

# Innovation in publishing: a Centre Tecnològic de Catalunya Temporario de Catalunya Temporario de Catalunya Temporario de Catalunya Temporario de Catalunya

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# The (big) data promise

Know your customers better than they know themselves.









TYPES: Towards transparencY and Privacy in the onlinE advertising business <a href="http://www.types-project.eu/">http://www.types-project.eu/</a>



GDPR Compliance Cloud Platform for Micro Enterprises https://smoothplatform.eu/

Privacy enhancing technologies

Digital identities and Security

Computational social science

Algorithmic bias

Responsible data management

Data Valuation





are methods and approaches for protecting user's Personally identifiable Information (PII).

Know you can have both:
Services based on data mining
that can extract value from
minimum PII



### Mind the people behind profiles



1:11 PM - 28 Dec 2017

# Security

Breaches in privacy may lead to a wide range of security problems, including harassment or extortion.

40% apps for children shared personal information without applying reasonable security measures.

"Won't Somebody Think of the Children?" Examining COPPA Compliance at Scale IMDEA/ICSI 2017





Users in control of their own data to prevent undesired usage and to foster fair trade-offs.

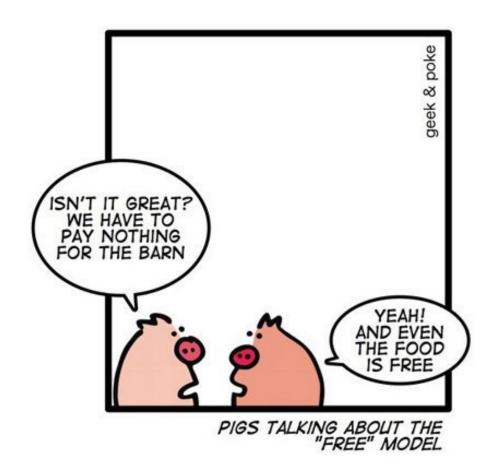
Also, to encourage data donations for public good.

The value of the European data economy may increase to €739 billion by 2020, representing 4% of the overall EU GDP.

European Commission

### The question of fair trade-offs





# **Fairness**

Biases and imbalances in the data get often reinforced by algorithms, that may learn to discriminate.

"Amazon Reportedly Killed an Al Recruitment System Because It Couldn't Stop the Tool from Discriminating Against Women" FORTUNE, October, 2018



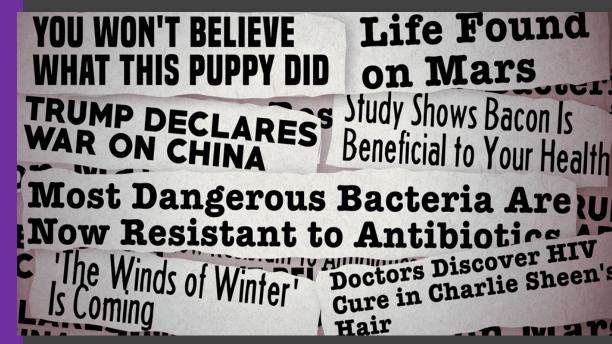
# Social cohesion

Algorithms play a role in increasing polarization and fragmentation of society; for instance, they contribute to filter bubbles and reinforcing flaming contents.

33,54% posts from mainstream media have clickbait headlines. In unreliable media the ratio is 39,26%.

Diving Deep into Clickbaits: Who Use Them to What Extents in Which Topics with What Effects? University of Mississipi, university of Oklahoma

Partnering up to shape the world



## Data delusion

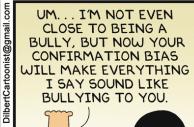
Online behavioral data is only a small fraction of people's existence, preferences, values, etc. The rest are just assumptions.

if you torture the data long enough, nature will always confess.

Coase, R. H. (1995). Essays on economics and economists. University of Chicago Press.

### Pursuing the data mirage







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