

BENEFITS AND DRAWBACKS OF THE BIGDATA ERA

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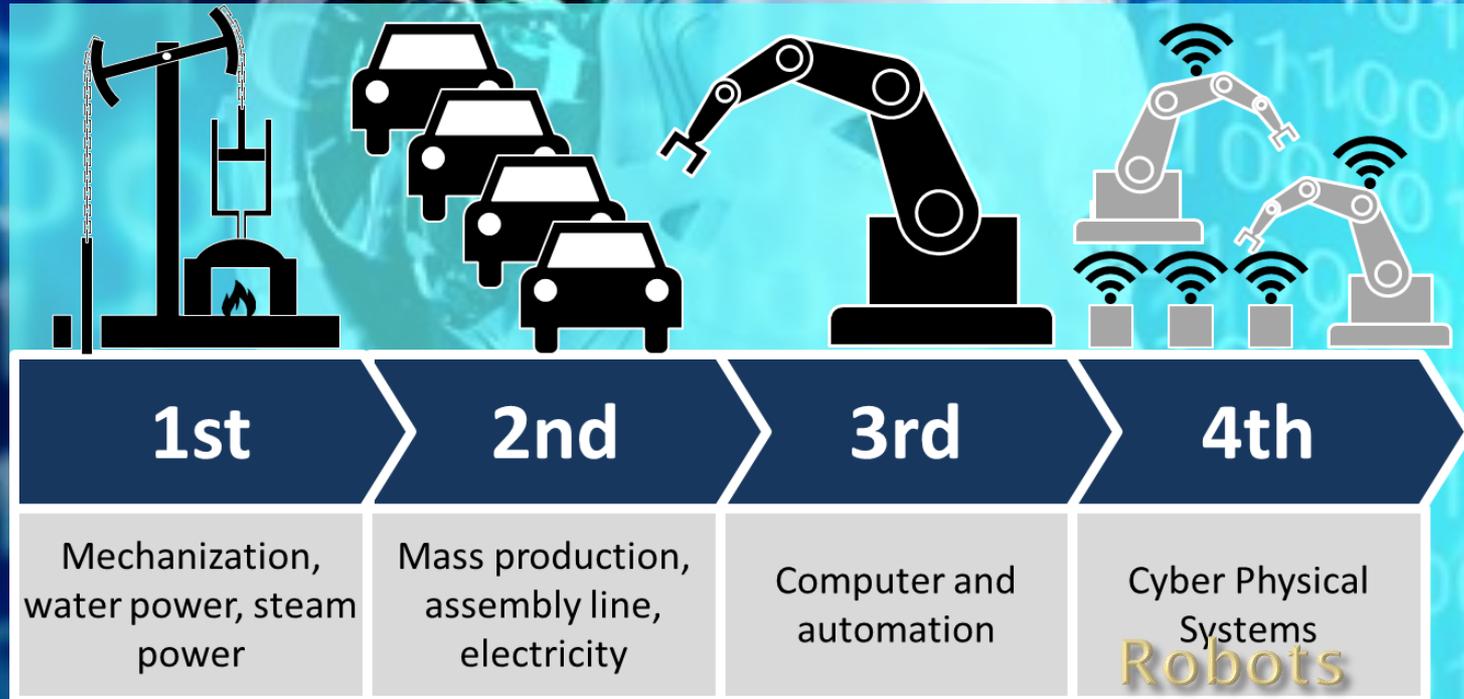
**LATVIJAS
UNIVERSITĀTE**
ANNO 1919



LETA

nacionālā informācijas aģentūra

AI&Data: 4th Industrial Revolution



- Speech
- Translation
- Computer vision
- Autonomous driving
- MicroTargeted advertising



Private Data → Big Data

1996 WWW

1998 Google search

2000 CreditCards, LoyaltyCards

2004 Gmail, FaceBook

2008 SmartPhone ar, GPS

2010 Cloud Storage (personal data)

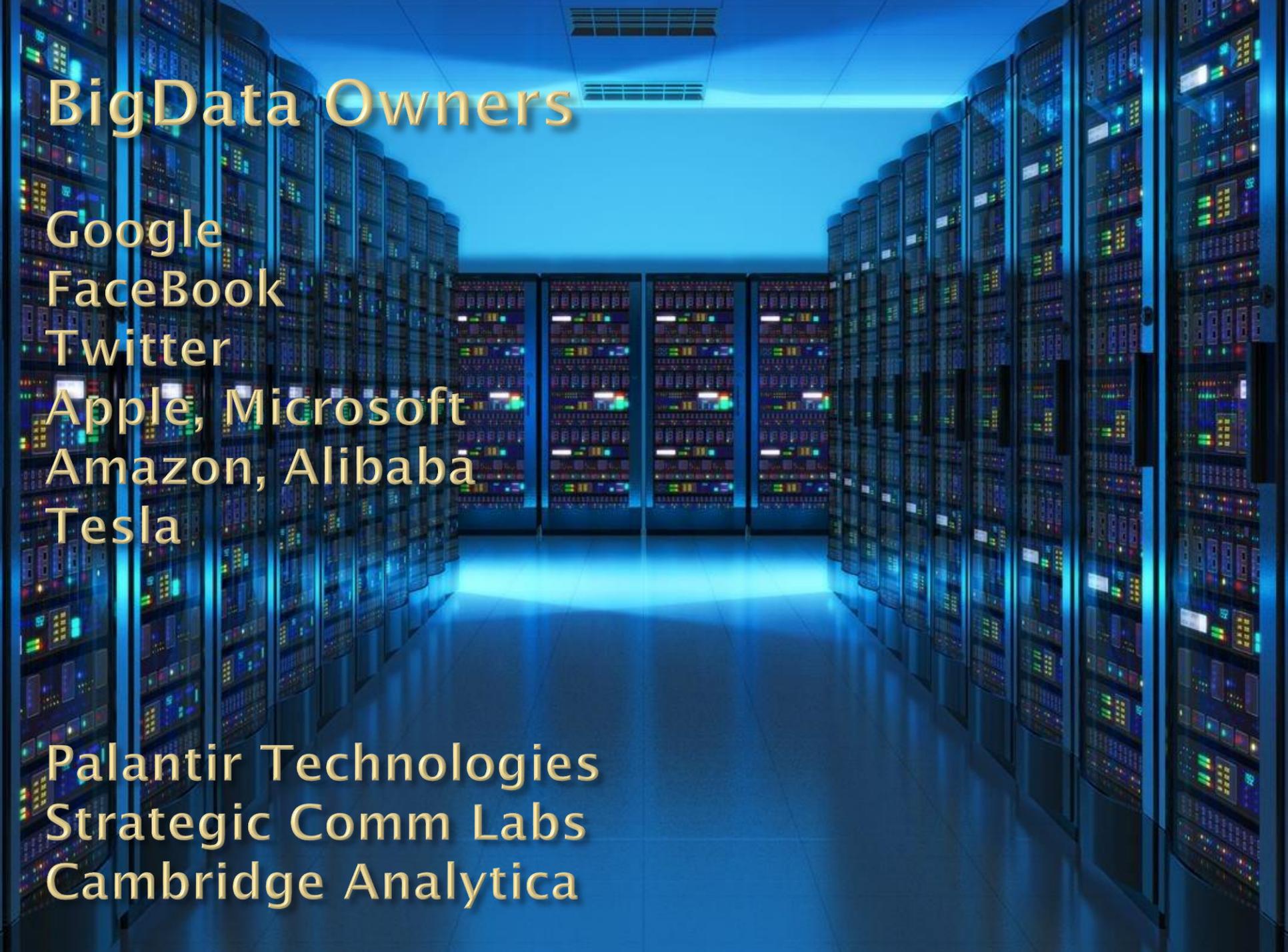
2012 Messaging Apps

2015 State sponsored hacking

2016 Tesla autopilot

2017 Internet of Things



A photograph of a server room with rows of server racks. The room is dimly lit with a strong blue glow emanating from the racks and the floor. The racks are filled with various electronic components and lights.

BigData Owners

Google

FaceBook

Twitter

Apple, Microsoft

Amazon, Alibaba

Tesla

Palantir Technologies

Strategic Comm Labs

Cambridge Analytica

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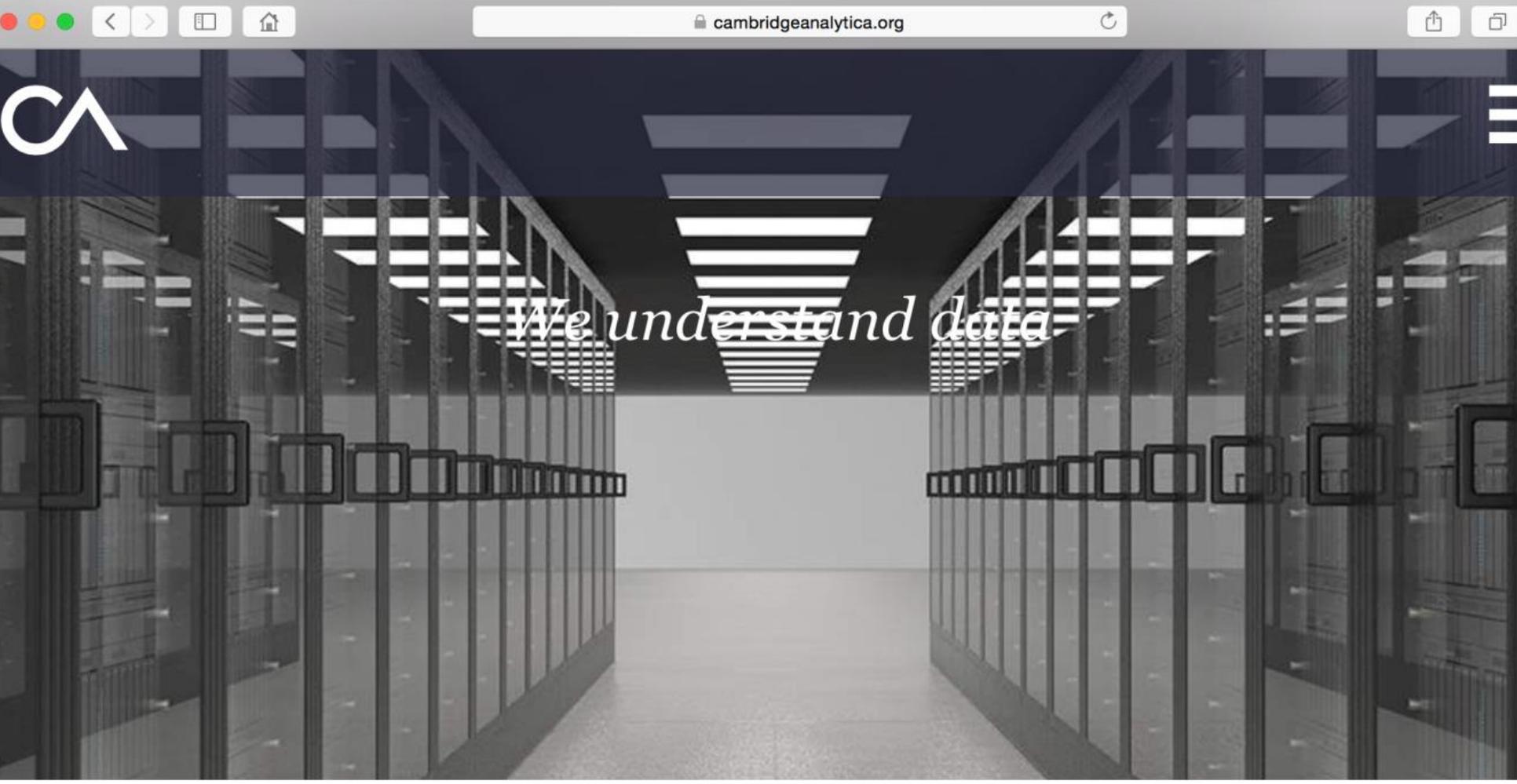
DeepLearning



Data Products

Search, MT, ASR
Social network
Suggestions
UserData in Cloud
Product relations
Autopilot

Mass Surveillance
Hybrid Warfare
O.C.E.A.N.



We understand data

5,000 data points per person

We collect up to 5,000 data points on over 220 million Americans, and use more than 100 data variables to model target audience groups and predict the behavior of like-minded people.

O.C.E.A.N. in Action



...This wasn't a completely raw startup. Kushner's crew was able to tap into the Republican National Committee's data machine, and it hired targeting partners like Cambridge Analytica to map voter universes and identify which parts of the Trump platform mattered most: trade, immigration or change. ... Kushner built a custom geo-location tool that plotted the location density of about 20 voter types over a live Google Maps interface.

Microtargeting



Democratic campaign 2012 (BigData)
+
Psychometrics on FB (Michal Kosinski)
+
Republican donor (Robert Mercer)
=
Successful Republican campaign 2016

O.C.E.A.N. Psychometrics Test

1. I have a vivid imagination
2. I believe in the importance of art
3. I seldom feel blue
4. I have a sharp tongue
5. I am not interested in abstract ideas
6. I find it difficult to get down to work

7. I panic easily

8. I tend to vote for liberal political candidates
9. I am not easily bothered by things
10. I make friends easily
11. I often feel blue
12. I get chores done right away
13. I suspect hidden motives in others
14. I rarely get irritated
15. I do not like art
16. I dislike myself
17. I keep in the background
18. I do just enough work to get by
19. I am always prepared
20. I tend to vote for conservative political candidates
21. I feel comfortable with myself
22. I avoid philosophical discussions
23. I waste my time
24. I believe that others have good intentions
25. I am very pleased with myself
26. I have little to say
27. I feel comfortable around people
28. I am often down in the dumps
29. I do not enjoy going to art museums
30. I have frequent mood swings
31. I don't like to draw attention to myself
32. I insult people
33. I have a good word for everyone
34. I get back at others
35. I carry out my plans
36. I would describe my experiences as somewhat dull
37. I carry the conversation to a higher level
38. I don't see things through
39. I am skilled in handling social situations
40. I respect others
41. I pay attention to details
42. I am the life of the party
43. I enjoy hearing new ideas
44. I accept people as they are
45. I don't talk a lot
46. I criticize others' shortcomings
47. I make plans and stick to them
48. I know how to captivate people
49. I make people feel at ease
50. I shirk my duties



Strongly
Disagree

Neutral

Strongly
Agree

References

1. Goldberg, L. R. (1999). A broad-bandwidth, public domain, personality inventory measuring the lowerlevel facets of several five-factor models. In I. Mervielde, I. Deary, F. De Fruyt, & F. Ostendorf (Eds.), *Personality Psychology in Europe*, 7: 7-28. Tilburg, The Netherlands: Tilburg University Press
2. Diener, E. D., et al. (1985) "The satisfaction with life scale." *Journal of personality assessment* 49.1: 71-75.

High

Big Five

Average

Low



O C E A N

High in Openness ▲

Your score in Openness is high, which indicates that you enjoy novelty, variety, and change. You are curious, imaginative and creative.

Average in Agreeableness ▶

Your level of Agreeableness is average, indicating some concern with others' needs, but generally you are unwilling to put yourself out for strangers.

Low in Conscientiousness ▶

Your score in Conscientiousness is low, which indicates that you like to live for the moment and do what feels good now. Sometimes you appear disorganized to others but they love your

Low in Extraversion ▲

Your score in Extraversion is low, indicating that you are introverted, reserved, and quiet. You enjoy solitude and solitary activities. You enjoy socializing with a few close friends rather than large

High in Neuroticism ▲

Your score in Neuroticism is high, indicating that you can be agitated by what some people would consider to be routine daily life. People see you as emotionally aware.

Our psychologist says

You're a Philosopher

What Your Result Means

You are strong-minded, but always consider different viewpoints when problem solving. Ultimately you trust your own judgment above other peoples' views.

Sometimes wary of others, you are a very private person who tends to distant themselves from certain situations.

You enjoy a challenge, but prefer to work independently and favor solitary pursuits.

Prone to losing control of your emotions, you tend to be particularly passionate in situations concerning your social and personal life.

You have an imaginative and creative side, tending to avoid social situations that may cause interpersonal conflicts.

Cambridge Analytica Data sources on 220 million Americans



DATASCIENCE

What is Big Data?



Demographics/Geographics (Factual)

Age
Gender
Ethnicity
Religion
Education
Income
Home-owner
Socio-economic status
Geographic factors

'Psychographics' (Attitudinal)

Advertising Resonance
Automotive Data
Consumer Data
Consumer Confidence - Economy / Business
Lifestyle Data
Buying Styles/Patterns
Civic / Political Engagement Segments
Cellular / Mobil Opinions

Personality (Behavioral)

Psychology

- Openness
- Conscientiousness
- Extraversion
- Agreeableness
- Neuroticism

Persuasion

- Reciprocity
- Scarcity
- Authority
- Fear
- Social Proof



acxiom

nielsen

datatrust



infogroup



2

ARISTOTLE
TELL YOU KNOW™

Experian

GOP

facebook

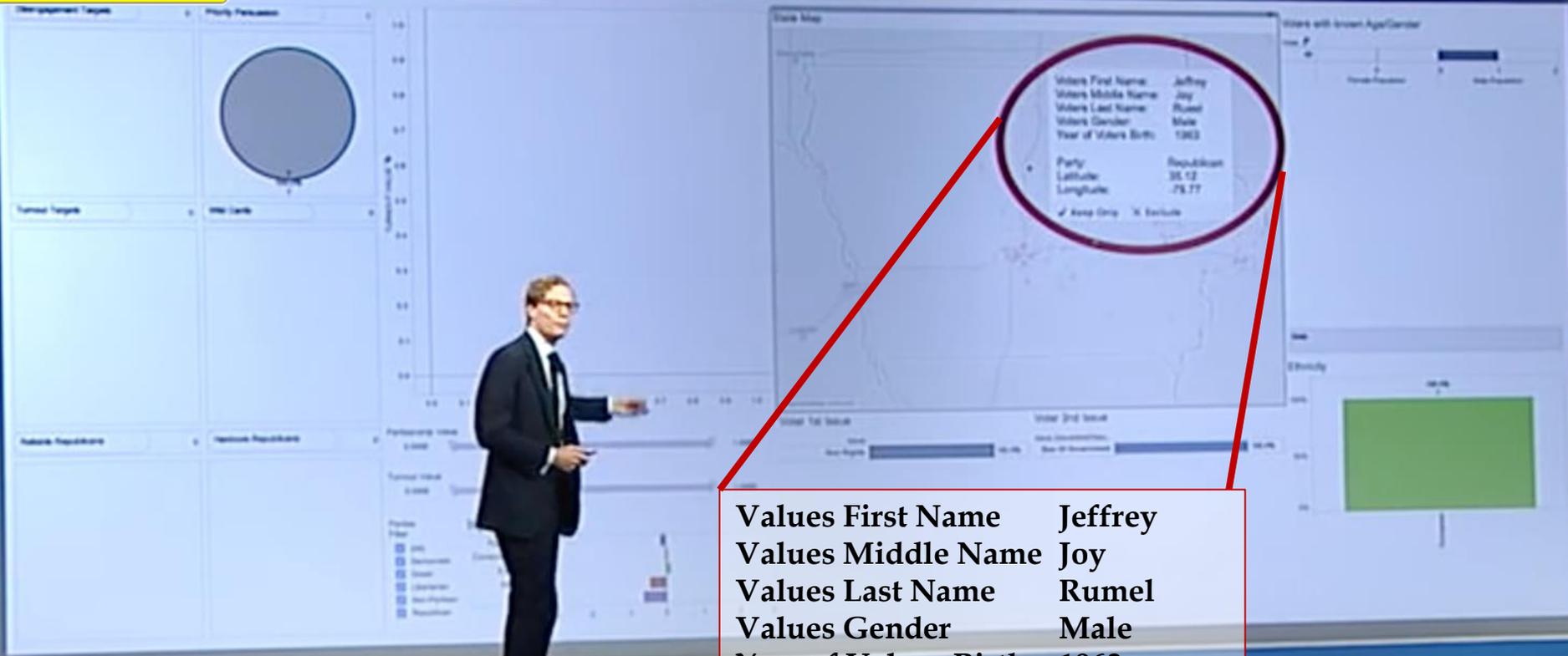


CA

Cambridge Analytica Data sources on 220 million Americans



DATASCIENCE



Values First Name	Jeffrey
Values Middle Name	Joy
Values Last Name	Rumel
Values Gender	Male
Year of Values Birth	1963
Party	Republican
Latitude	36.02
Longitude	75.27

BigData + ArtificialIntelligence

GoogleChrome MT from: <https://www.dasmagazin.ch/2016/12/03/ich-habe-nur-gezeigt-dass-es-die-bombe-gibt/>
https://motherboard.vice.com/en_us/article/how-our-likes-helped-trump-win

Soon his model can estimate a person better than an average work colleague by means of ten Facebook-Likes. 70 Likes are enough to surpass the friendliness of a friend, 150 of the parents, with 300 Likes, the machine can predict the behavior of a person more clearly than their partner. And with even more Likes can even surpass what people believe of themselves to know. On the day when Kosinski publishes these findings, he receives two calls. A complaint and a job offer. Both of Facebook.

Only visible to friends

Facebook has now introduced the distinction between public and private. In the "private" mode, only your friends can see what you are talking about. But this is not an obstacle for data collectors: While Kosinski always requests the consent of the Facebook users, many online quiz today demand access to private data as precondition for personality tests. (Who does not have great concern for the own data and will itself be judge based his Likes on Facebook, which can on Kosinski's side applymagicsauce.com make and compare then his results with those of a "classic" Ocean questionnaire: discovermyprofile.com/personality.html .)

But it is not just about the Likes on Facebook: Kosinski and his team can now assign people alone by means of the portrait photo the Ocean criteria. Or by the number of our social media contacts (a good indicator of extraversion). But we also reveal something about us when we are offline. The movement sensor shows, for example, how quickly we move the phone or how far we are traveling (correlated with emotional instability). The smartphone, Kosinski notes, is a huge psychological questionnaire, which we constantly conscientiously and unconsciously fill out. Above all, and this is important to understand, it also works the other way around: you can not only create psychological profiles from data, you can also look for specific profiles - for example: all worried family fathers, all angry introverts. Or: all undecided democrats. What Kosinski has invented is a human search machine.

Fake News

Behavioural Communications





**"People Farming"
by MicroTargeting:
Big Danger or
Brilliant Discovery?**

Nix Photographer: Bryan Bedder/Concordia Summit/Getty Images

In Latvia, SCL said it ran a campaign in 2006 designed to stoke tensions between Latvians and ethnic Russian residents: “In essence, Russians were blamed for unemployment and other problems affecting the economy,” an SCL document said. Nix confirms the firm’s role, saying that its research found that such tensions would “influence voting behavior.”

SCL’s website says it advised the Latvian candidate Ainars Slesers and his running mate, Andris Skele, in 2010. While their party alliance won eight seats in Parliament, it never joined the governing coalition. Marcis Bendiks, who advised Skele and was asked by the alliance to examine why it did so poorly, says SCL subcontracted its polling to a local company, Latvijas Fakti, but never paid it for the work. Aigars Freimanis, the company’s founder and adviser to the current Latvian prime minister, confirmed SCL never paid up. “It was

emotional,” says Bendiks. “We were extremely suspicious about the claims

