

Artificial Intelligence & consumer protection

Impact of AI on consumers' interests and rights

Prof. Giovanni Sartor

European University Institute, Cirsfid-University of Bologna, Italy

The Internet & AI: the promise

- overcome the information overload
- world-wide generation and distribution of knowledge and solutions
- economic efficiency, wealth creation
- cost-effective, individualised private and public services
- environmental-friendly management of utilities, traffic, logistics
- support for transparency, overcome bias and discrimination
- disintermediation, empowerment of consumers
- Etc.



But impacts on individual and society are not always good!

Nudging: the future of advertising



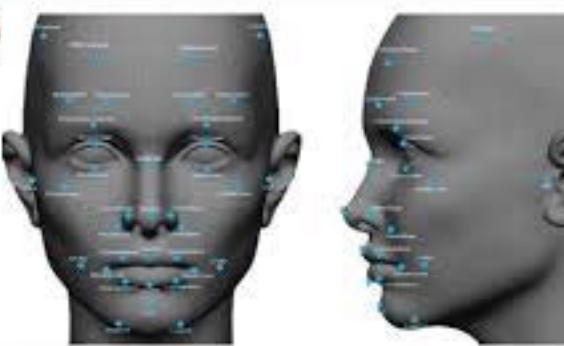
The illustration shows a stylized man's head in profile on the left. To its right is a blue brain diagram with several white arrows pointing towards it, symbolizing the concept of nudging or influencing behavior.

Top 5 Fake Election Stories by Facebook Engagement (three months before election)

- "Pope Francis Shocks World, Endorses Donald Trump for President, Releases Statement" (960,000, *Ending the Fed*)
- "WikiLeaks CONFIRMS Hillary Sold Weapons to ISIS... Then Drops Another BOMBHELL! Breaking News" (789,000, *The Political Insider*)
- "IT'S OVER: Hillary's ISIS Email Just Leaked & It's Worse Than Anyone Could Have Imagined" (754,000, *Ending the Fed*)
- "Just Read the Law: Hillary Is Disqualified From Holding Any Federal Office" (701,000, *Ending the Fed*)
- "FBI Agent Suspected in Hillary Email Leaks Found Dead in Apparent Murder-Suicide" (567,000, *Denver Guardian*)

ENGAGEMENT REFERS TO THE TOTAL NUMBER OF SHARES, REACTIONS, AND COMMENTS FOR A PIECE OF CONTENT ON FACEBOOK SOURCE: FACEBOOK DATA VIA BUZZSUMO

Sexual orientation detectable with facial recognition technology - what is next?



The image shows two 3D rendered human faces, one from the front and one in profile. Both faces are covered with blue dots and lines, representing facial recognition technology. A small red circle with the letters 'TLB' is in the top left corner.

PRO PUBLICA

Machine Bias

There's software used across the country to predict future criminals. And it's biased against blacks.

by Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner, ProPublica
May 23, 2016



NEURO MARKETING

The illustration shows a white silhouette of a woman's head in profile, facing right. The interior of the head is filled with various colorful icons representing different products and concepts, such as a perfume bottle, a shopping bag, a hanger, a flower, and a lightbulb. To the right of the head, the words 'NEURO MARKETING' are written in large, white, bold letters against a blue background.

What answers?

- Empowerment
 - Make the power of AI available to citizen and civil society
 - <https://claudette.eui.eu/>
 - Support civil society initiatives
- Regulation
 - Apply and develop fundamental principles
 - Provide for ethical and legal norms on the use of AI by private and public organisations
- Awareness
 - Promote awareness of opportunities and risk
 - Promote academic, political, civic debate on AI

CLAUDETTE

An Automated Detector of Potentially Unfair Clauses

Copy your text here

Submit

[About](#) [Cite](#) [Contact](#)



13th INTERNATIONAL CONFERENCE
22 - 24 JAN 2020 BRUSSELS, BELGIUM
COMPUTERS, PRIVACY
& DATA PROTECTION
CPDP2020
DATA PROTECTION
AND ARTIFICIAL
INTELLIGENCE
WWW.CPDPCONFERENCES.ORG

How to empower consumers

- **Protection** against unwanted monitoring
- **Support** in detecting unfair use of AI
- **Control** commercial practice fairness

“An opposing exercise of power is the principal solvent of economic power, the basic defense against its exercise in economic affairs”. Ken Galbraith

- In the AI era an effective countervailing power needs to be supported by AI.
- An approach: Promote, support, finance initiatives to use AI to enable active citizenship and effective control

A modest but useful proposal for consumer empowerment

CLAUDETTE

An Automated Detector of Potentially Unfair Clauses

Copy your text here

Submit

[About](#) [Cite](#) [Contact](#)

Claudette,
what do you
think about
Facebook's
terms of
service?

CLAUDETTE

An Automated Detector of Potentially Unfair Clauses

Welcome to Facebook!

Facebook builds technologies and services that enable people to connect with each other, build communities, and grow businesses. These Terms govern your use of Facebook, Messenger, and the other products, features, apps, services, technologies, and software we offer (the Facebook Products or Products), except where we expressly state that separate terms (and not these) apply. These Products are provided to you by Facebook Ireland Limited.

We don't charge you to use Facebook or the other products and services covered by these Terms. Instead, businesses and organizations pay us to show you ads for their products and services. By using our Products, you agree that we can show you ads that we think will be relevant to you and your interests. We use your personal data to help determine which ads to show you.

We don't sell your personal data to advertisers, and we don't share information that directly identifies you (such as your name, email address or other contact information) with advertisers unless you give us specific permission. Instead, advertisers can tell us things like the kind of audience they want to see their ads, and we show those ads to people who may be interested. We

Submit

[About](#) [Cite](#) [Contact](#)

CLAUDETTE

An Automated Detector of Potentially Unfair Clauses

Claudette found 7 potentially unfair clauses (displayed in **bold**) out of 159 sentences.
By hovering your cursor over each unfair sentence, you can see the most likely unfairness category.

[...]

We can remove or block content that is in breach of these provisions.

If we remove content that you have shared for violation of our Community Standards we 'll let you know and explain any options you have to request another review, unless you seriously or repeatedly violate these Terms or if doing so may expose us or others to legal liability; harm our community of users; compromise or interfere with the integrity or operation of any of our services, systems or Products; where we are restricted due to technical limitations; or where we are prohibited from doing so for legal reasons.

[...]

As a result, we may need to update these Terms from time to time to accurately reflect our services and practices.

[...]

Once any updated Terms are in effect, you will be bound by them if you continue to use our Products.

[...]

If we determine that you have clearly, seriously or repeatedly breached our Terms or Policies, including in particular our Community Standards, we may suspend or permanently disable access to your account.

We may also suspend or disable your account if you repeatedly infringe other people 's intellectual property rights or where we are required to do so for legal reasons.

[...]

In all other cases, you agree that the claim must be resolved in a competent court in the Republic of Ireland and that Irish law will govern these Terms and any claim, without regard to conflict of law provisions.

[...]

Share link

Save results

The future of choice



- We view our lives as a sequence of choices. What if an AI system:
 - Knows ourselves better than we do
 - Knows what fits our preferences better than we know
 - Can suggest us what we should do
- Shall we trust that system? Shall we accept to be managed?
- Issue: How to use AI to make better choices, while keeping responsibility for it:
 - to be able to purchase only what best suits our interest,
 - in the awareness of what is relevant and available, and of the social-environmental implications



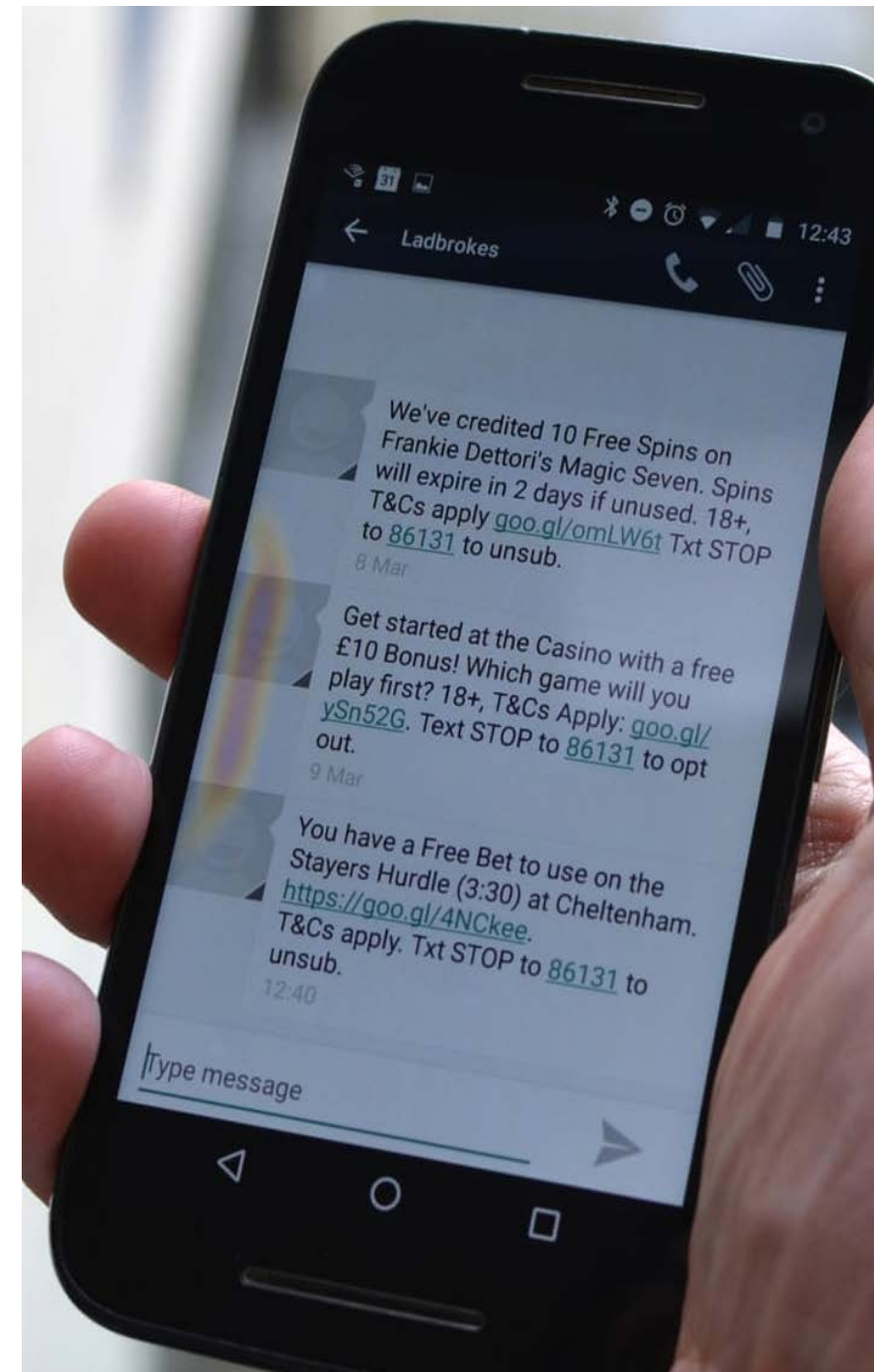
A new asymmetry of information

- Not only suppliers know better the products than consumers
- Suppliers also know much better consumers than consumers know suppliers:
 - Profiling
 - Emotion detection
 - Psychographics



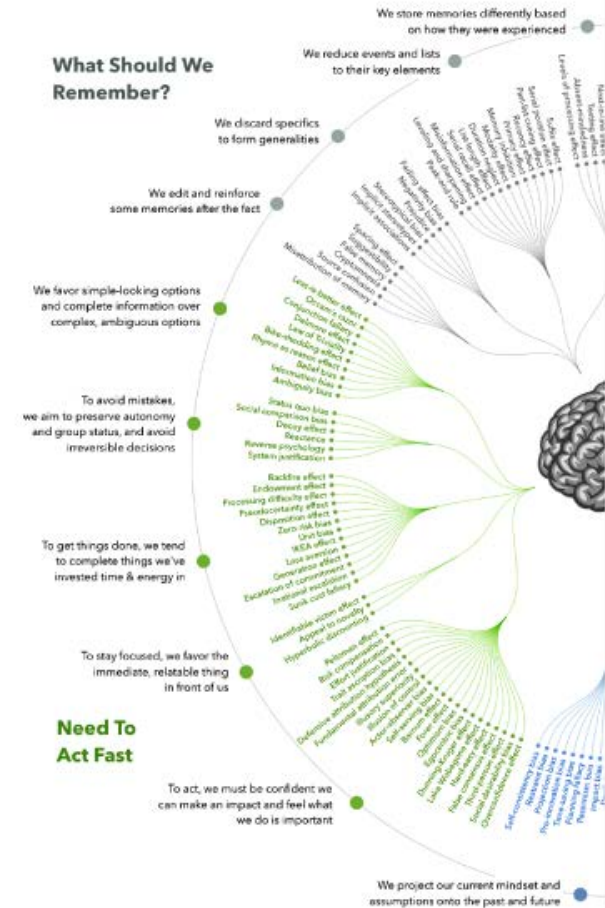
Focus on risks for consumers

- Excessive data collection /profiling
- Limitations on consumers' autonomy
- Profit of cognitive biases of consumers
- Discriminatory/unfair/ aggressive/exploitative advertising
- Filter bubbles/echo chambers/diversity loss
- Information asymmetry; arbitrary power
- Exploitation of vulnerabilities
- Opacity, inability to contest
- Risk of erroneous diagnoses, suggestions
- Unfair algorithmic decisions



Issue: algorithms exploiting consumer biases

- Availability cascade: repeat messages
- Bandwagon effect: be with the majority
- Confirmation bias: present what you already like/know
- Fear of missing out: 1 ticket left!
- Herd behaviour: referral program (reward referrals)
- Anchoring: show high price and offer discount
- Framing: present discount as a gain or a loss
- Authority bias: present testimonial
- Reciprocity bias: offer temporary free service
- Loss aversion: save 15% if you buy now!
- Hyperbolic discounting: provide gifts, delay payments



Issue: Price discrimination

- AI enables sellers to figure out the highest price a client can pay
- Should there be price discrimination in consumer retail markets? For what good/service, on what grounds'?
- Price discrimination not only is unfair, but it also undermines the efficiency of the economy (Stiglitz)

What's the Deal?

Online travel brokers offer different prices depending on the customer's operating system, browser history and device.

Prices for overnight lodging



 +  = +\$12

Not being logged in to these sites causes some users to be charged more.



 +  = -\$15

Using iOS saves Travelocity customers money.



 +  +  = +10%

These sites show higher-priced hotels to some users at random.

Source: Northeastern University College of Computer and Information Science, Personalization Research Group

The Wall Street Journal

Other issues (no time)

- Discrimination in algorithmic offers
- Targeted advertising/malicious nudging
- Aggressive personalised advertising
- Discrimination in ads delivery
- Rights to information/transparency/explanation
- Collective interests; collective remedies

Regulations relevant AI and consumers

- **Data Protection:** GDPR, ePrivacy Directive (Regulation?), etc
- **Consumer protection:** eCommerce Directive, Unfair Commercial Practices Directive, etc.
- **Commerce:** (Regulation on platform-to-business relations), Directive on contracts for the supply of digital content and digital services, Directive on contracts for the sale of goods, etc.
- **Copyright:** Information society directive, Directive on copyright in the digital single market, etc.
- **Competition law**

Do we need additional rules for AI and consumer protections?

- Principles exist and are applicable
 - Data Protection norms: Processing of personal data must have a legal basis, Rights to information, Limits on profiling and automated decision-making, Data protection by design and by default, etc.
 - Consumer protection norms: Liabilities of providers, Rights to information and withdrawal, Prohibition of unfair commercial practices, Misleading, aggressive and coercive practices, Measures on enforcement, etc.
- Guidance is needed to apply such principles to the the new domain of AI
 - Mainly through soft law (example of very good practice: the opinions of the Article 29 WG on data protection)
 - Also through some hard law, to be introduced with due care!

Artificial Intelligence & consumer protection

Impact of AI on consumers' interests and rights

Giovanni Sartor
European University Institute, Cirsfid-University of Bologna, Italy

Thanks for your attention!