



Introduction: The influence of new technologies on law

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Abstract

The so-called fourth industrial revolution has brought with it a digital society in constant construction. The digital transformation and the incorporation of advanced technologies, such as information and communication technologies, as well as the irruption of new digital media, are transforming many areas of our lives. This new reality has become a component of our daily lives (to which we are increasingly accustomed) and its potential to transform various aspects of our lives has only grown exponentially in recent decades. This transformation has also made its way into the field of law, bringing about a profound change in citizens' perception of justice. Moreover, advanced technologies, such as artificial intelligence, are causing a transformation in the field of law with far-reaching ethical and regulatory implications. A transformation that poses enormous challenges and that can affect individual rights that we thought were consolidated. That is why the purpose of this volume is to offer a vision of how these types of technologies are being used in the field of justice and in the field of judicial processes, examining the challenges and dangers that they entail.

Key words

New technologies; artificial intelligence; digital media; law; justice; judicial process

Resumen

La llamada cuarta revolución industrial ha traído consigo una sociedad digital en constante construcción. La transformación digital y la incorporación de tecnologías

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avanzadas, como son las tecnologías de la información y de la comunicación, así como la irrupción de los nuevos medios de comunicación digitales están transformando muchos ámbitos de nuestras vidas. Esta nueva realidad se ha convertido en un componente de nuestra vida cotidiana a la que cada vez estamos más acostumbrados y su potencial para transformar diversos aspectos de nuestras vidas no ha hecho sino crecer exponencialmente en las últimas décadas. Dicha transformación ha venido, también, a abrirse camino en el campo del Derecho provocando un cambio profundo en la percepción que los ciudadanos tienen de la Justicia. Es más, las tecnologías avanzadas, como la inteligencia artificial, están provocando una transformación en el ámbito del derecho con implicaciones éticas y normativas de gran trascendencia. Una transformación que plantea enormes retos y que puede llegar a afectar a derechos individuales que creíamos consolidados. Es por ello por lo que el propósito de este volumen sea el de ofrecer una visión de cómo se están utilizando este tipo de tecnologías en el campo de la justicia y en el ámbito de los procesos judiciales, examinando los retos y peligros que los mismos entrañan.

Palabras clave

Nuevas tecnologías; inteligencia artificial; medios de comunicación digital; derecho; justicia; proceso judicial

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1. Introduction

The latest technological advances are here to stay and to bring about a profound transformation of our society. One example is artificial intelligence.

Artificial intelligence is a rapidly advancing field of computer science that aims to develop machines capable of performing tasks that normally require human intelligence, such as visual perception, speech recognition, decision making and language translation.

The applications of artificial intelligence are diverse and span many sectors, such as healthcare, finance, transportation, manufacturing and entertainment, urban planning, automated decision making, digitization of archives, etc. Artificial intelligence is also being used to improve medical diagnostics, personalize marketing campaigns, optimize supply chain management, improve cybersecurity, develop autonomous vehicles, etc.

As expected, justice has not been left out of this transformation. The use of artificial intelligence algorithms has expanded into the field of justice administration. In this regard, it is worth noting that intelligent technologies have been incorporated into numerous acts involved in criminal investigation. Thus, for example, these types of tools have been used to help in the investigation of crimes and the possible perpetrators. They have also been used to determine the degree of recidivism of criminally responsible persons. Some programs have even been developed in some sectors of the fight against organized crime. In this evolution of machines at the service of criminal investigation, some other technological tools have also been incorporated that were unthinkable only a few years ago, such as, for example, the so-called facial recognition technology, which makes it possible to identify people in a photo or in an image captured on a security camera.

A good example of algorithms used in the field of justice are the so-called risk assessment algorithms. Risk assessment algorithms are mathematical formulas that combine extensive data on an offender's criminal history with other biographical and psychological data to derive a score that classifies an offender into different risk categories. The score is then applied to judgments about parole, placement in rehabilitative programs and, most problematically, sentencing, depending on the entity in the system using it. An example of a program based on this type of algorithm is the well-known Correctional Offender Management Profiling for Alternative Sanctions program, developed by the company Northpointe.

There are many other examples of the use of new technologies and artificial intelligence in the field of law. For example, the well-known *Prometea* program, which is the first predictive artificial intelligence program at the service of Justice in Argentina, created by two officials of the Public Prosecutor's Office of Buenos Aires. Other well-known programs are the so-called Legal Decision Support Systems, which offer support services for the predictability of the possible outcome of a court case. Also, there is the so-called *Jurimetrics*. This technology is an innovative jurisprudential analytical tool, which allows to define the most suitable procedural strategy for the success of a specific case, through interactive graphical indicators, based on the cognitive analysis of millions of judicial decisions.

All these technologies based on artificial intelligence are generating growing concern at the international level, given the perception that these transformations entail a loss of

fundamental rights. We have therefore considered it necessary to address, in this volume, the study of the various problems and challenges arising from the incorporation of these technologies into the field of justice and law, and we have decided to approach this analysis from different perspectives and sensitivities.

2. The contributions of this dossier

This issue is framed in the context of the papers presented at the Workshop on this topic held at the IISL in Oñati in May 2023. In this issue, the various speakers and participants in the workshop have sought to bring together many of the reflections and debates that arose during the workshop. To this end, each participant has undertaken to write an academic article dedicated to the theme of the workshop.

Specifically, this volume is made up of six articles organized in two large blocks. On the one hand, and within the first block entitled *The irruption of artificial intelligence in the field of justice*, the issue begins with three contributions related to the impact of artificial intelligence, on issues as important as the impact of the metaverse on the legal system, the problems arising from the use of predictive artificial intelligence programs, or the influence of the latter on some legal professions. On the other hand, the second block entitled *The influence of mass media and digital media on law* analyzes, from different perspectives and experiences, the incidence of new technologies and digital media, such as the Internet, on important issues such as hate crimes, the challenges of convicted persons to reintegrate into society once they have served their sentences, or the impact of parallel trials on the procedural rights of persons sitting in the bench.

The first section begins with an article by Dr. Joxerramon Bengoetxea Caballero and Dr. Roberto Leopoldo Cruz Balbuena, entitled *Institutions of law in the metaverse*, which analyzes the impact of the so-called *metaverse* on the legal system. In it, they stress the need for legal adaptation to keep up with technological advances. The article explores the asymmetrical relationship between law and technological advances, and warns about the problems arising from this asymmetrical relationship, which is expanding at an increasingly rapid pace.

The second article, written by Javiera Farías Pereira and entitled *The relevance of the data collection process in the VioGén system from a feminist perspective*, analyzes the artificial intelligence program *VioGén*, a predictive and algorithmic police tool that has been implemented in Spain since 2007. The main objective of this predictive program is to evaluate the risk that a woman who denounces gender violence, within her relationship, may be assaulted again. Based on this prediction, measures for her protection are proposed. In this sense, the work focuses on one of the most essential parts of the program's operation: the data collection process, and the problems derived from this process.

The third contribution is by Dr. Francisco Javier Fernández Galarreta. The contribution, entitled *The future of court's procurators with the advent of artificial intelligence technologies*, analyzes the impact of the incorporation of new information and communication technologies, as well as the incorporation of different artificial intelligence tools, in the field of the administration of justice. Specifically, it analyzes the impact of these digital solutions on the future of some legal professionals, such as, for example, lawyers and, above all, court attorneys. In this sense, it reflects on the possibility that in the not-too-

distant future these legal professionals may be replaced by intelligent machines, in the functions of defense and representation of citizens before the courts.

The second section, dedicated to the impact of new technologies and digital media on justice and law, begins with the fourth contribution by Dr. Iñigo Gordon Benito, entitled *Public order offences: how feasible is their applicability to online hate?* In this contribution, the author presents the problem of online hate crimes in the United Kingdom. He analyzes and highlights the problems arising from the foundational basis of hate crimes as public order offenses in the UK, pointing out that they run the risk of blurring if their applicability is extended to digital hate speech and, therefore, to any impersonal form of acting.

The fifth contribution is presented by Dr. Iker Nabaskues Martínez de Eulate and is entitled *Trials by media: some cases*. The article analyzes the famous Rocío Wanninkhof case, which is considered the most important case of judicial error and parallel trial in the democratic Spain. The author critically presents how, during the trial sessions, the media drew a very defined profile of the alleged murderer, Dolores Vázquez, who was imprisoned, tried and found guilty of the murder, by a popular jury highly influenced by the parallel trial to which the accused was subjected.

The sixth and last article that closes the volume is by Dr. Mikel Anderrez Belategi, entitled *The right to be forgotten concerning the criminal past: Developments in the case law of the European Court of Human Rights with particular reference to the anonymisation of digital press archives*. In this article, the author presents the problems and challenges faced by the convicted person when reintegrating into society after serving his or her sentence. In this regard, the author reminds us that one of the most important obstacles to reintegration is precisely the continuous availability of information about their criminal conviction. In particular, in the context of the issue of the anonymization of digital press archives.

These six articles, presented here, come, in short, to provide us with different points of view regarding the problems arising from the digital transformation we are witnessing due to the incorporation of new technologies and artificial intelligence. Hopefully, the range of perspectives addressed in the aforementioned articles will be a starting point for proposing a critical theoretical framework that can serve to respond to the new challenges we are facing with the irruption of new technologies in the field of justice and law. Thus, in the hope that they will serve to inspire reflection on the problems we have been referring to, we close these lines hoping that the articles that have been presented will be to the reader's satisfaction.

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