

## TRANSLATION FROM THE ORIGINAL SUMMARY IN SPANISH

### Seminar 'Digital Footprint: Servitude or Service?'

#### The transformation in Finance and Insurance

(Summary of the session of April 15, 2020)

The expert committee of the permanent seminar: 'The Digital Footprint: servitude or service?' held its third session on April 15, 2020. The meeting took place by videoconference, given the restrictions in force due to COVID 19; this time, the focus was on the impact of data analysis and 'Artificial Intelligence' (AI) in the transformation of financial and insurance activity.

Diego Bodas Sagi, Mapfre Lead Data Scientist, presented the topic from the standpoint of the company's experience and reflection. Paul H. Dembinski, director of the Observatoire de la Finance in Geneva, then provided elements of critical thinking. The permanent seminar, which will continue its work until June 2021, aims at exploring how an ethical debate on good governance of technological innovation can emerge from an interdisciplinary perspective. To achieve this purpose, the committee of experts promotes the exchange of points of view of philosophers, sociologists, communicators, economists, jurists, technologists, and people with managerial or labor experience of companies in the technological, financial, and industrial sectors, all speaking from their expertise but seeking to overcome the unilateral discourse of each discipline.

#### Interpretation of AI models and decision making

Viewed from the company: the engine of digital transformation is competition in a context in which clients demand quality services provided in an efficient and agile manner. In the case of the insurance activity, risk management is the mission of the sector, and new challenges (due to their nature and frequency) have appeared in recent years. Examples of this are the atmospheric phenomenon of the "Cold drop" (isolated depression at high levels) that occurred in past months in Spain and involved tens of thousands of weekly assistances for insurers, or the new cyber risks that affect companies and institutions - with dimensions unknown until now due to the accumulation of risk without borders; or the health crisis created by the Covid-19 pandemic. The appearance of these phenomena is difficult to anticipate. However, a country's economy depends on the responsiveness to this type of contingencies. The insurance and financial sector have a responsibility in this scenario.

To face new problems, insurance companies must provide efficient and agile solutions, relying on the most advanced data analysis techniques. Their use is not a mere attempt to "robotize" existing tasks, but mostly an effort to respond to new problems due to their characteristics or frequency. The key to answer is **prevention**. That is, to control the situation, you have to anticipate events. To achieve this, one needs the measurement and analysis of the data and the subsequent execution of the Artificial Intelligence models

that constitute an increasingly relevant element for decision-making. In summary, to manage risk, you have to measure and to measure, you need data.

In AI-based risk management, good data governance is the first requirement. The full application of European legislation and regulation is a good starting point for obtaining reliable and appropriate data for the objectives, which implies the quality of the information. In this sense, companies must invest in procedures, tools, and resources that guarantee the implementation of sound data governance for the achievement of reliable results. The second necessary condition is to tailor the methodology to ensure the adjustment of projects to business needs while respecting the scientific method and technical standards rigorously and keeping industrialized models appropriately monitored.

Based on data analysis, the interpretability and constant monitoring of AI models are fundamental pieces to mitigate the risks in the application of AI. Taking into account the scope of action, professionals can try to understand why models propose specific measures, in order not to decide anything blindly. AI does not understand what it is proposing as a human would; therefore, it cannot react to unforeseen events. The latter means that when faced with relevant decisions, AI requires expert human supervision. Hence companies must implement models to carry out specific operations that can't be abandoned to an automatic process.

Decision automation supports many degrees, depending on usage. AI can be allowed to execute a resolution on aspects that do not threaten citizen welfare, such as recommending a book or TV series based on a generated pattern of consumer tastes. However, in the case of more far-reaching decisions, like medical diagnoses or large-scale economic decisions, one needs to rigorously analyze if the automation of the process is appropriate or, on the contrary, the algorithms bring just additional information for humans who must make the final decision. In some contexts, there will be issues to reconsider because of the impossibility of translating them into interpretable data, or biases in data that are hard to control. The debate arises in those cases where it does not seem entirely clear whether or not the decision can be left to the AI, for example, in the granting of a credit or insurance coverage. Overall, it seems clear that the utility of AI lies in dispelling subjective biases and facilitating informed human decision-making. However, the debate remains about the scope of automated response and properly human "deliberation."

### **Damage prevention or social control**

Data management for risk prevention has two sides that open the ethical debate regarding the intent of calculation formulas: what appears to be harmful to some, to others, is a positive thing. To illustrate this, we can take the example of the **activity trackers**. The recording of people's activity appears as a preventive method. The data these bracelets collect helps to predict whether a person is prone to specific health problems, such as those that stem from obesity or the risk of having a heart attack. From this point of view, the data would help improve the prevention system, which would be beneficial for people who could be affected by certain diseases, for the health system and the economy. But, on the other hand, for some experts, this type of information, undoubtedly useful for companies, could negatively affect risk selection.

For example, having all the information of a person, thanks to activity trackers could be used to deny access to health insurance.

For some, companies appear as an almighty entity that is in a situation of superiority in front of a disadvantaged individual consumer. The service provider is in a privileged position because it has the information, all the data of the individual. In this asymmetric relationship, the question of trust arises: can the purpose of the one who controls the entire process be considered necessarily as good? Isn't there a risk that, with fully personalized products and the pricing, the market will stop working, and the consumer will lose all freedom of choice? In front of such views, the operators point out that, at least in Europe, the margin for personalization is limited since the General Data Protection Regulation provides a certain guarantee against discrimination. This world-leading privacy standard ensures that certain information from European citizens, such as race or sex, cannot be used when deciding on the provision of financial or insurance services. Besides, in the case of Spain, the Bank of Spain and the correspondent Ministry regulate the use of personal data for risk selection.

In the asymmetric relationship between individuals and companies regarding the use of personal data, the dialectic between prevention and control arises continually. Is the use of personal information beneficial or harmful to society? In auto insurance, for example, it may seem desirable to the general interest to know the possibilities of a car accident by monitoring a person's activity. That different personal profiles, types of cars, or risk situations should be differently priced is nothing new; AI tools provide precision in this segmentation. Some fear that the basic principle of insurance, the mutualization of risk, could be questioned. From the insurance companies' standpoint, this fear is unfounded since the base of coverage and prices is the relatively low probability of the occurrence of the claim, and a multitude of insurance premiums cover that value. Furthermore, as stated above, the risks and causes of claims evolve constantly, and the probability of the claim, therefore, never ceases to be an approximation.

Another example of this problem appears with the granting of credits, mentioned above. Many believe that thanks to AI tools, banks can be more accurate when deciding which people are good candidates for a loan. Based on specific variables, the algorithms determine whether an individual is more or less likely to end up on the delinquency list. Some are convinced that this is good for everyone, for banks and citizens, since the deterioration of the loan portfolio and / or the reckless granting of loans (as was seen in the 2008 financial crisis) result in widespread social suffering. Accurate information also allows banks to determine more precisely their level of required reserves, which can help them not to excessively limit the granting of new loans.

The issue is that it is necessary to rethink some decisions with the arrival of AI tools. For some people, the introduction of automatic processes appears like something opaque, whereas previous decisions were taken by humans, though supported by traditional statistical tools. The difficulty comes from the characteristics of precision and scalability when it is the statistics that get to judge individual behaviors. Independent controls, specific audits, and new instances of corporate social responsibility will be needed in order to prove the good faith of companies when designing the criteria and the purpose of algorithms. The control cannot depend exclusively on regulation and the public sector, which probably does not have the

capacity for that. There is a need for an ethical, and not exclusively functional rationale to be applied inside the main business operation processes. In other words, it is necessary to "rethink" each business model according to AI technology. These new tools affect not only traditional functions, but also allow addressing new risk, while at the same time raising ethical questions different from traditional ones in their nature and dimension.

### **The moral distance**

In the 12th century, the Lateran Council banned the crossbow: it was considered that since the arrow reached targets that were out of sight of the archer, he could not morally judge the effect of his works. This problem is called moral distance. What happened with the crossbow in the Middle Ages is what seems to happen in the 21st century with digital technologies. "Moral distance" affect those who decide on the use of algorithms and databases. Proximity is critical in making moral decisions, but proximity is eliminated with AI tools that operate based on categories and segments defined far from their real object.

Some suspect that moral distance may not be a concomitant effect of technological innovations, but something sought as a goal to complete the consumer society. Once again, the use of AI makes it necessary to develop different rationality that incorporates purposes of general interest, to compensate for this distance since it is materially inevitable that it arises. Talking about ethics is not making a second assessment regarding a previously made decision; it is a form of rationality that must be reinforced and educated; affectivity must be included in it, but it cannot be decisive.

The advancement of the use of the digital footprint and AI highlights a latent risk of "moral regression" in our society. As seen in the current COVID-19 crisis, technology is essential to attack the pandemic and its consequences. However, some decisions and priorities cannot be made based on calculation but are deliberative. To address them, the unilaterally determined ("pre-conventional" in Lawrence Kohlberg's terminology) approaches, typical of machines, are not enough, nor are the conventional criteria pending from public opinion or authority sufficient. It is essential to develop the "post-conventional" moral capacity, that is, the autonomous ethical judgment of the agents. Promoting this own ethical capacity means that institutions, both private and public, maintain spaces where people have freedom of opinion (even when their idea is contrary to what automated processes dictate) and where expert advice is a way to contrast technical decisions.

**Attendees:**

1. **Albert Cortina**, Lawyer, Expert in Transhumanism Director of the DTUM study
2. **Alfredo Marcos Martínez**, Professor of Philosophy of Science, Universidad de Valladolid
3. **Alfredo Pastor Bodmer**, Economist, Profesor emérito, IESE
4. **Ángel Gómez de Agreda**, Colonel Chief, Geopolitical Analysis Area, DICOES/ SEGENPOL
5. **Ángel González Ferrer**, Executive Director, Digital Pontifical Council for Culture
6. **Carlos Losada Marrodán**, Professor, Department of Strategy and General Management , ESADE
7. **Carolina Villegas**, Researcher, Iberdrola Financial and Business Ethics Chair, Universidad Pontificia de Comillas
8. **David Roch Dupré**, Researcher, Instituto de Investigación Tecnológica
9. **Diego Bodas**, Lead Data Scientist de Mapfre
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. **Juan Benavides**, Professor of Communications, Universidad Complutense de Madrid
24. **Pablo García Mexía**, Digital Jurist, Of Council Ashurst LLP
25. **Paul Dembinski**, Director, Observatoire de la Finance en Ginebra
26. **Raúl González Fabre**, Professor, Universidad Pontificia de Comillas
27. **Richard Benjamins**, Data & IA ambassador, Telefónica
28. **Samuel Privara**, cybernetics, robotics and artificial intelligence expert