How I (try to) stay private throughout the day?

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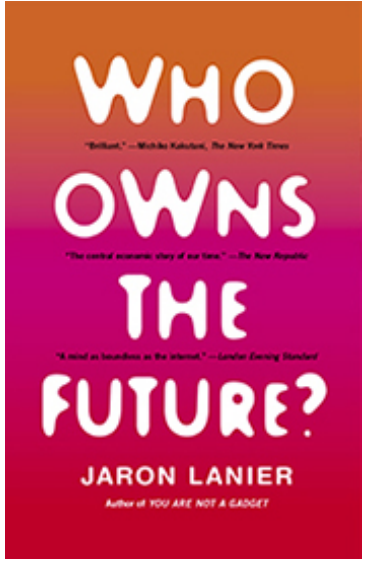
Disclaimer

- This (short) presentation is an awareness presentation with some personal examples
- It does NOT constitute recommendations or opinions from ANY organisation involved in this event

Privacy? Does anyone care?
Who wants my data?

Data is the world's most valuable resource,

according to The Economist



Jaron Lanier

Some of the wealthiest and most successful companies of all time

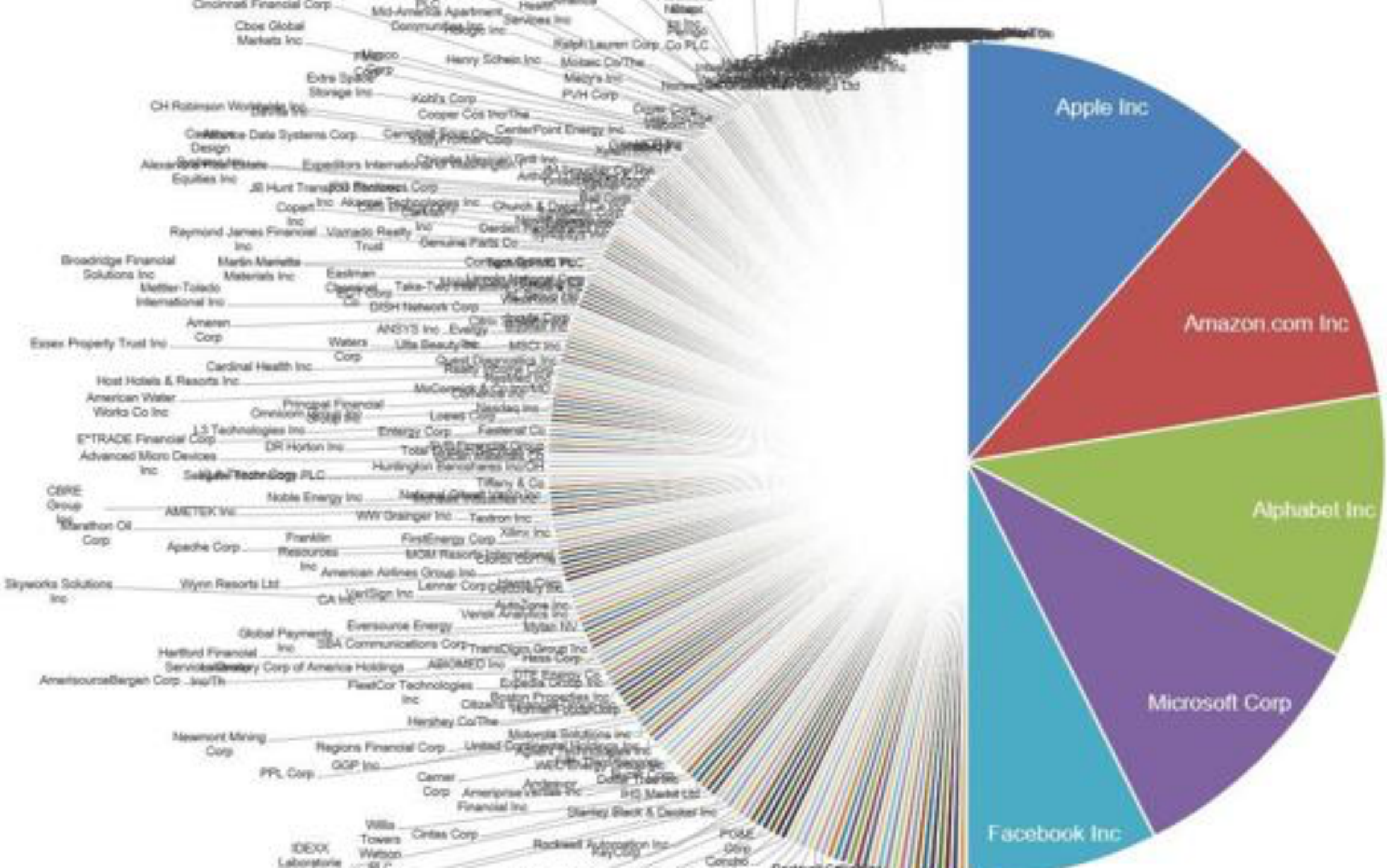
With relatively few employees, they just have this giant computer that rakes in money

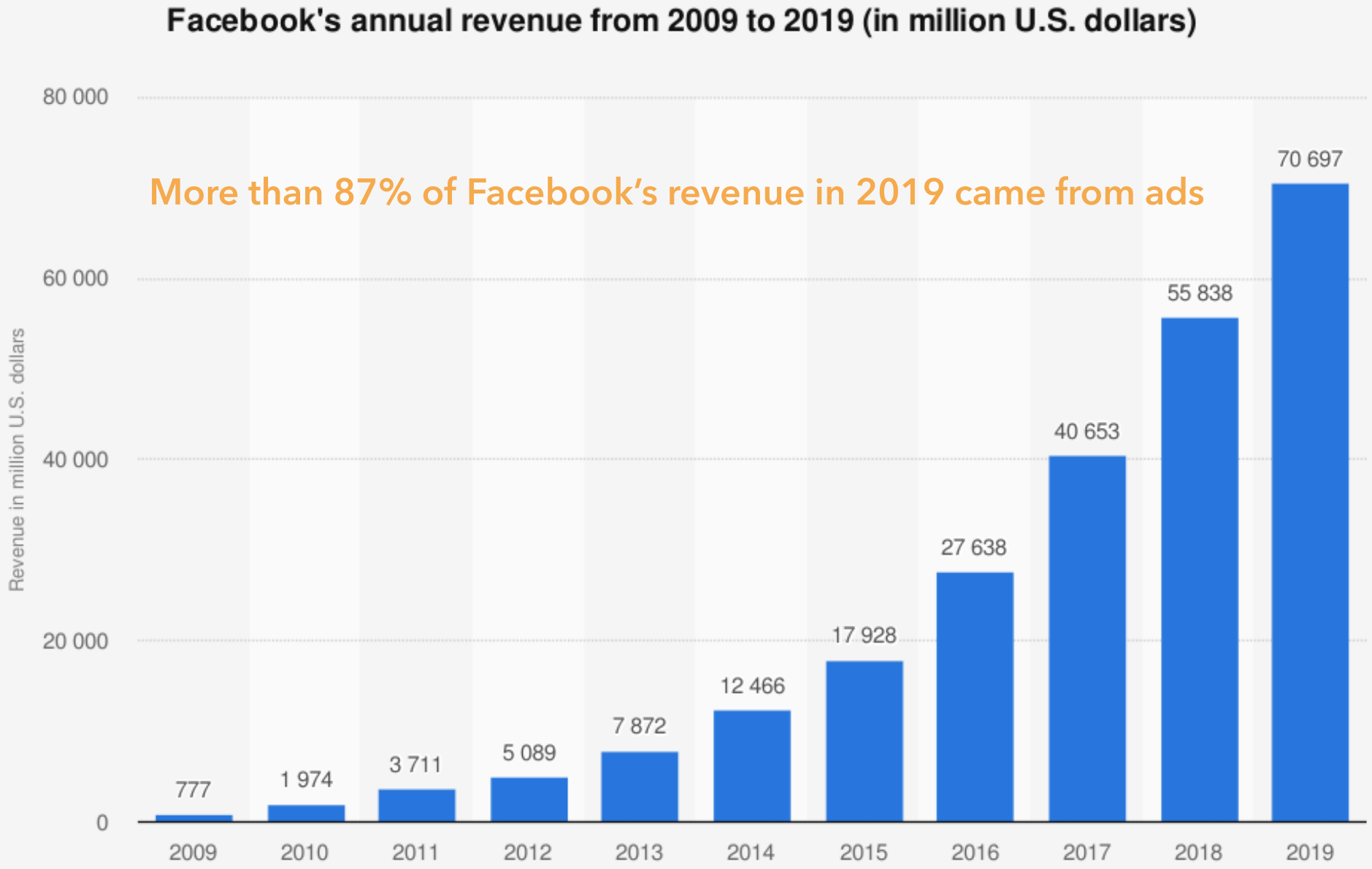
Now what are they being paid for?

Ads? Too simplistic

It's the gradual, slight, impercetable change in your own behavior and perception that is the product.

Changing what you do, how you think, who you are.


Apple Inc
Amazon.com Inc
Alphabet Inc
Microsoft Corp
Facebook Inc



Source
Facebook
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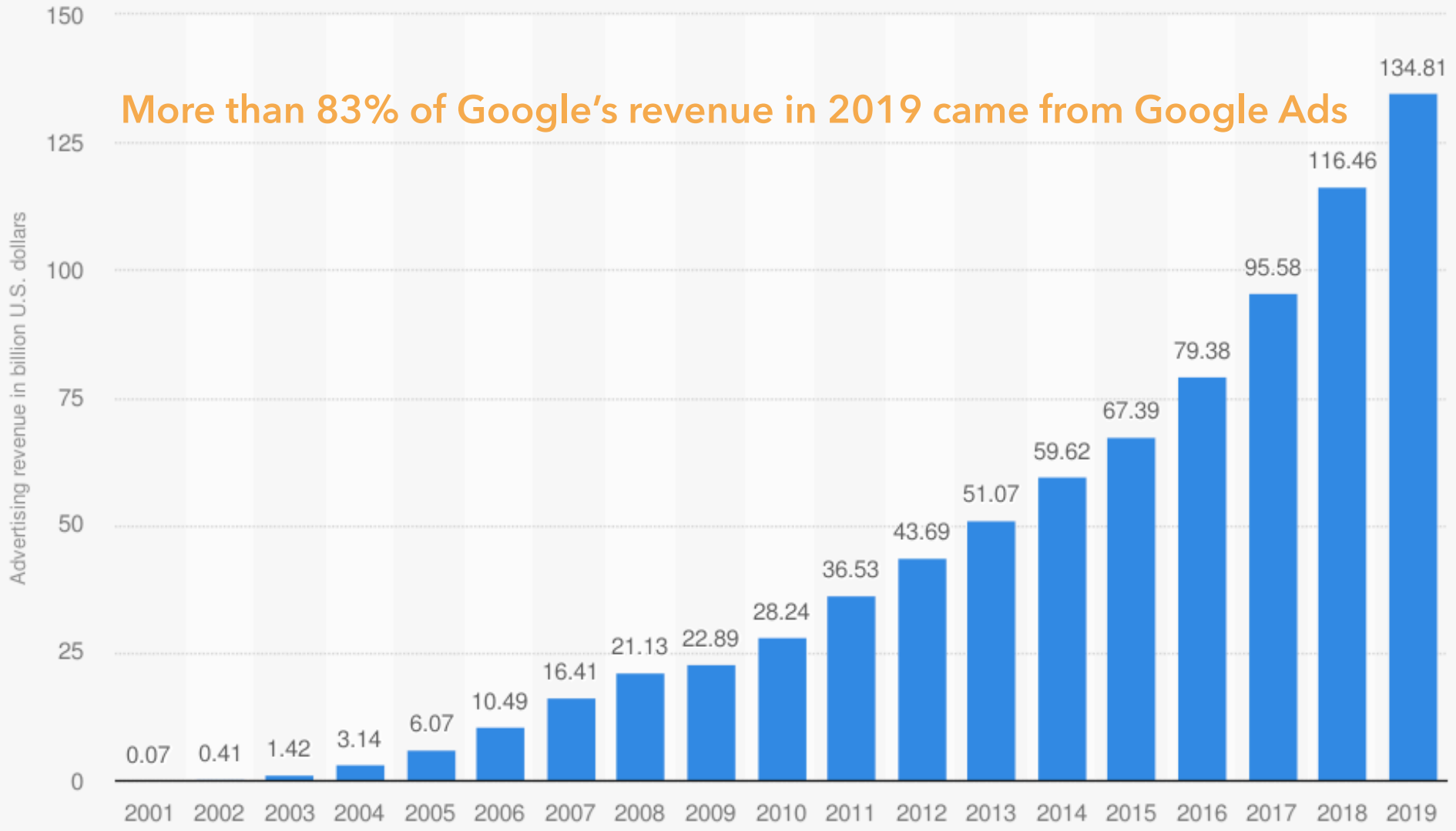
Additional Information:
Worldwide; 2009 to 2019

Advertising revenue of Google from 2001 to 2019 (in billion U.S. dollars)



Sources
Google; Alphabet
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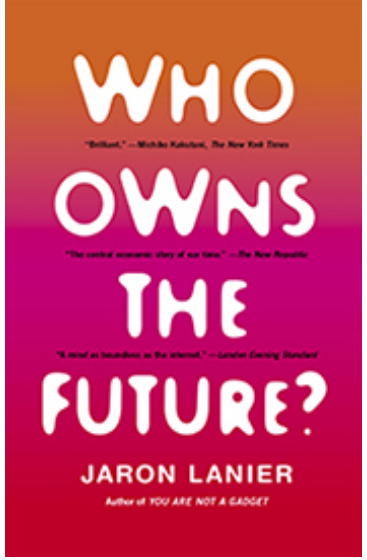
Additional Information:
Worldwide; Google; 2001 to 2019



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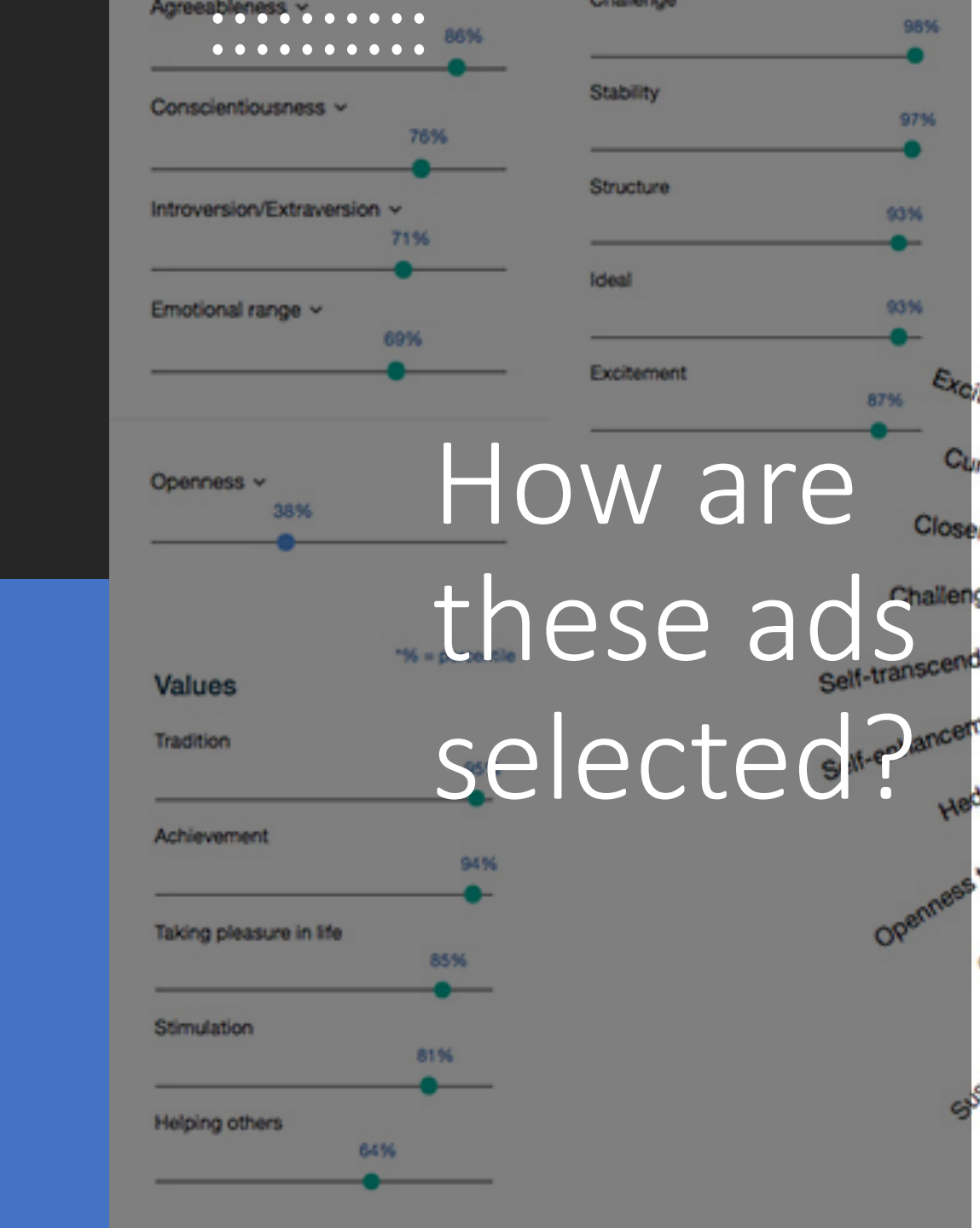
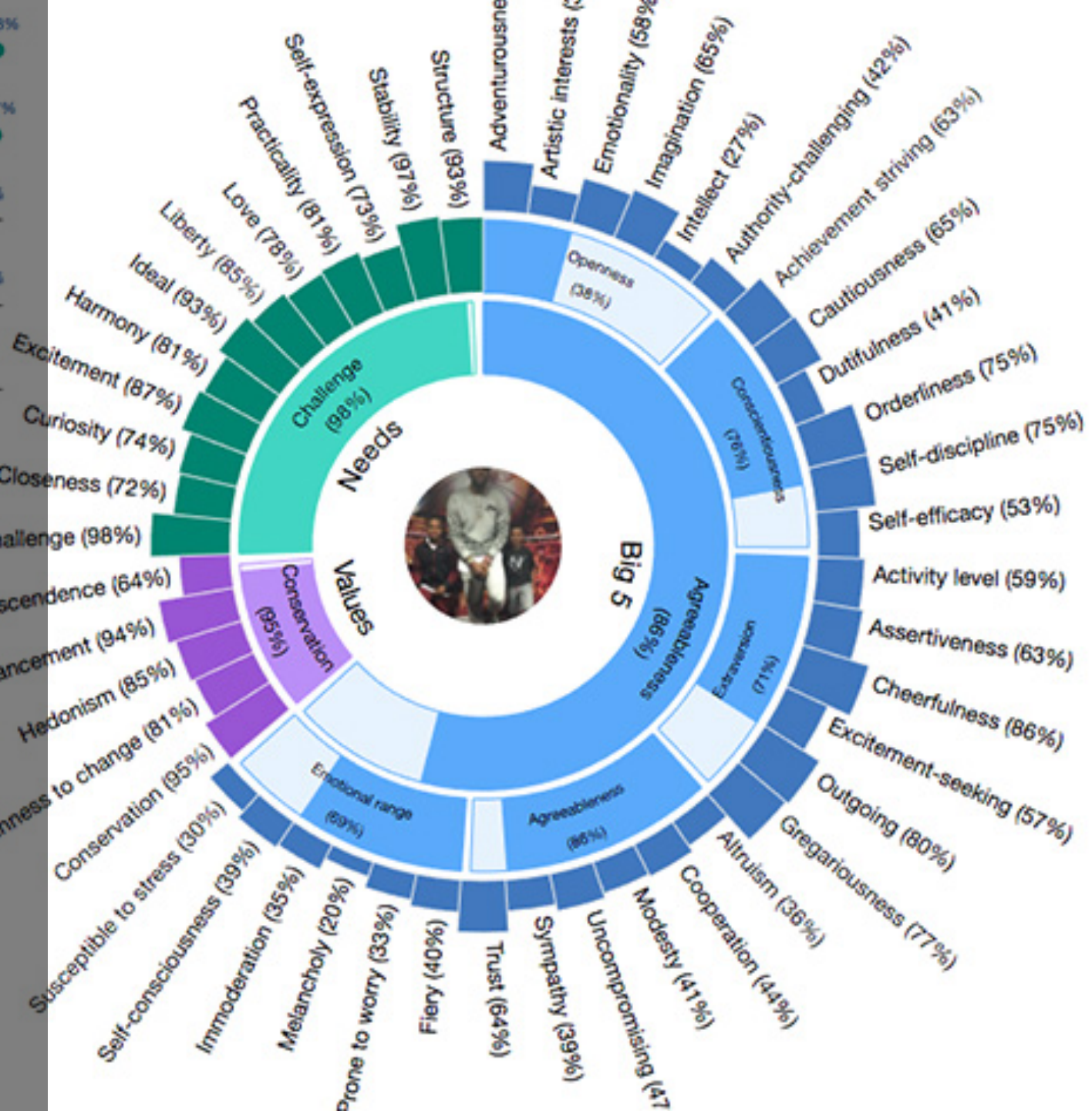


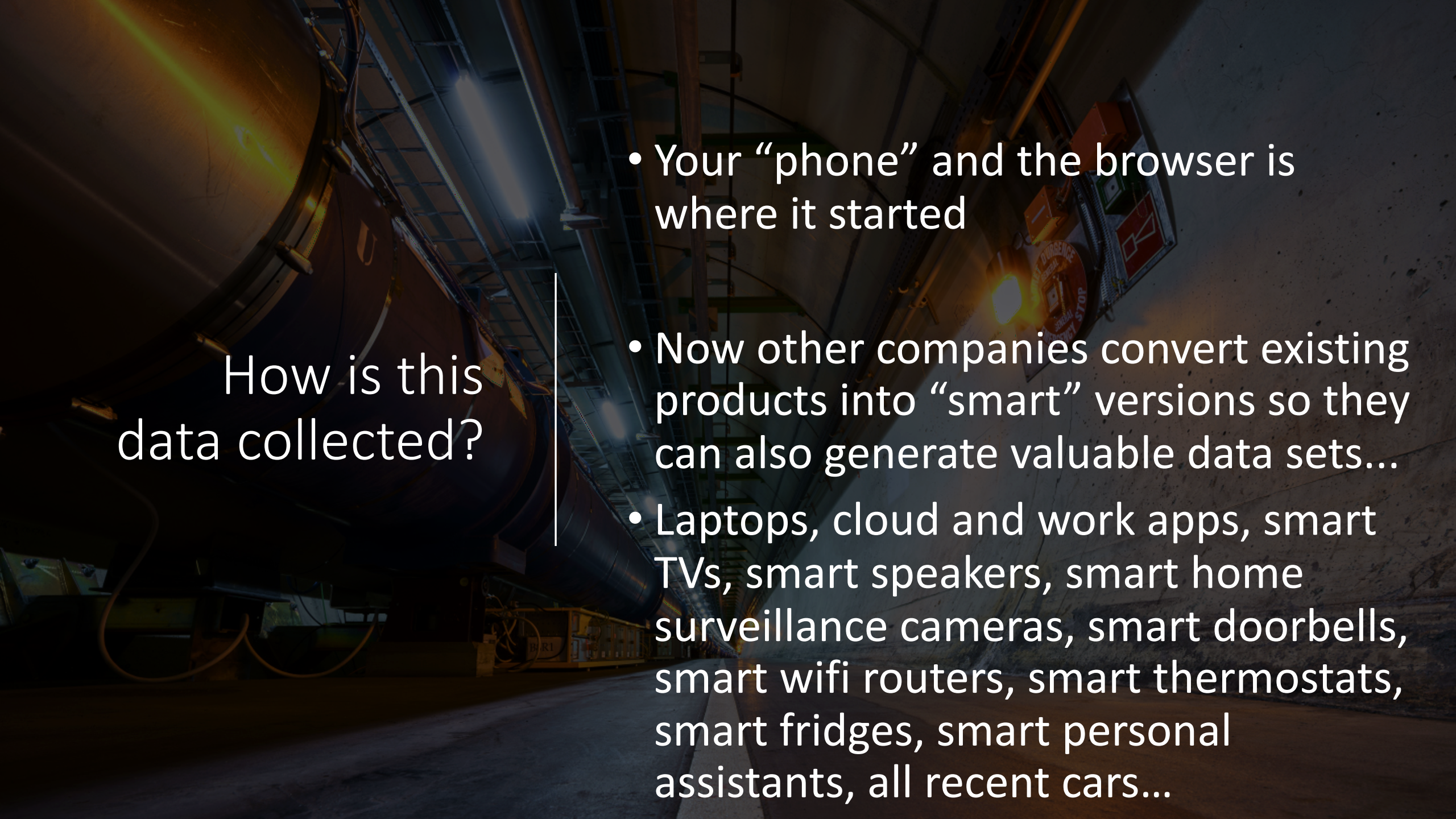
How are these ads selected?



How do they build a model of each of us?

You guessed it:

- Data
- Lots and lots and lots of personal data



How is this data collected?

- Your “phone” and the browser is where it started
- Now other companies convert existing products into “smart” versions so they can also generate valuable data sets...
- Laptops, cloud and work apps, smart TVs, smart speakers, smart home surveillance cameras, smart doorbells, smart wifi routers, smart thermostats, smart fridges, smart personal assistants, all recent cars...

From data to ads to profits

- Get you to spend as much time as you can on your “phone”!
- How to get you on your phone constantly?
- Once that’s achieved, introduce very targeted ads during all those long hours you spend with your phone
- “Changing what you do, how you think, who you are.”

“Interlude”

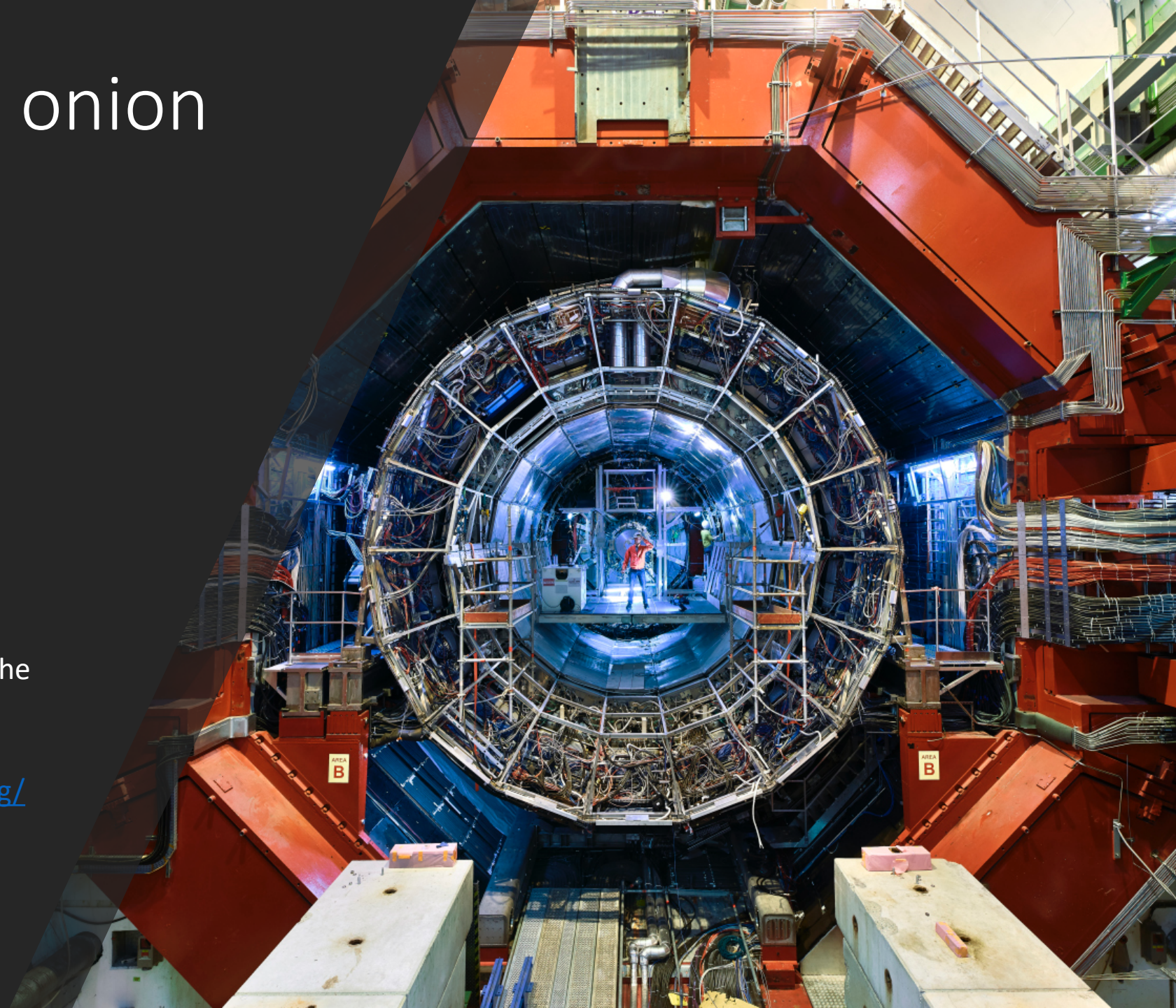
- This is not to bash on these companies or their products
- They have great engineers making great products
- They provide a valuable service (otherwise it wouldn’t be used)
- The dominating business model (selling users to the clients) has a flip side
- More people now worry on the impact this has
- Change can happen

How I **tried** to be more private (easy steps)

- Browser
- Search engine
- Instant Messaging
- E-mail
- Navigation
- Whenever I get asked by apps for premission to use my data: say NO

Browser & The onion router (TOR)

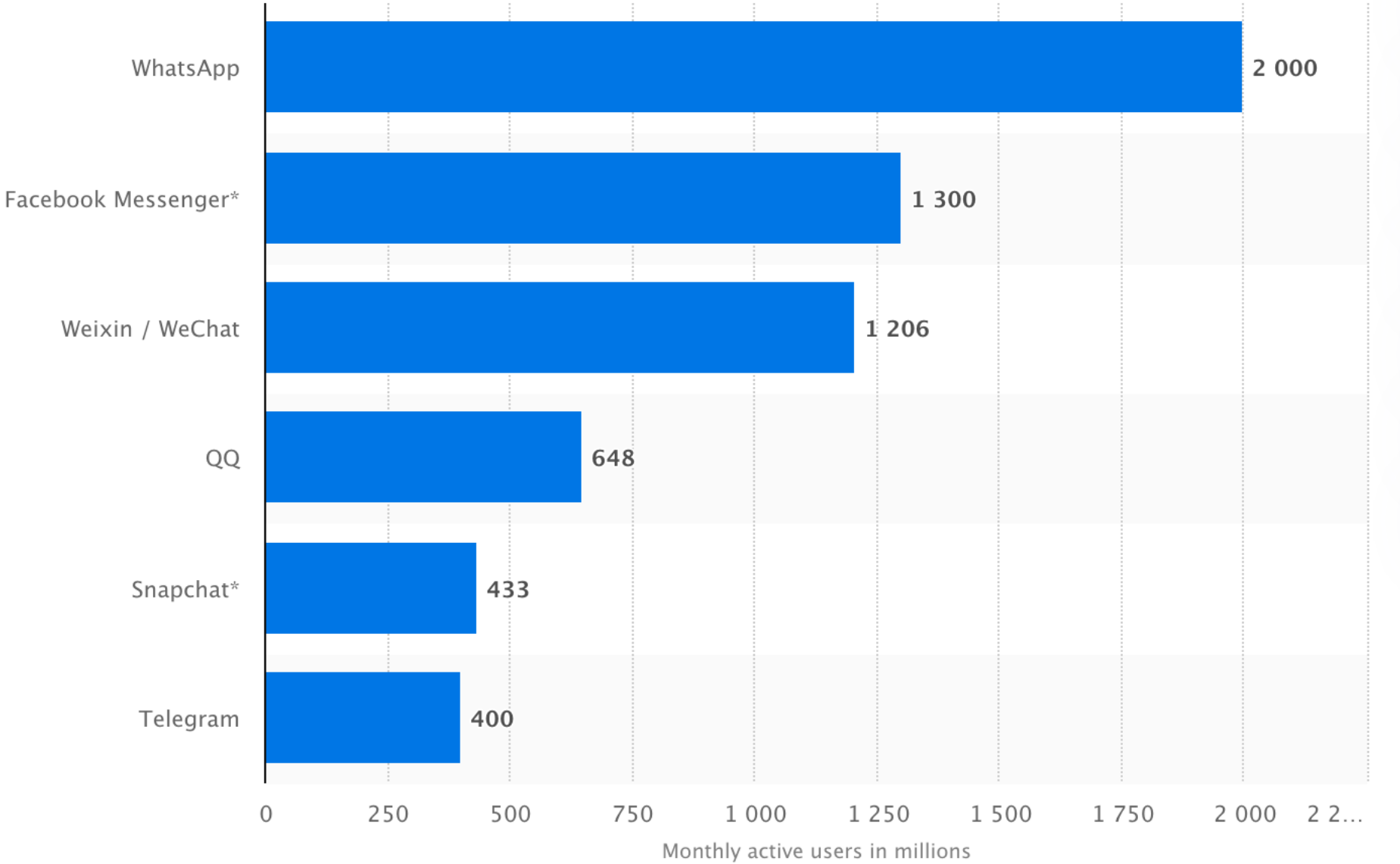
- Modern browsers allow you to be
  - tracked across the web
    - cookies,
    - CDNs,
    - CAPTCHA,
    - social network buttons,
    - social logins,
    - fingerprinting
  - track actions you take inside the browser
  - https://clickclickclick.click
  - https://coveryourtracks.eff.org/



Browser & The onion router (TOR)

- Started using only Firefox and sometimes Brave (Chrome based)
- Enabled Plugins to prevent general tracking across the web:
  - uBlock Origin
  - Privacy Badger (EFF)
  - NoScript
  - LocalCDN
- No third-party cookies for me
- Turn on DNS-over-HTTPS if you distrust your local network; ToR might also be useful

Search Engine


WhatsApp
2 000
Facebook Messenger*
1 300
Weixin / WeChat
1 206
QQ
648
Snapchat*
433
Telegram
400
0
250
500
750
1 000
1 250
1 500
1 750
2 000
2 2...
Monthly active users in millions

© Statista

Instant Messaging

Signal
'Data Linked To You'

iMessage
'Data Linked To You'

- Contact Info
  - Email Address
  - Phone Number
- Search History
- Identifiers
  - Device ID

WhatsApp
'Data Linked To You'

Analytics
- Purchases
  - Purchase History
- Location
  - Coarse Location
- Contact Info
  - Phone Number
- User Content
  - Other User Content
- Identifiers
  - User ID
  - Device ID
- Usage Data
  - Product Interaction
  - Advertising Data
- Diagnostics
  - Crash Data
  - Performance Data
  - Other Diagnostic Data

App Functionality
- Purchases
  - Purchase History
- Financial Info
  - Payment Info
- Location
  - Coarse Location
- Contact Info
  - Email Address
  - Phone Number
- Contacts
  - Contacts
- User Content
  - Customer Support
  - Other User Content
- Identifiers
  - User ID
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Facebook Messenger
'Data Linked To You'

Third-Party Advertising
- Purchases
  - Purchase History
- Financial Info
  - Other Financial Info
- Location
  - Precise Location
  - Coarse Location
- Contact Info
  - Physical Address
  - Email Address
  - Name
  - Phone Number
  - Other User Contact Info
- Contacts
  - Contacts
- User Content
  - Photos or Videos
  - Gameplay Content
  - Other User Content
- Search History
  - Search History
- Browsing History
  - Browsing History
- Identifiers
  - User ID
  - Device ID
- Usage Data
  - Product Interaction
  - Advertising Data
  - Other Usage Data
- Diagnostics
  - Crash Data
  - Performance Data
  - Other Diagnostic Data
- Other Data
  - Other Data Types

Analytics
- Health & Fitness
  - Health
  - Fitness
- Purchases
  - Purchase History
- Financial Info
  - Payment Info
  - Other Financial Info
- Location
  - Precise Location
  - Coarse Location
- Contact Info
  - Physical Address
  - Email Address
  - Name
  - Phone Number
  - Other User Contact Info
- Contacts
  - Contacts
- User Content
  - Photos or Videos
  - Audio Data
  - Gameplay Content
  - Customer Support
  - Other User Content
- Search History
  - Search History
- Browsing History
  - Browsing History
- Identifiers
  - User ID
  - Device ID
- Usage Data
  - Product Interaction
  - Advertising Data
  - Other Usage Data
- Sensitive Info
  - Sensitive Info
- Diagnostics
  - Crash Data
  - Performance Data
  - Other Diagnostic Data
- Other Data
  - Other Data Types

Product Personalisation
- Purchases
  - Purchase History
- Financial Info
  - Other Financial Info
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App Functionality
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  - Fitness
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Other Purposes
- Purchases
  - Purchase History
- Financial Info
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- Location
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E-mail

- Got an encrypted mail provider
  - Protonmail
  - Tutanova
  - …
- I don’t link digital accounts together
  - don’t ”login with…” in different apps or services
- If you can, use one email alias per account
  - Use a password manager to keep each accounts’ password

Navigation with maps

- OsmAnd
- Maps.me

Some Final Thoughts, going further…

- Interoperability
- Usability and Privacy don‘t exclude each other
- Cloud products