Empowering Consumers in the Age of Consumer-Data Oriented Digital Economy

James Tapsell

Information Security Group,
Royal Holloway

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ROYAL HOLLOWAY UNIVERSITY OF LONDON

Presentation Contents

Table of Contents

How services worked before data orientation

- Services were paid for either through subscription or one off payments (micro/macro transactions)
- This was good, as it meant that the price was visable, even if it was not obvious
- This poses an issue for services that a consumer wouldn't necessarily pay for
- Causes an issue for network effect services, such as social networks

How data orientation works

- Information becomes the new currency
- This information could be:
  - What you are - Age, Height...
  - Where you are - Country, City...
  - What you are interested in - Hobbies, Sports Teams, Areas...
  - What you do - Jobs...
  - What you are likely to do - Likely future events, purchases...
  - A lot of other options
- Either the information is sold, or adverts become more valuable as they are targeted to the person
- If the data is sold it becomes hard to track who it is sold on to

The problems with data orientation

- Cambridge Analytica style events, where data is given for one use, and then sold on
- Target style incidents, where systems learn more than expected
  - Target's marketing knew a teenager was pregnant before her family did
  - Leads to breaches of privacy
- Can gain biases from training sets
- Large data controllers can know so much about you, while you may not even know their names
- Benign data can become dangerous, as society changes, so all data must be protected

Existing systems

- The GDPR is good at limiting how data can be used
- It requires that accesses and modifications are logged
- It does not specify how to keep track of this
- A system is needed to keep track of this, which is what our system does
- Any system must be scalable to large scale, as all data controllers need to be compliant

Table of Contents

The problems we are solving

- Our system records accesses and modifications to data
- It is scalable, and is being designed to work with systems that are configured in ways found in enterprise architechures
- By not relying on the schema of the database, it can be added to any system with minimal configuration

Entities involved

- The Data Controller
  Holds the data
- The Consumer
  The person who the data is about
- The Regulatory Body
  The entity who enforces the laws regarding holding and analysis of data

What we add over data provenance

- We add a framework around provenance
- This specifies the role of each entity, and which services they must provide
- This creates a system that can be used to verify data is being handled correcly

Table of Contents

Thanks

Thank you for listening
Any Questions?
Feedback: feedback@jrtapsell.co.uk