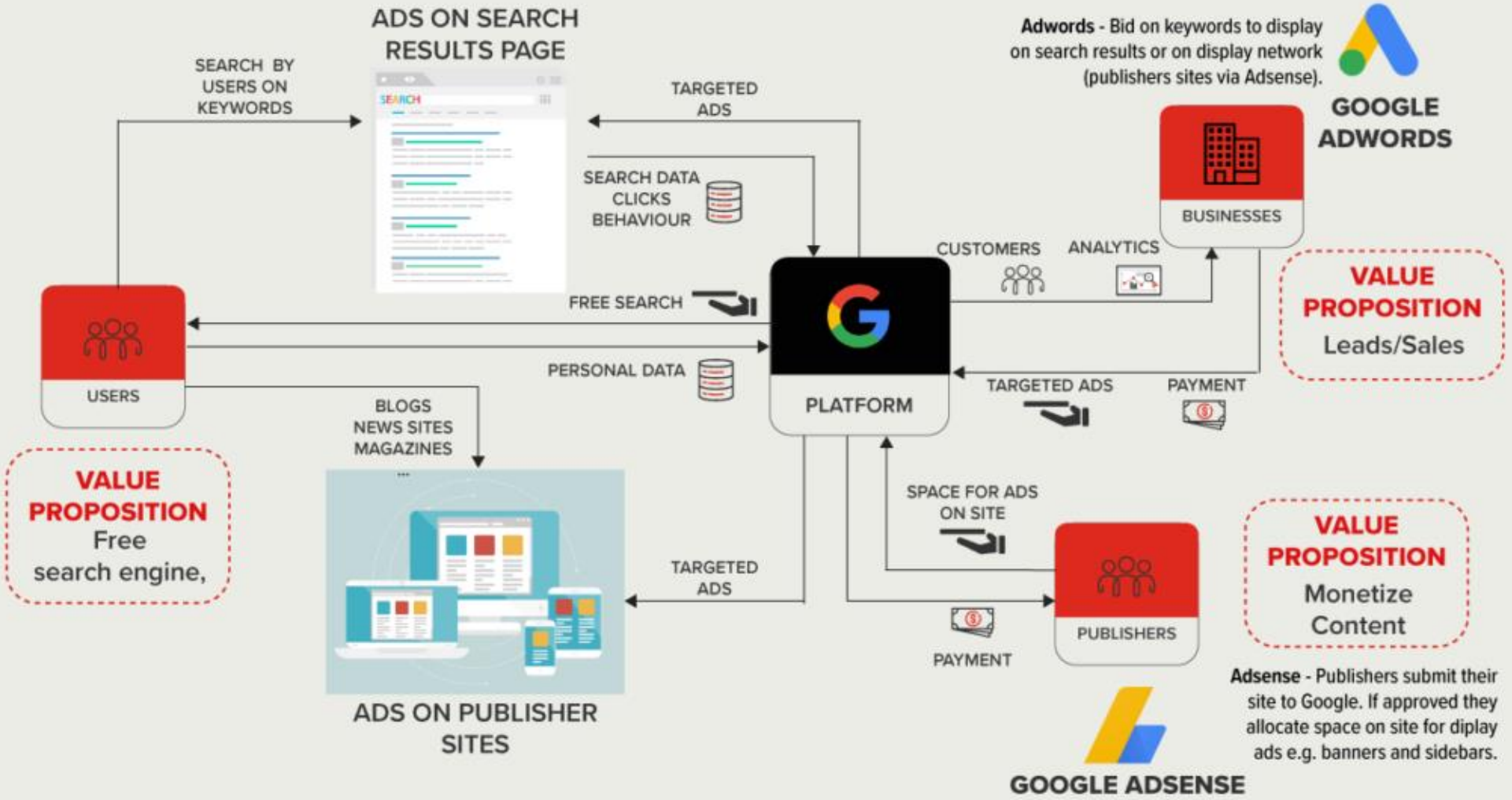


@StatistaCharts Sources: Alphabet, Zenith



GOOGLE BUSINESS MODEL

THE HIDDEN REVENUE BUSINESS PATTERN



Micro-moments are moments of monetizable despair

FEATURED STORIES

How Google Marketers Exploit Your Discomfort

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



Patrick Berlinquette **Following**

Dec 13, 2018 · 7 min read ★

„Today, 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.”

<https://medium.com/s/story/make-orwell-fiction-again-part-2-micro-moments-9ba6e042a0c4>

think with Google™

The Basics of Micro-Moments

Want to develop a strategy to shape your consumer's decisions?
Start by understanding the key micro-moments in their journey.

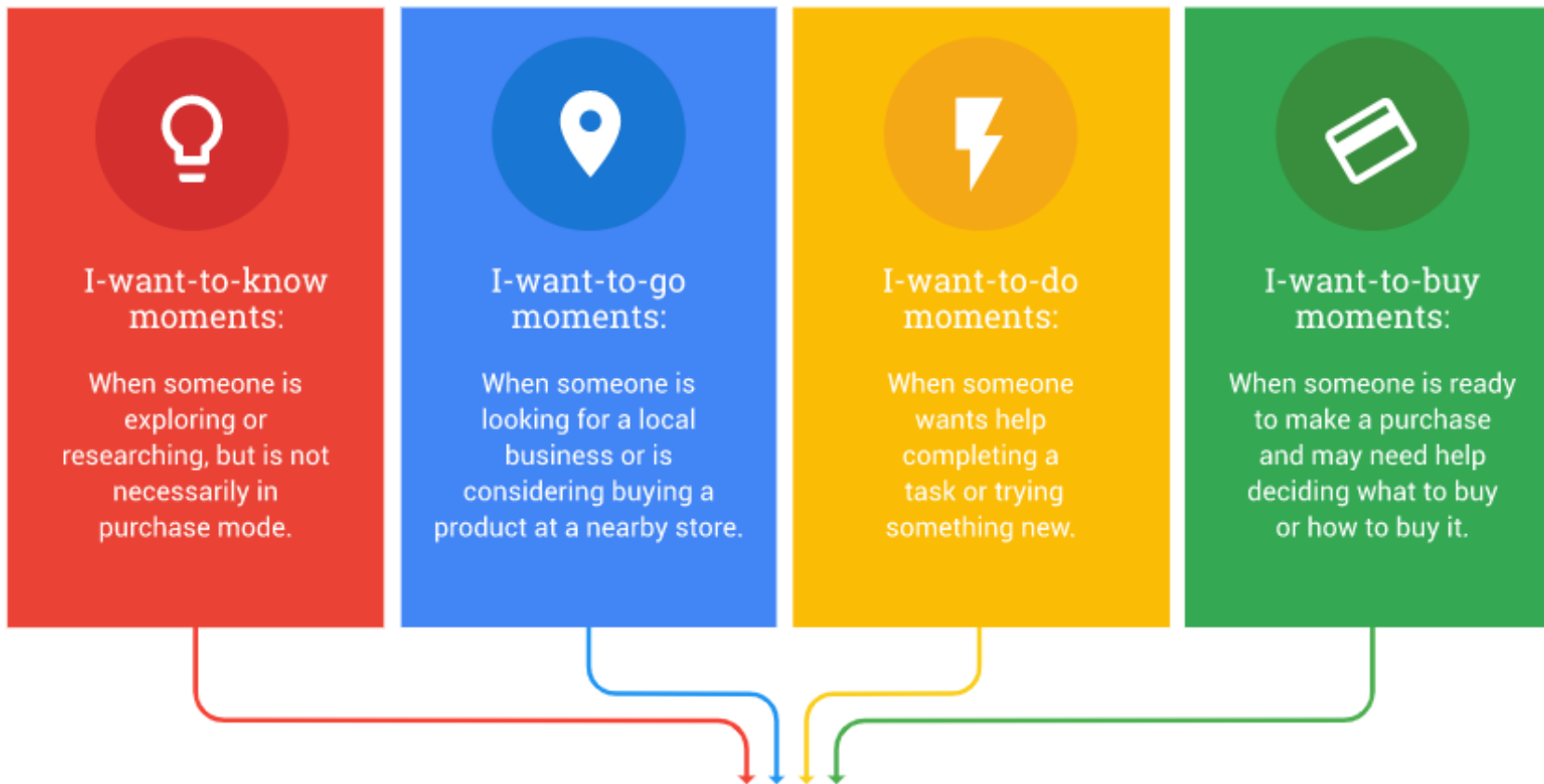


micro-moment | mīkrō-mōmənt

NOUN

An intent-rich moment when a person turns to a device to act on a need—to know, go, do, or buy.

There are 4 game-changing moments that really matter.



In these moments, consumers want what they want, when they want it—and they're drawn to brands that **deliver on their needs**.

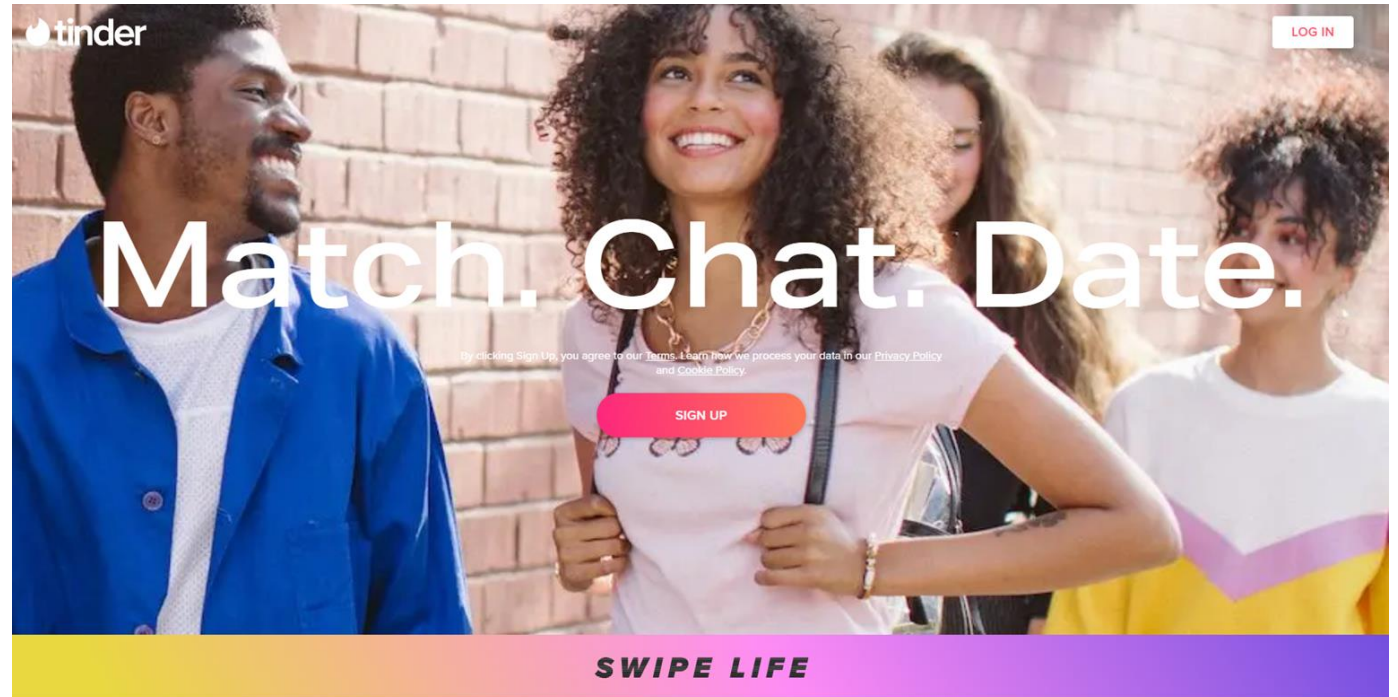
Micro-moments

- Of leisure travelers who are smartphone users, 69% search for travel ideas during spare moments, like when they're standing in line or waiting for the subway.
- Of smartphone users, 91% look up information on their smartphones while in the middle of a task.
- Of smartphone users, 82% consult their phones while they're standing in a store deciding which product to buy.
 - One in 10 of those end up buying a different product than they had planned.

[Think with Google](#)

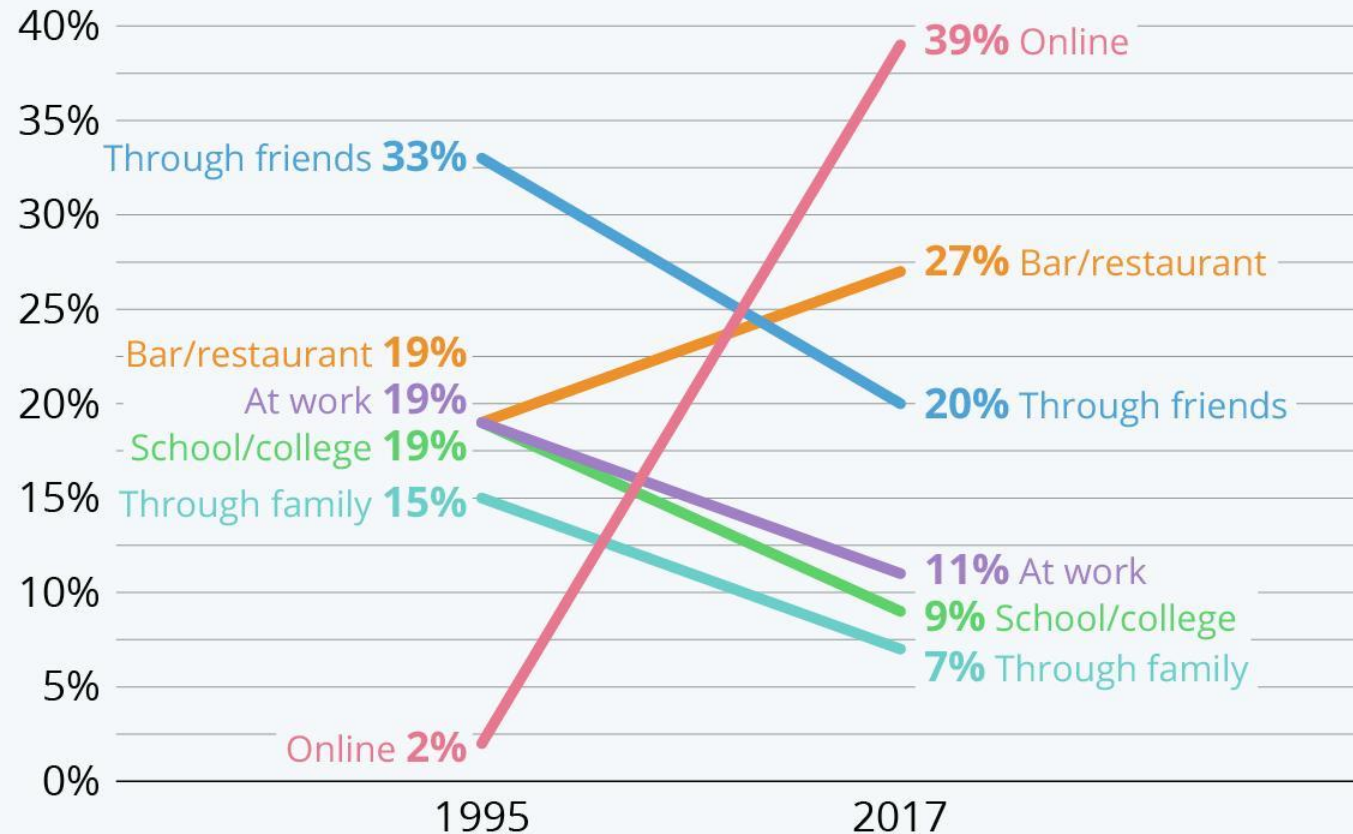
4.2 Tinder & Dating Apps

How does Tinder make money?



How Couples Met

Share of heterosexual U.S. couples who met in the following ways

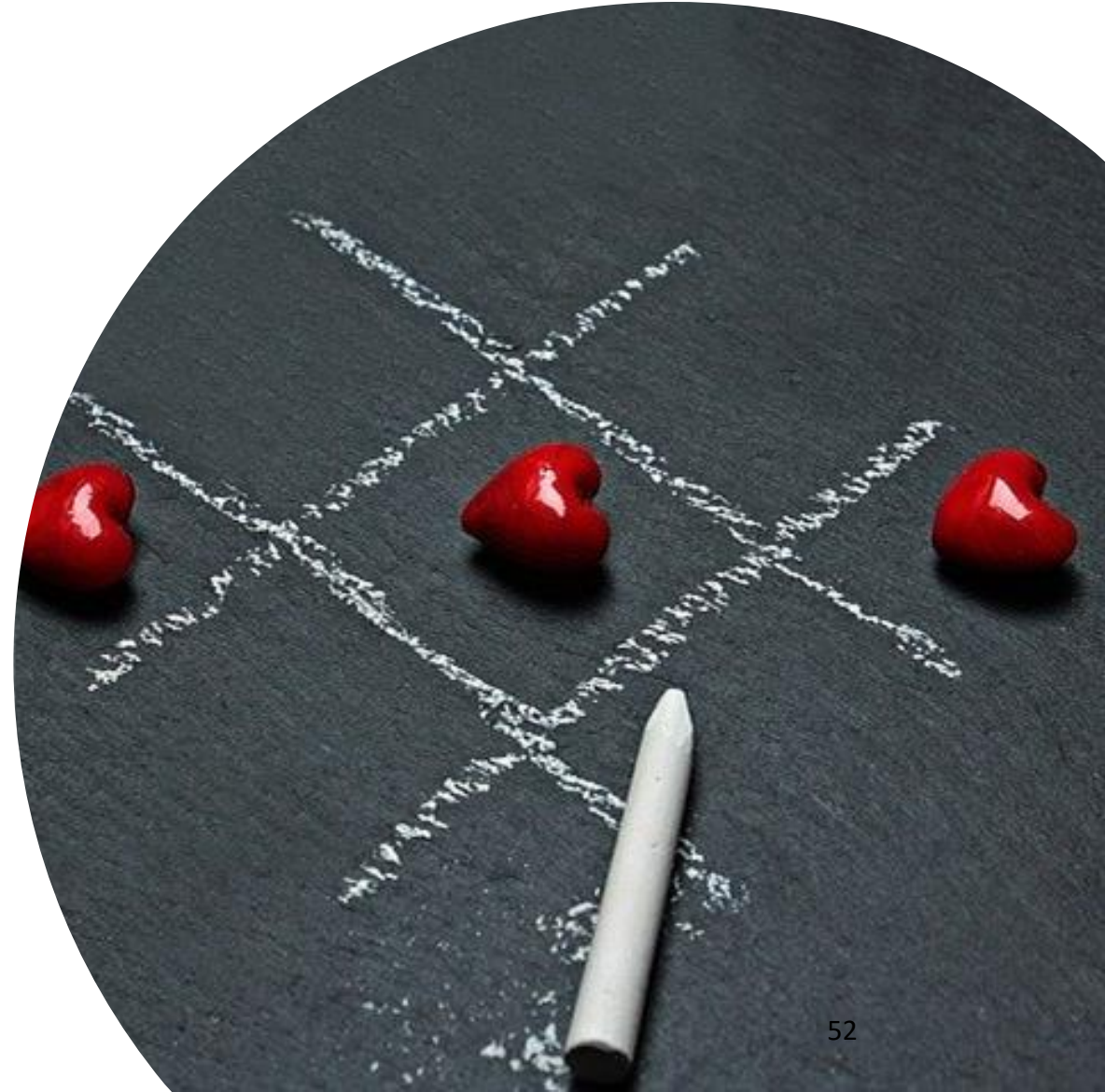


Survey of 5,421 adults. Other options: In church, in the neighborhood
Source: How Couples Meet and Stay Together surveys by Stanford University

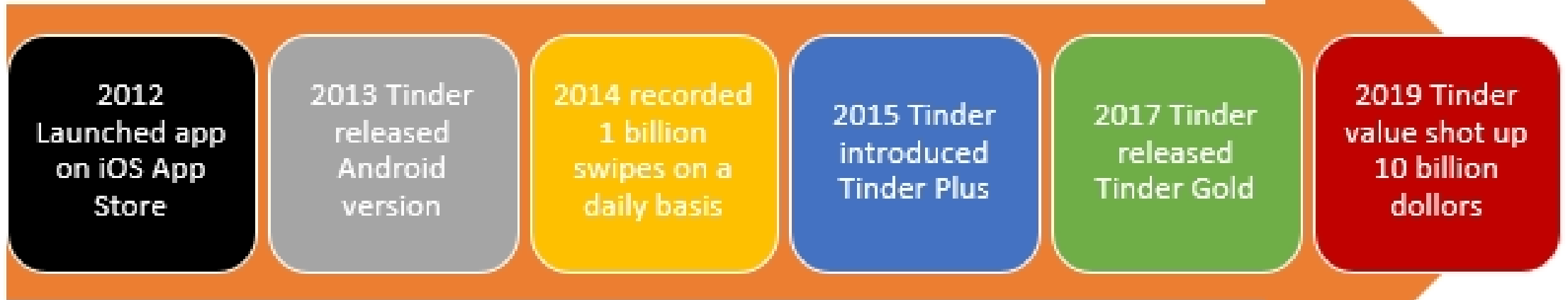


Playing & paying in the Tinder game

- The dating **game** = layered **markets**
- What do we pay?
 1. Erotic capital for swipes & dates
 2. Money for choice
 - “Cheating at the dating game”
 3. **Personal data** for access



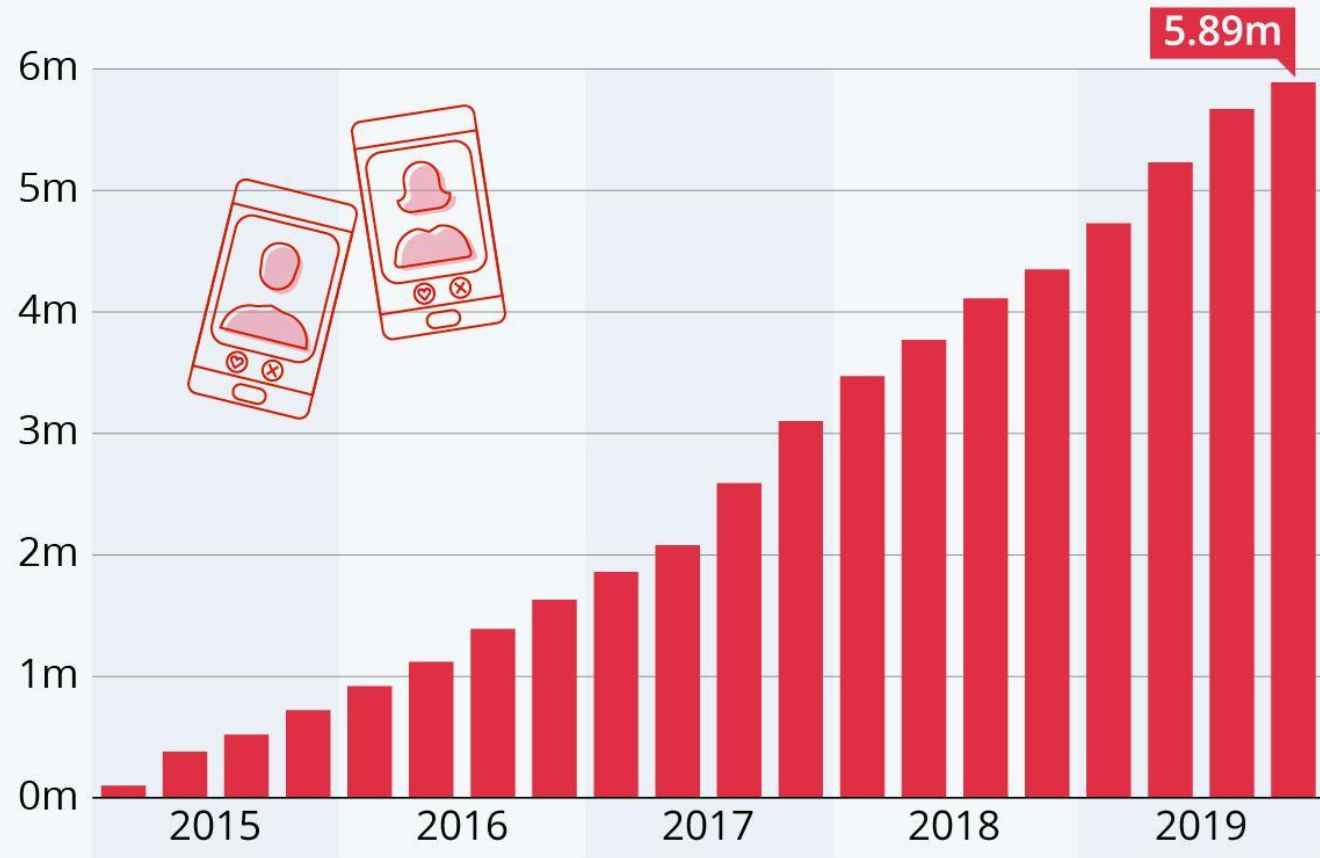
Paying for...



- Tinder Plus = the subscription model, including rewind, passport, and ad-free swiping
- Tinder Gold = Tinder Plus + See who Likes You before you Like or Nope. New Top Picks every day. Unlimited Likes. Rewind.

Cheating at the Dating Game

Worldwide paying subscribers of dating app Tinder*

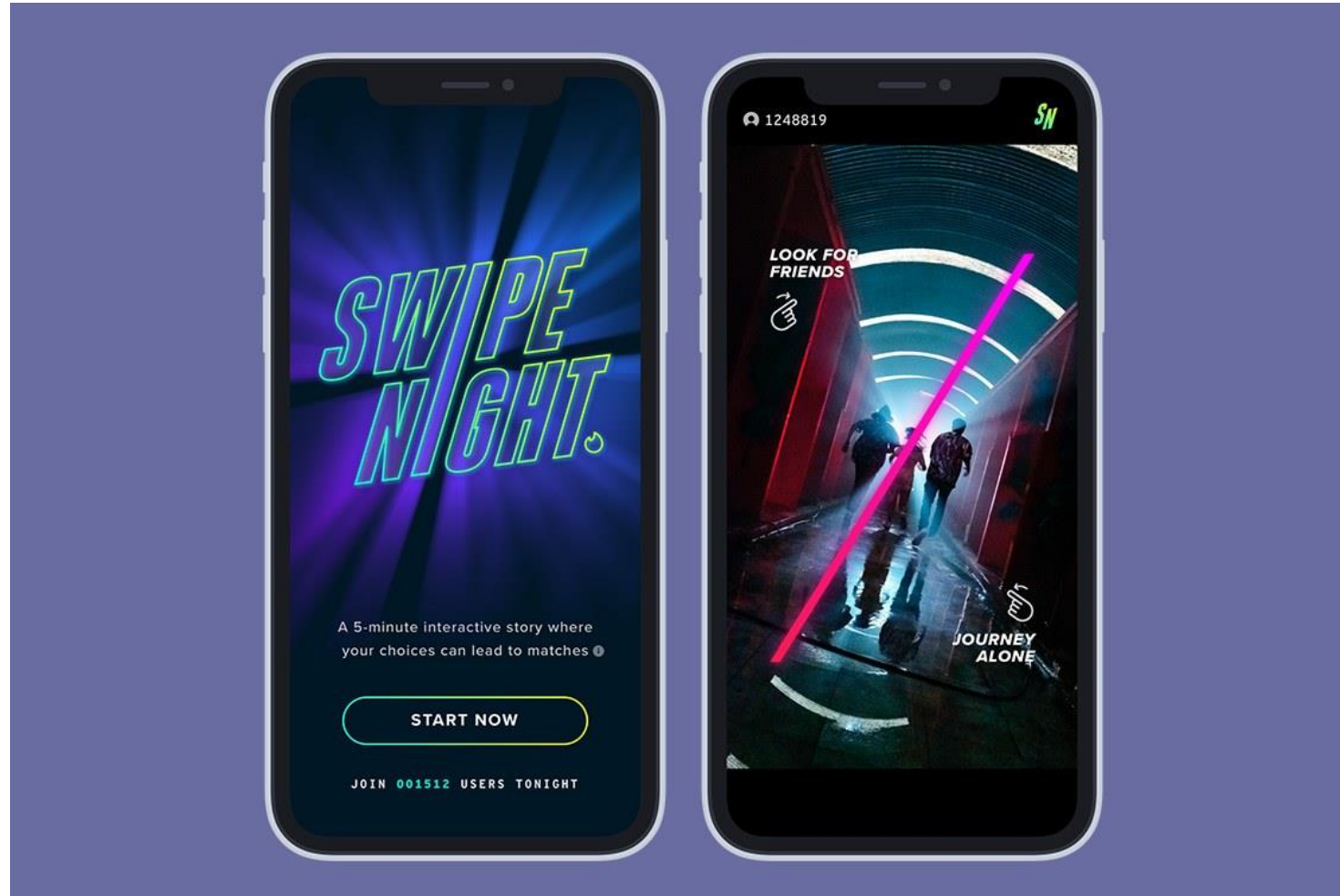


* figures represent quarterly averages

Source: Match Group



Data harvesting in Tinder



ARIELLE PARDES

CULTURE 09.24.2019 07:00 AM

Tinder Wants Users to Find Love in the Apocalypse

The dating app's new end-of-the-world, choose-your-own-adventure game, called Swipe Night, will generate new matches based on your choices.

Swipe Night episodes will take place each Sunday in October from 6 pm until midnight, when Tinder says it sees a surge in activity. Each one will last about five minutes and end with a fresh match queue. But you won't just be paired with your dystopian doppelgängers. "We'll look at the choices you've made and match you with a mix of people, some of whom have made the same choices, some of whom have made different choices," Mehta says. The new matching algorithm will be layered on top of preexisting filters, like preferences for age, gender, and location. (Alas, the person who may be your best match in the apocalypse may still be a few inches too short.)

TINDER BUSINESS MODEL

TINDER PLUS, MARCH 2015

Tinder Plus, premium model featured to allow unlimited matches.

The price of a Tinder Plus subscription was announced based on age group.

1. Users >28years charged \$19.99 per month.
2. Users <28years charged \$9.99 per month.

TINDER GOLD, JUNE 2017

Tinder Gold is an exclusive paid service which provides all the Tinder Plus features along with the new "Likes You" feature.

This experimental feature has currently been priced between \$14.99 to \$82.99 per month depending on age & location.

SPONSORED PROFILES

Various corporate and events have started partnering with Tinder to show their sponsored content in the form of profiles. This feature pricing starts from \$9.00 depending on the requirement & location.

BOOST

Boost increases the chances for a match for up to 10x more profile views and 3x more matches. This is a standalone feature having price range of \$1.99 to \$3.99 per boost.

Tinder's privacy policy: How we share your data

- **With other users**

You share information with other users when you voluntarily disclose information on the service (including your public profile). Please be careful with your information and make sure that the content you share is stuff that you're comfortable being publically viewable since neither you nor we can control what others do with your information once you share it.

If you choose to limit the audience for all or part of your profile or for certain content or information about you, then it will be visible according to your settings.

- **With our service providers and partners**

We use third parties to help us operate and improve our services. These third parties assist us with various tasks, including data hosting and maintenance, analytics, customer care, marketing, advertising, payment processing and security operations.

We may also share information with partners who distribute and assist us in advertising our services. For instance, we may share limited information on you in hashed, non-human readable form to advertising partners.

We follow a strict vetting process prior to engaging any service provider or working with any partner. All of our service providers and partners must agree to strict confidentiality obligations.

- **With other Match Group businesses**

Tinder is part of the Match Group family of businesses which, as of the date of this Privacy Policy, includes websites and apps such as Tinder, OkCupid, Plenty of Fish, Match, Meetic, BlackPeopleMeet, LoveScout24, OurTime, Pairs, ParPerfeito, and Twoo (for more details, click [here](#)).

Shady Data Brokers Are Selling Online Dating Profiles by the Millions

Tactical Tech and artist Joana Moll bought one million dating profiles for \$153.

SHARE

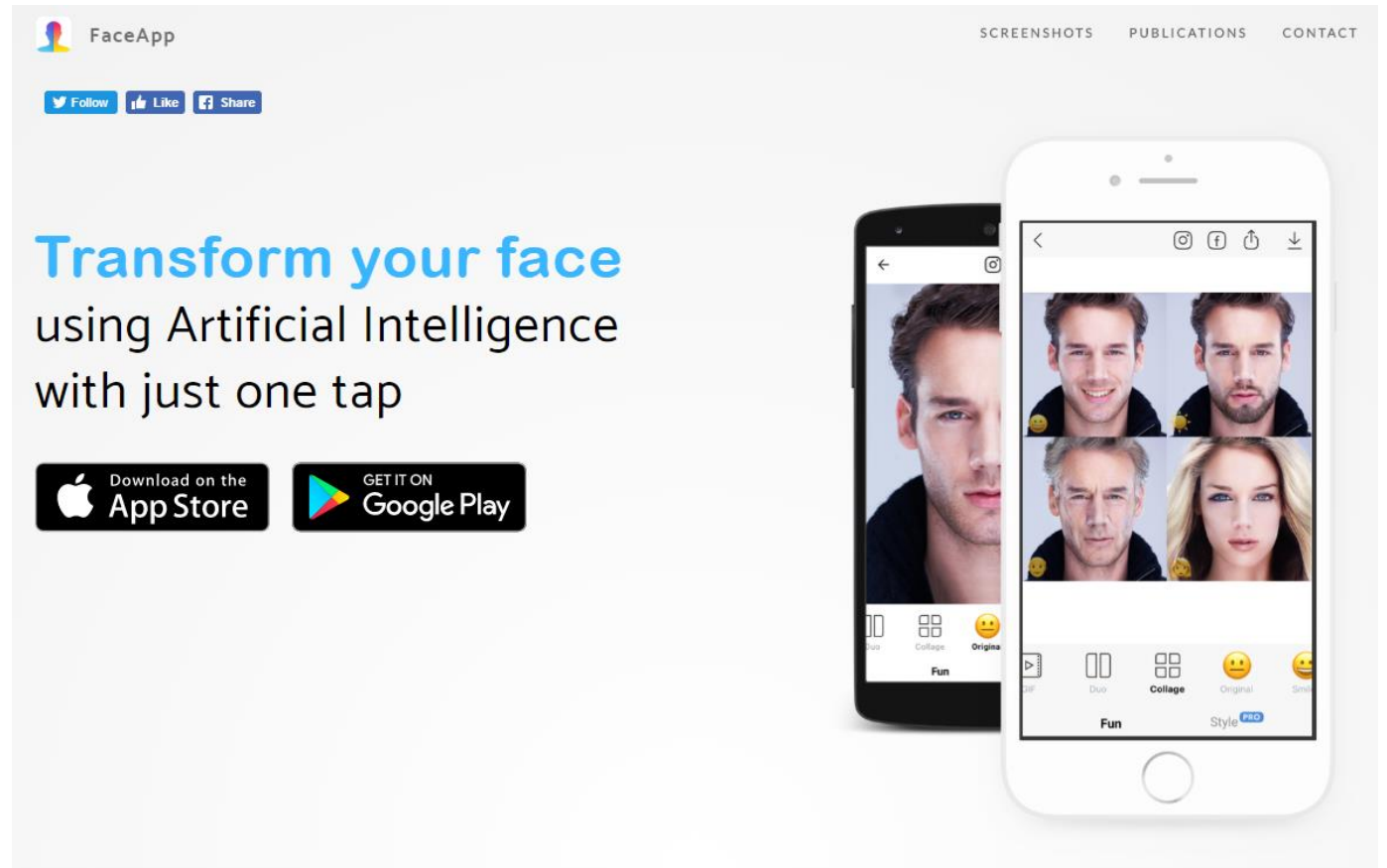


TWEET



4.4 FaceApp & just-for-fun apps

How does FaceApp make
money?



The screenshot displays the FaceApp website interface. At the top left is the FaceApp logo, and at the top right are navigation links for SCREENSHOTS, PUBLICATIONS, and CONTACT. Below the logo are social media interaction buttons for Follow, Like, and Share. The main headline reads "Transform your face using Artificial Intelligence with just one tap". Below this are two prominent buttons: "Download on the App Store" and "GET IT ON Google Play". On the right side, two smartphones are shown. The foreground smartphone displays a grid of four face transformation examples: a man's face with a beard, a man's face with a different beard style, an older man's face, and a woman's face. The background smartphone shows a similar interface with a single face transformation.

FaceApp business model

- “FaceApp utilises a premium subscription revenue model.
- Users who want pictures shorn of the FaceApp watermark, an ad-free experience, and access to handful of premium features can invest in a premium subscription.
- Users are able to pay \$3.99/month for premium usage. Keener users can part with \$20 for a year, or those who are convinced they’re going to get substantial mileage from the app for years to come can pay a one-off \$40 fee for lifetime access. (...)
- Forbes estimates that the app is making a minimum of \$4 million in annual revenue, using what it claims are conservative figures”

<https://www.businessofapps.com/data/faceapp-statistics/>

FaceApp Craze Reaches New Heights

Estimated worldwide FaceApp downloads by platform (as of July 21, 2019)



Base: Android = 54 countries, iOS = 55 countries

Source: Priori Data



3,314,532 views | Jul 17, 2019, 12:38pm

Viral App FaceApp Now Owns Access To More Than 150 Million People's Faces And Names



John Koetsier Contributor @
Consumer Tech

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f Everyone's seen them: friends posting pictures of themselves now, and years in the future.



in Viral app FaceApp has been giving people the power to change their facial expressions, looks, and now age for several years. But at the same time, people have been giving FaceApp the power to use their pictures — and names — for any purpose it wishes, for as long as it desires.



You grant FaceApp a perpetual, irrevocable, nonexclusive, royalty-free, worldwide, fully-paid, transferable sub-licensable license to use, reproduce, modify, adapt, publish, translate, create derivative works from, distribute, publicly perform and display your User Content and any name, username or likeness provided in connection with your User Content in all media formats and channels now known or later developed, without compensation to you. When you post or otherwise share User Content on or through our Services, you understand that your User Content and any associated information (such as your [username], location or profile photo) will be visible to the public.

FaceApp terms of use

Once something is uploaded to the cloud, you've lost control whether or not you've given away legal license to your content. That's one reason why privacy-sensitive Apple is doing most of its AI work [on-device](#).

And it's a good reason to be wary when any app wants access and a license to your digital content and/or identity.

As former Rackspace manager Rob La Gesse mentioned today:

To make FaceApp actually work, you have to give it permissions to access your photos - ALL of them. But it also gains access to Siri and Search Oh, and it has access to refreshing in the background - so even when you are not using it, it is using you.

Rob La Gesse

Key FaceApp Statistics

- 150 million lifetime FaceApp downloads as of July 2019
- 100 million Android FaceApp downloads as of July 2019
- 86 million FaceApp users have uploaded pictures to the app
- 12.7 million new FaceApp users downloaded the app in a single week in July 2019, according to Sensor Tower

M. Iqbal, FaceApp Revenue and Usage Statistics (2019)
<https://www.businessofapps.com/data/faceapp-statistics/>

4.5 DomiNations & mobile gaming

How does DomiNations make money?



Strategy, pay-to-win, or gambling?



“Battle nations from throughout history in DomiNations! Build your empire and command nations as you make them grow from a small village to a thriving metropolis, and battle as one of the great civilizations from the history of the world.

Build a nation, starting as an early settlement and grow through the ages, from the dawn of history to the modern era. Study under history’s greats at the University like Leonardo Da Vinci and Catherine the Great. Build Wonders of the World and create technology with historically accurate advancements.”

Take away – Course 7

1. Data, decision traces and surveillance capitalism
 - Manipulation and attractive apps are two sides of the same coin
 - Platform / surveillance capitalism stimulates information asymmetry
2. Ghost & Gig economy
 - Unfair distribution of rewards between market-makers and market-takers
 - Harm to workers
 - Autonomy vs. flexibility
 - Case study: Uber
3. Asymmetry: ethical issues in platform capitalism
 - Harm
 - Autonomy
4. Emerging business models: Follow the money! Follow the data!
 - Google, Tinder, FaceApp, DomiNations

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