

BLOCKCHAIN AND ARTIFICIAL INTELLIGENCE. REFLECTIONS SEEN FROM PRIVATE INTERNATIONAL LAW

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Rapid technological change and its development have led to an era of technology and applications that are leading us to transversal changes, based on the data that nourishes the Internet. This change is taking place through the Internet of things (IoT), machine-to-machine communications (m2m), robotics, big data, Blockchain or Artificial Intelligence (AI). The reason is the current trend of automation in the EU, called Industry 4.0. All of these are expected to change the economic functioning of companies and have a huge impact on society. We are facing an urgent matter according to the analysis carried out by the European Commission, which emphasizes the strengths of the European digital industry, but also expresses the fear that the added value will be displaced en masse from industrial agents towards the owners of digital platforms private, and highlights the lack of common standards and interoperable solutions. Therefore, we are facing an era of technology and applications that represent important changes in our legal system.

We are going to focus on AI and Blockchain technology; As is well known, recent debates have revolved around the need to regulate the sphere of AI itself and establish limits, to prevent the development of so-called artificial general intelligence, that is, an intelligent system comparable to intellectual capacity. human or even superior to it, and the need to teach ethics to the aforementioned systems. On the other hand, regarding, Blockchain is becoming popular and its continuous attempts at implementation have led to the emergence of new legal challenges around trust for the digital society in the future. In this sense, it can be seen how the automation of contracts has increased (Smart Contracts, Smart Contract), that is, the possibility that actions related to contracts are carried out on the basis of a pre-programmed code and without a human review or other interventions. Automation can occur at different stages of the contract life cycle: conclusion, completion, and fulfillment. De esta forma, si bien debe tenerse muy presente que la IA va a plantear retos en su aplicación, tanto en el ámbito jurídico público como privado, no debemos perder de vista el Blockchain, que si bien se centra en la validación, permanencia y conseguir mayores niveles de certeza, control y confianza, va a plantear el reto de actuar en conjunto a la IA; es decir, Blockchain tiene la misión de generar confianza, transparencia y actuar de mediador. Por lo que va a tener el desafío de hacer posible que las IA actúen y se conecten entre sí.

The smart contracts can have significant advantages in terms of implementation costs and governance of the contract, particularly with regard to monitoring compliance. However, it should be borne in mind that current regulations have not yet recognized the specific characteristics of these contracts, neither to Blockchain technology, nor to artificial intelligence. Therefore, in our view, it is vital to establish a legal framework, especially in an international context, which includes its real applicability.

In smart contracts, the contracting parties have to deal with the uncertainty as to the extent of due diligence with regard to the development of algorithms or potential liability for malfunctions of the system, in order to assign responsibility for infractions and damages that may arise from artificial intelligence. To the aforementioned, a complexity must be added: the international context of the transaction. Electronic communication easily crosses borders without having any specific link to the territory where the technology is located and users participate in global activities, without the need for a physical presence within the forum state.

To give security to the transaction to be carried out, Blockchain arises, as a decentralized technology, which carries some legal uncertainties, such as the legal nature of blockchains and

shared digital records, which includes problems of judicial competence and applicable law; therefore, each node of the network may be located in a different place as there is no "central party" responsible for the digital registry, whose nationality could be used for regulation.

As the Internet becomes part of everyday life, there is a need to study the adaptation of private international law systems to new demands. Therefore, we intend to analyze, deepen the debate and to respond to problems, briefly raised, in order to contribute, as far as possible to give certainty to liability, due diligence, contracts on intelligence systems artificial intelligence, as well as the condition of artificial intelligence and the attribution of its acts of legal significance and the use of Blockchain technology in the formation of smart contracts, to mention some pertinent issues, as we say, from a perspective of private international law.

In short, it is intended to develop the issues described keeping in mind that most of the operations carried out on the web are international, when we encounter one or more foreign elements. The Internet has practically made the distinction between internal trade and international trade disappear. This internationality is linked to the uncertainty about who are the competent bodies to resolve disputes that arise in this new space, as well as to determine the applicable law.