

## FOSS and Open Standards for Digital Sovereignty

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#### **How to Achieve Technology Sovereignty?**

Influence open standards to direct international markets towards European technologies, as well as patent pools or Open Source software and hardware, to prevent the structural dependency from tech monopolies.

## **EU Digital Sovereignty: State of Play**

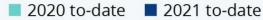
The influence of non-EU tech companies is a concern for EU policy-makers, especially with regard to their impact on the EU's data economy and innovation potential, on EU privacy and data protection and on the establishment of a secure and safe digital environment

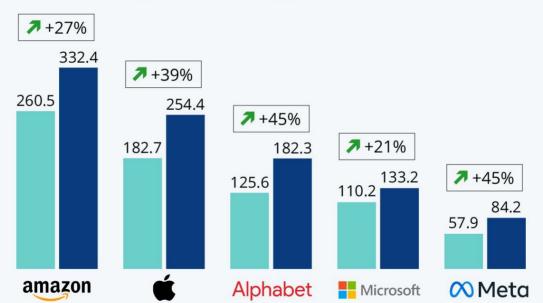




#### **Big Tech Keeps Getting Bigger**

GAFAM revenue in the first nine months of 2021 vs. 2020 (in billion U.S. dollars)





Source: Company filings









#### **Subservience to Microsoft**

Is that true? Is that real? Unbelievable, Microsoft rules

#### **Human Genes Renamed To Please Excel**

Written by Janet Swift

Friday, 07 August 2020

More than two dozen human genes have been renamed so that they can be typed into a spreadsheet without being formatted as dates. New guidelines for standardized gene naming explicitly allow for renaming genes to avoid problems with data handling.



#### TOP 10 LOBBY SPENDERS OF THE DIGITAL INDUSTRY<sup>17</sup>

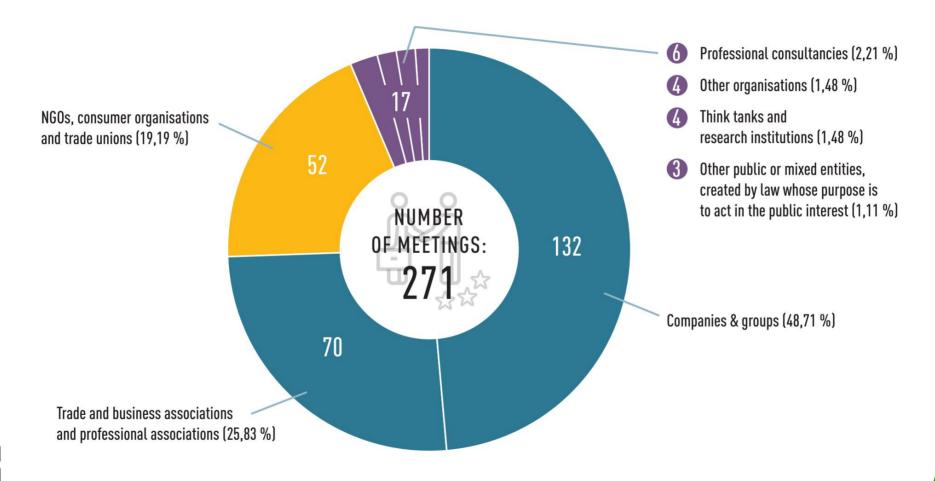


Source: The Lobby Network, Big Tech's Web of Infuence in the EU

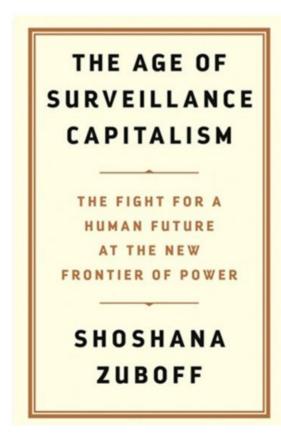
## Impact of Lobby Budgets

- These huge lobbying budgets have a significant impact on EU policy-makers, who find digital lobbyists knocking on their door on a regular basis (more than 140 lobbyists work for the largest ten digital firms in Brussels and spend more than € 32 million on making their voice heard)
- Big Tech companies don't just lobby on their own behalf, but they also employ an extensive network of lobby groups, consultancies, and law firms representing their interests, not to mention a large number of think tanks and other groups financed by them

#### MEETINGS WITH THE EU-COMMISSION ON THE DSA/DMA



#### **Surveillance Capitalism**

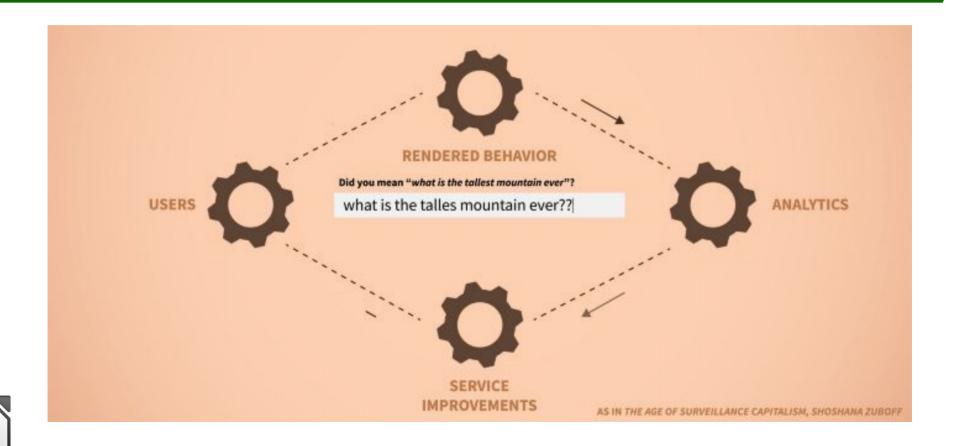




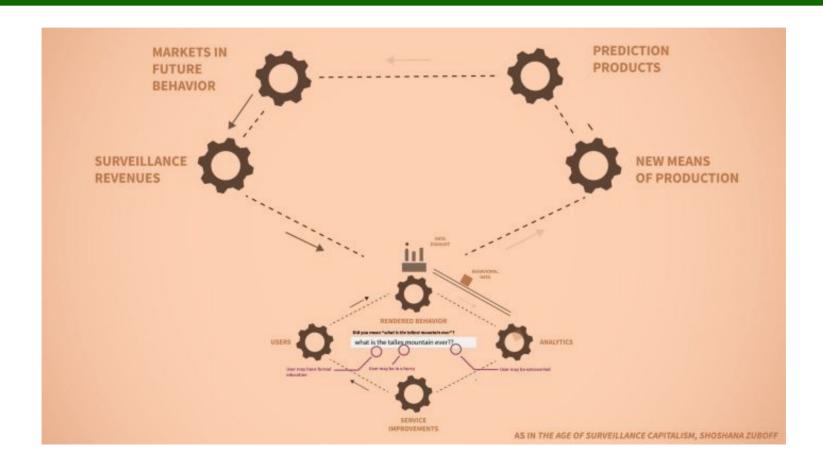
## Defining Surveillance Capitalism

- Surveillance capitalism commandeered the wonders of the digital world to meet our needs for effective life, promising the magic of unlimited information and a thousand ways to anticipate our needs and ease the complexities of our harried lives.
- Under this new regime, the moment our needs are met is also the moment at which our lives are plundered for behavioral data, and all for the sake of others' gain.

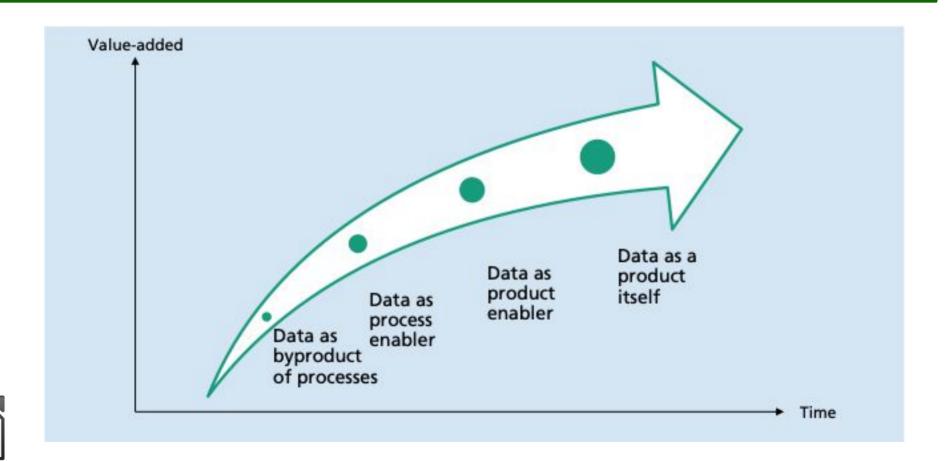
#### **Behavioral Value Reinvestment**



## Discovery of Behavioral Surplus

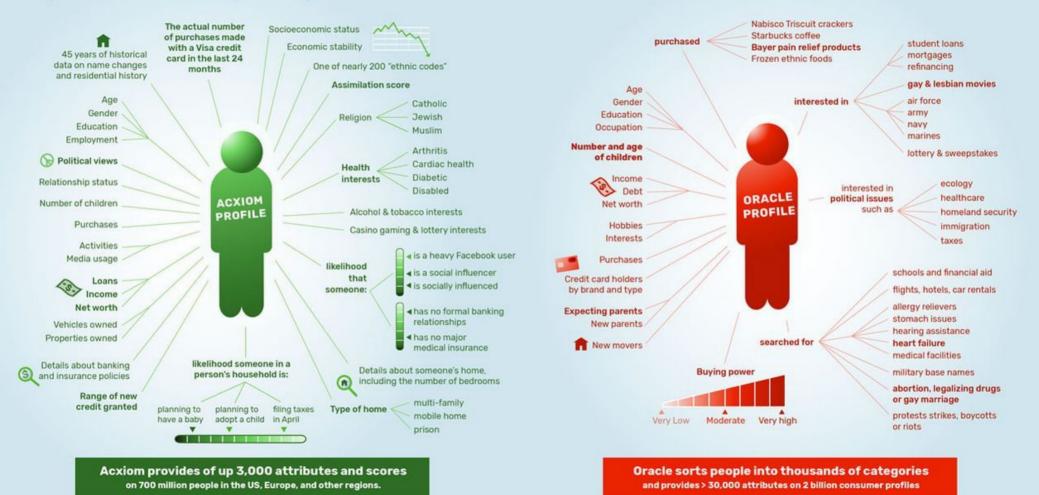


#### **Evolution of Data**



#### DATA BROKERS HAVE EXTENSIVE PROFILE INFORMATION ON ENTIRE POPULATIONS

Examples of data on consumers provided by Acxiom and Oracle



© Cracked Labs CC BY-SA 4.0. April/May 2017. Disclaimer: the mentioned companies typically keep information about their activities secret. This illustration is based on publicly available information by Acxiom and Oracle. Every effort has been made to accurately interpret and represent the companies activities, but we cannot accept any liability in the case of eventual errors. Sources: Acxiom annual reports, developer website, audience playbook, taxonomy updates for January, 2017 (Excel document). For details about the sources see the report "Corporate Surveillance in Everyday Life."

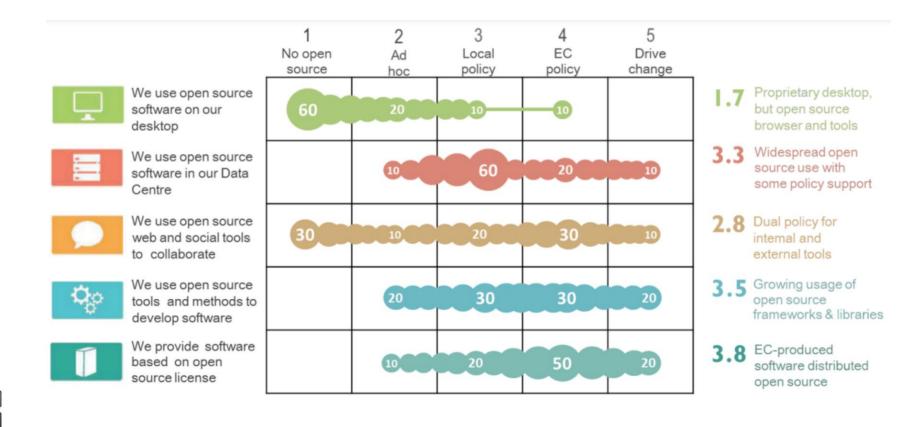
#### **Enabling the Data Commons**

- Can we regain control of our data?
- We want to decide who to share it with, under which rules, when and for what purpose
- One can decide in a democratic way based on trust but if data is a monopoly of a few, collective intelligence is lost...

#### **Proprietary versus FOSS**

- Proprietary software protects the user by obfuscating algorithms and information, but in this way they also obfuscate the way they handle end user data
- FOSS protects the user with transparency, by sharing source code and all information about methodologies used by projects to manage end user data

## **EC OSS Adoption Maturity Index**





## What Would Change with FOSS

- By switching to FOSS for desktop productivity and cloud storage, European governments would regain control of citizen's personal data and manage them according to their confidentiality
- In addition, switching to FOSS would include moving from proprietary to standard document formats, with a significant advantage in term of interoperability

## Apparently a No Brainer, but...

- Politicians who are not technology experts see AAAMMs as part of the global system, and therefore consider their issues as blockers for the entire digital transformation process (and try to help them)
- On the contrary, politicians because of their limited understanding of technology – do not see FLOSS as part of the global system, and as a consequence do ignore FLOSS as a potential solution

#### **FSFE Project**



**Public Money** 

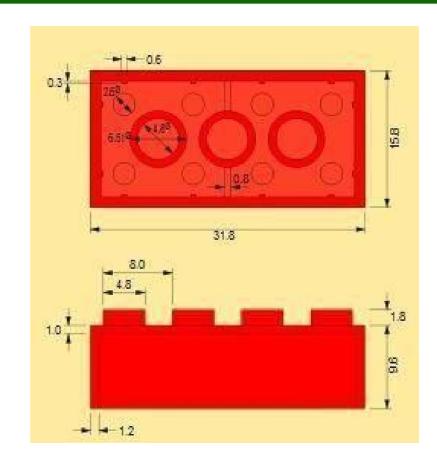
**Public Code** 

publiccode.eu

#### Standard and Interoperability

Interoperability is the ability of information and communication technology (ICT) systems, as well as of the business processes they support, to exchange data and enable the sharing of information and knowledge.

European Interoperability Framework, IDABC





#### Importance of the HTML Standard

- It was the standardization of the HTML format that allowed the web to take off. And not just the fact that it's a standard, but the fact that it's open and royalty-free...
- Had HTML not been free and open, and a proprietary technology, the business of selling HTML and competing products would have been born...
- This means we need standards, because this avoids competition over technology, and fuels the value-added business built on the platform...

Tim Berners-Lee, CERN world wide web inventor



#### **Document Format as a Hindrance?**

- Government should be platform independent and allow only true document standards, as pseudo standards can be tweaked in a way not visible to users to prevent document interoperability
- In fact, tweaked standards force citizens to pay a fee to create documents (purchase of a proprietary license), or to accept the intrusive license / spying conditions of a cloud based platform
- Only standards associated to FOSS can solve this problem

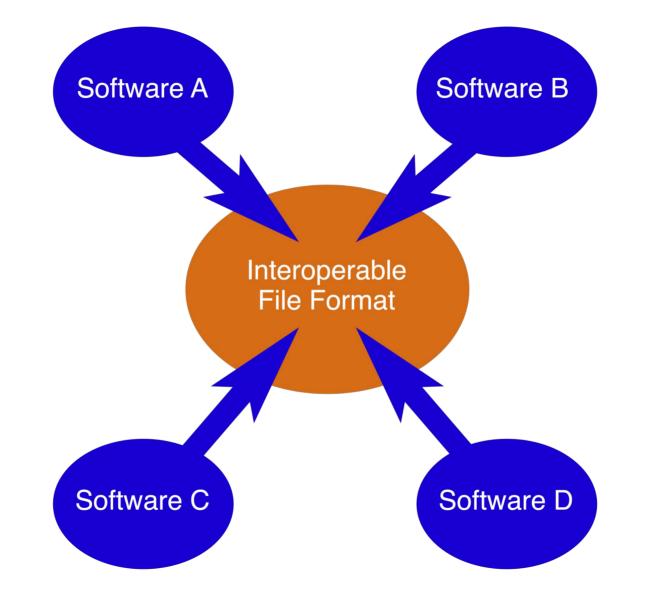


## **Open Document Format**

the true document standard which offers freedom of choice

#### **Basic Concepts**

- ODF is solid and robust
- ODF is consistent across OS
- ODF is truly interoperable
- ODF is predictable
- ODF is the best standard file format for users of personal productivity SW



#### **OOXML Transitional and Strict**

- As of 2020, the Office default for .docx, .xlsx and .pptx is
   Transitional OOXML, a proprietary document format which
   was created as a bridge from legacy MS Office formats and
   the approved ISO Standard.
- OOXML Strict is the ISO approved open standard, but being the non publicized last option on MS Office "file, save as..." menu has not been adopted, so 100% of existing OOXML files we are referring to are proprietary (non standard).

## **OOXML Philosophy**

- The OOXML pseudo-standard document format appears to be designed by Microsoft for Microsoft products, and to inter-operate with the Microsoft environment
- Little thought appears to have been exercised for interoperability with non-Microsoft environments or compliance with established vendor-neutral standards

#### Lock In



#### How to Lock-in Your Clients

How Professional Services Firms Can Create Compelling Value for Clients Using Collaborative Technologies

Ross Dawson

CEO, Advanced Human Technologies

Author, Living Networks and Developing Knowledge-Based Client Relationships

January 2004

A STRATEGIC WHITE PAPER FROM MICROSOFT BUSINESS SOLUTION

#### How to Lock-in Your Clients

How Professional Services Firms Can Create Compelling Value for Clients Using Collaborative Technologies

## **ODF Philosophy**

- The philosophy behind the ODF standard document format was to design a mechanism in a "vendor neutral" manner from the ground up using existing standards wherever possible
- Although this means that software vendors would need to tweak their individual packages more than if they continued down their original routes the benefits for interoperability were important enough to justify the move

#### **ODF vs OOXML Strategic Difference**

- ODF has been designed as a document standard for the next 20-50 years, to liberate users from the lock-in strategy built into yesterday's and today's proprietary formats, and foster interoperability
- OOXML has been designed as a pseudo-standard document format to propagate yesterday's document issues and lock-in strategy for the next 20-50 years, to the detriment of users and interoperability

#### **OOXML Reinvents the Wheel**

- More than 80% of OOXML's huge documentation (over 7K pages) is used to "reinvent the wheel":
  - Describe proprietary Microsoft formats adopted to replace available open standards (i.e, VML over SVG)
  - Describe OOXML's extremely "convoluted" XML Schema, which is not following any XML convention (i.e., text for "text", strong for "bold", etc.)
  - Describe many proprietary elements of legacy MS Office formats, which are not part of the ISO standard

#### "Real" Deductions

- Microsoft Office XML files are artificially filled with unnecessary content to reduce the chances that software other than Microsoft Office can open them correctly
- Microsoft has a clear commercial interest in opposing interoperability based on standard and open formats, to protect a market that is worth more than \$25 billion
- So, documents created with Microsoft Office are standard on paper, but in reality they are built to fool users (and convince them that interoperability cannot exist)

## **Complexity as a Strategy**

- Complexity is the deliberate distribution of ambiguous, confusing or misleading information, to interfere with digital sovereignty and data ownership
- OOXML deliberate complexity and false statements about the standard status have the objective of making content sharing difficult for end users and at the same time disqualify the idea of document standards, as inefficient and cumbersome

#### **Future of Surveillance Capitalism**

- It is a market strategy, not a technology
  - Its continuation/expansion is not inevitable
- Its business model is based on misuse of our personal data, in ways concealed from us
- Regulation can change the business model
  - It has to prohibit key objectionable practices
  - It has to be 'dissuasively' enforced, and global
- The EU's GDPR is starting to lead the way



# What is at stake here is the human expectation of sovereignty over one's own life and authorship of one's own experience

Shoshana Zuboff, The Age of Surveillance Capitalism

#### **Thanks**

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