

TRANSLATION FROM THE ORIGINAL SUMMARY IN SPANISH

Seminar 'Digital Footprint: Servitude or Service?'

**The business model of big data advertising
(Summary of the session of January 16, 2020)**

One of the scheduled work sessions of the Permanent Seminar: 'Digital fingerprint: servitude or service?' took place on January 16, 2020. This time the interdisciplinary group of the seminar addressed the business model of the advertising use of big data. The seminar, which will run until June 2021, intends to go deeply, through dialogue, into the effects of data exploitation on technological development from the point of view of the common good and governance.

Cristina San José and Josep Salvatella introduced the session. Cristina is Chief Data Strategist of the Santander Group and a member of the Seminar's Board of Directors. Josep Salvatella is CEO and Partner of RocaSalvatella, a digital business consultant company. After the presentations, the attendees, which include industrial and financial practitioners, senior public officials, economists, sociologists, and philosophers, raised questions and comments. This document is a summary of the reflections of the session, with the list of participants in the meeting included at the end.

The neutrality of the tool, what is it and how does an algorithm work?

The session started with an exercise carried out with the attendees. The point was to illustrate the operation of an algorithm. By analyzing and distributing data based on specific criteria, an algorithm aims at giving a more realistic image than the traditional Gaussian statistical distributions, which only gave an 'illusion of knowledge'.

Each participant was invited to mentally build an algorithm following guidelines given on the spot. The exercise led to the debate about the intentionality of big data treatment tools.

The purpose was to show, with the example, that data analysis is not so much a formula but rather a geometry. Data analysis, the first step towards Artificial Intelligence (AI), works by analyzing the extent, the measurement, and the relationships between the objects of study. In this sense, it cannot be said that the algorithm is somewhat skewed or somewhat objective; it is a neutral tool that depends, intentionally, on the one who uses it. From this point of view, the treatment of broad data is first and foremost a precision technology, which according to the orientation (citizen / client, company or government) can negatively affect some parties and benefit others.

Along the same lines, one can argue that AI is not really "intelligent" since a machine is not able to understand what it does. Although computers do things that intelligent beings do naturally, like recognizing objects, writing, translating, or even creating (paintings or music), they are not intelligent in the way that a person is. What computers do is calculate, add, and multiply; these processes are automated, and thus predictive models emerge. It will always be the human being who manages those models at his convenience.

However, several participants questioned the neutral nature of big data tools: for an algorithm to operate, there must be some hypotheses that previously defined which data will be relevant to make the prediction. An algorithm is an instrument, but it is never isolated; it has a structure built with an end. There are many examples of algorithms that, in their definition, imply possible manipulations. The instrument intends to analyze “the truth”, but the resulting image, always based on black and white alternatives, while very useful at predicting situations that can be reduced to a 'yes' or 'no', does not work instead when it comes to analyzing other realities that are ‘variations of gray’. Besides, one should consider the fact that many instruments depend mainly on the quasi-monopoly power of some large companies in the United States and China, which dominate the development of algorithms for their own use as well as for third parties. The latter support the idea that the creation of products always comes with a previous use load. The debate about the neutrality of the tool will appear again in other issues related to the use of big data.

Legislation and Education

The data revolution is beginning. It is a phenomenon not yet fully understood, but it grows towards massive dimensions; it is not static and grows exponentially. The interactions between data, people, machines, and AI have just begun. Hence, the key is to understand the harmful aspects of these combinations and how it is possible to correct them.

This phenomenon raises the problem of the use of personal data of the citizen by third parties. There are two possible ways to channel conflicts of interest: on the one hand, **legislation**, as a regulator of big data tools; on the other hand, but not in contrast, **education**. The latter appeals to the ignorance of citizens regarding the generation of data and the real and potential use that a third party can make with that information.

Regarding legislation, it seems clear that regulation needs to adapt to the change in AI and big data to avoid becoming obsolete even before it enters into force. Besides, the legislation must have an international character, as the tools in question have an area that exceeds the national one. Companies such as Google or Facebook operate internationally. Thus, the consequences of the activity of all parties have international repercussions that must be legislated at the same level.

How to regulate? There must be new formulas for the latest tools; law should seek international consensus, define the intervention of each of the parties, and determine who will be the entity in charge of supervising. There should be an international consensus, so those who use the data know if their activity goes against the law. This implies that legislation should attempt to cover the legal gaps that exist in the world regarding data management.

But when regulating, authorities should try to promote the generation of ideas regarding the good use of data instead of restricting the progress of big data tools.

Regulation should help innovation to operate effectively, while defending our individual and collective well-being. Restrictive policies in Europe may have limited the capabilities of European companies that are currently not at the level of other countries, such as the United States or China. Europe does not have any players of relevant scale and does not own specific data assets; this is probably due in part to regulatory voracity. The problem exacerbates when, while restricting, the door remains open to strong competitors by leaving a free scenario for companies from other countries.

Regulation should promote beneficial uses, rather than prohibiting; only that can help the successful development of big data. It would be appropriate to look at principles rather than rules in order to give space for substantive compliance, and not to merely formal compliance. And whatever the effect of regulation on the advancement of technologies, it is essential at the same time to have **education** as a more neutral path, to reach the limits where the law cannot reach. The true democratization of data can only be achieved if the knowledge of citizens, of those who generate the data, develops on a large scale.

AI and big data **education** arise issues like citizens' awareness regarding the generation and use of personal data. Internet users accept privacy policies online without real knowledge of the potential use of their data.

Thus, large companies make decisions using information that citizens provide without full awareness and draw conclusions from data crossings, far beyond the consent given by the user. Education appears like the only way to move forward in the debate about whether it is ethical or not to use citizens' data when they are unaware of the potential use of their information.

This would help citizens to retain ownership of their data, and their digital footprint and to become able to critically receive invitations from the online market. This is the process that some call "user empowerment."

Abundance and freedom; servitude or service?

Data is accelerating business development. Thanks to digital marketing tools, companies study customer interactions and try to offer a service that responds to that activity. Users' behaviors are recognized and then platforms present products that meet their tastes and needs. The more a customer is known, the more the company's business interactions with him are specified. Thus big data represents a breakthrough in marketing that is unprecedented, as it means adjusting advertising to the specific customer. Based on the knowledge generated by the data, companies intend to make a new "value layer." The reasonable doubt is whether this is value only for the company, or also for the consumer.

We are in the scenario of abundance, in which the customer is increasingly known, thanks to the analysis of a huge amount of data, and he is offered what is believed to interest him, which often translates into a wide range of possibilities. But what implication does that have on the freedom of users if the information received by the client is aimed at exacerbating their emotions, since it is intended to drive him or her to buy and that this purchase is made unconsciously? The client is often unable to manage the abundance that is offered; in this sense, digital marketing tools may be restricting the freedom of citizens.

As will be seen in another session later, the media offer an example of this threat to freedom of information insofar as the use of digital techniques is accompanied by a growing concentration of media control in few hands. One cannot forget, on the other hand, the significant fractures and the tremendous disparities that remain or are increasing in the world, due to processes that no algorithm has hitherto been able to solve. These dimensions are essential topics on which the Seminar will return in the coming months.

The issue of advertising, in any case, inevitably leads to the awareness of the population. Citizens are unaware of the trail they leave, which is used to influence their will. Users browse the web, and without perceiving, they create content that will later have an impact on their own online decision making. It is clear that there is a game in which the two parties, client and company, do not start from the same line, hence the need for awareness.

But there appears the responsibility of the user, who cannot ask to be protected from himself. Thus, the new economy of abundance can be seen as a limit or as an enhancement of people's ability to choose. The latter appeals to the title of this permanent seminar: 'Digital Footprint: Servitude or Service?' In order to know if the use of big data for advertising extends or limits the freedom of citizens, it is essential to generalize the debate, and that people rediscover if they have forgotten, the art of discerning.

Attendees:

1. **Alfonso Carcasona**, CEO, AC Camerfirma
2. **Alfredo Marcos Martínez**, Professor of Philosophy of Science, Universidad de Valladolid
3. **Alfredo Pastor Bodmer**, Economist, Emeritus Professor, IESE
4. **Almudena Rodríguez Beloso**, Director of Institutional and Corporate Relations, VALORA
5. **Ángel Gómez de Agreda**, Colonel Chief, Geopolitical Analysis Area, DICOES/ SEGENPOL
6. **Ángel González Ferrer**, Executive Director, Digital Pontifical Council for Culture.
7. **Carolina Villegas**, Researcher, Iberdrola Financial and Business Ethics Chair, Universidad Pontificia de Comillas
8. **Cristina San José**, Chief Data Strategist, Banco Santander
9. **David Roch Dupré**, Researcher, Instituto de Investigación Tecnológica
10. **Domingo Sugranyes**, Director, Digital Fingerprint Seminar.
11. **Esther de la Torre**, Responsible Digital Banking Manager, BBVA
12. **Francisco Javier López Martín**, Former Secretary-General, CCOO Madrid
13. **Gloria Sánchez Soriano**, Transformation Director, Legal Department, Banco Santander
14. **Guillermo Monroy Pérez**, Professor, Instituto de Estudios Bursátiles
15. **Idoia Salazar**, AI ethics expert, Universidad CEU San Pablo
16. **Idoya Zorroza**, Professor, Faculty of Philosophy, Universidad Pontificia de Salamanca
17. **Ignacio Quintanilla Navarro**, Philosopher, Educator, Universidad Complutense de Madrid
18. **Jesús Avezuela**, General Director of the Pablo VI Foundation
19. **Jesús Sánchez Camacho**, Professor, Faculty of Theology, Universidad Pontificia Comillas
20. **José Luis Calvo**, Director of AI, SNGULAR
21. **José Luis Fernández**, Director, Iberdrola Financial and Business Ethics Chair, ICADE
22. **José María Viñals**, Partner, Squire Patton Boggs
23. **José Ramón Amor**, Coordinator, Bioethics Observatory, Pablo VI Foundation



24. **Josep Salvatella**, Founder and Executive President, RocaSalvatella
25. **Juan Benavides**, Professor of Communications, Universidad Complutense de Madrid
26. **Julio Martínez s.j.**, Dean, Universidad Pontificia Comillas
27. **Pablo García Mexía**, Digital Jurist, Of Council Ashurst LLP
28. **Raúl González Fabre**, Professor, Universidad Pontificia de Comillas
29. **Richard Benjamins**, Data & IA ambassador, Telefónica
30. **Samuel Privara**, cybernetics, robotics and artificial intelligence expert