Research article
UDC 34:004:316:004.8
EDN: https://elibrary.ru/uunzfp
DOI: https://doi.org/10.21202/jdtl.2024.3

Algorithms, Sociology of Law and Justice

Fernando Galindo Ayuda
University of Zaragoza, Zaragoza, Spain

Keywords

administration of justice,
algorithm,
artificial intelligence,
communicative theory of law,
digital technologies,
justice,
legal conflict,
legal technologies,
(LegalTech),
sociology of law

Abstract

Objective: to determine the possibility of professional legal activity automation and to identify the limitations that in a democratic society are associated with the use of software capable of generating effective legal solutions in conflict situations.

Methods: the conducted empirical research is based on the methodology of social sciences, sociology of law, principles of communicative and communicational theories of law, and formal-legal analysis of legal documents.

Results: the paper presents examples of functioning of computer systems that imitate some specific aspects of human intelligence in decision-making. The concept of algorithm and the main characteristics of tasks performed by artificial intelligence systems are defined. The relevance, methods and achievements of sociology of law are outlined, which underlie the systems or computer programs helping to resolve legal conflicts. It is found that the research tools developed as a methodology within the sociology of law since its emergence will be more widely used in the future, due to the growing use of information and communication technologies in legal activities. It is shown that in the administration of justice it is impossible to generate solutions only on the basis of artificial intelligence, since law and the process of making legal decisions on its basis has more complex characteristics in a democratic society. It is emphasized that obtaining the desired legal result is not limited to the processes of algorithmization, categorization or formal exegetics of legal texts. It rather consists in understanding and thinking in accordance with the accepted values, meanings, evaluative criteria, strategies, perspectives, etc.

Scientific novelty: the article reveals the significance of the principles of communicative and communicational theories of law under the development of information and communication technologies in legal activity. The main limitations of the use of artificial intelligence in legal activity and, in particular, in justice are identified.

Practical significance: the formulated provisions help, while improving legal regulation, to avoid insufficiently justified decisions on the automation of law enforcement, as well as to take into account the increasing importance of the principles of communicative and communicational theories of law in such types of legal activities as creation, interpretation and application of laws.

For citation

Galindo Ayuda, F. (2024). Algorithms, Sociology of Law and Justice. *Journal of Digital Technologies and Law, 2*(1), 34–45. https://doi.org/10.21202/jdtl.2024.3

Contents

Introduction

The extension of the use of information and communication technologies in practically all kinds of activities, including those of jurists, has meant that the research tools developed as a methodology by the sociology of law since its appearance have at this time, and foreseeably in the future, a wide use. As we shall observe in this paper, thanks to this fact, today it is possible to know with respect to a certain matter or conflict that a lawyer must deal with professionally, for example, the following: a) judgments taken in a certain place on similar matters; (b) the possible content of the decision, if the judge deciding on the particular case has decided on previous similar cases; (c) any arguments made by the lawyer of the other party to the proceedings if that lawyer has previously participated in a similar case, and the content of the decision adopted by the respective judge in the judgment promulgated; d) the average time of obtaining the decision in similar cases by the judges or courts of the competent jurisdiction.

For this to occur, it has been necessary to carry out the necessary empirical work, using the methodological proposals of the social sciences, here the sociology of law, in order to select, store, compare and retrieve the information and the themes indicated as an example. It has also been necessary to use the appropriate algorithm, that is, it has been necessary to provide the program that provides the expressed results with the instructions or the steps that are necessary to solve the questions considered, or, more specifically, to achieve the corresponding objective to be achieved (Heitkemper & Thurman, 2022; Ojiako et al., 2018; Milchram et al., 2018; Nagtegaal, 2021).

Through the expansion of the so-called artificial intelligence programs, it is even possible to think that, through the operation of the appropriate algorithms or programming steps,

a proposal for the resolution of the conflict in question can be automatically generated, satisfying: the equivalence or not of the cases, the resolution in favor of the interests of the person who asks the question, the expected duration of the procedure ... This is foreseen by the lawyers movement called "LegalTECH" that in Spain as in other countries makes proposals in tune with those of this type in its publications[1].

We deal with this issue in this work attending to the following. First, it presents some indications on the operation of computer programs, taking as a reference the consideration of what are the algorithms and the basic characteristics of the objectives that artificial intelligence programs pose. Secondly, it realizes the relevance of the sociology of law, its methods and achievements, which have even helped to generate systems or programs to help resolve legal conflicts. Thirdly, it is explained that it is not possible in the field of the administration of justice to generate decisions or products of artificial intelligence, given the complex characteristics of the law and the process of drafting legal decisions in a democratic society. Finally, a conclusion is reached.

1. Algorithms and artificial intelligence

Computer programs, also those called artificial intelligence programs, are responsible for performing calculations in order to solve problems. These calculations are satisfied, complying with the corresponding algorithm, with data that express the information that is stored in what are called databases that make up everything that today constitutes the Internet (Papagianneas & Junius, 2023; Swofford & Champod, 2022). The algorithm is the set of instructions that must be followed to solve a problem or complete a task. Donald Knuth, considered the father of modern computer programming, defines the algorithm as... "merely being a finite set of rules that gives a sequence of operations for solving a specific type of problem" (Knuth, 1997). Algorithms are used in many different fields as well in science, engineering, computing, business, also in programs that are used as an auxiliary instrument in the professional activities of lawyers.

What do artificial intelligence tools do? According to the literature, as it is said, for example, in Russel and Norvig, these tools are intended to calculate data, dealing with the

[1] An example of the extension of this position is collected in Spain in the book: Guide LegalTECH. (2022). Madrid: Derecho Práctica. https://clck.ru/38fG9Q. The book presents program content computer offered by companies and used by lawyers in their daily practice. Contains 150 reference cards. The Guide is subtitled: "Analysis of tools and platforms to transform the legal professions". More than 30 Spanish experts, basically lawyers, have participated in its elaboration. The reference is, in particular, to applications, developed by companies that move in a legal field both Spanish and different from Spanish. As it is stated by the Guide, the systems proposed in the book allow to assist: the analysis and review of contracts, the preservation of the Cybersecurity and privacy, access and use of legal databases, document and process automation, training, expansion of commercial offers of legal services and networks of lawyers, performance of legal services and claims online, and the use of legal management programs or software... This means that the programs come to assist and even replace to all types of legal activities. It should be noted here that many referred applications are built: 1) preferably from the English language, and 2) in the scope of action of the "common law", legal style that differs significantly from that of "civil law" practiced in Spain and the countries of the European Union for its follow-up to the "precedent rule". On the relevance of the appeal to the artificial intelligence suffice it to say that the Guide contains references to the same in 26 pages of the 184 of which it consists.

following (Russel & Norvig, 2021): machine learning, natural language processing, computer vision and robotics. That is to say they are tools that are used to make: machine learning, natural language processing, computer vision and robotics. That is to say they are tools that are used to make: programs / constructions / formulas / calculations / information / numbers / algorithms / texts / databases.

Art. 3, 1 of the proposal for an European Regulation on artificial intelligence [2] specifies something more what has been stated so far by saying: "'artificial intelligence system' (AI system) means software that is developed with one or more of the techniques and approaches listed in Annex I and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with"; Annex 1 of the regulation states: "a) Machine learning approaches, including supervised, unsupervised and reinforcement learning, using a wide variety of methods including deep learning; (b) Logic- and knowledge-based approaches, including knowledge representation, inductive (logic) programming, knowledge bases, inference and deductive engines, (symbolic) reasoning and expert systems; (c) Statistical approaches, Bayesian estimation, search and optimization methods[3]".

Expressions that show that artificial intelligence only simulates some specific aspects of human intelligence. They do not carry out, on the other hand, all the tasks of this intelligence, which are not only calculation and speed, but also understanding and reflection according to values, senses, criteria, vital perspectives or points of view. Therefore, it is impossible to resolve conflicts with the tools of these programs in which it is necessary to comply with the rules and procedures accepted in a democratic society, since such a resolution necessarily involves lawyers, officials and even citizens who are part of the conflict and their solution.

2. Sociology of law and jurimetrics

The sociology of law is a discipline that studies the relations between law and society. It uses social science research methods to understand the origin, evolution, function and impact of law on society. The most significant methods used by the subject are: participatory observation, interviews, surveys and document analysis.

The sociology of law has been put into practice for a long time: since the beginning of the twentieth century. Significant initiators of it are, in the United States, Judge Oliver Wendell Holmes (1897), and, in Europe, Eugen Ehrlich (1913). Precursor statements of both, announcing the need to develop the methods proper to the sociology of law indicated, are: "The prophecies of what the courts will do in fact, and nothing more preteintious, are what I mean by the law" (Holmes, 1987), and "Wir brauchen ja nur die Augen und Ohren zu öffnen, um alles zu erfahren, was für das Recht unserer Zeit von Bedeuting ist" (Ehrlich, 1913; Ferreira & Gromova, 2023).

With these precedents, it is not surprising that in 1959 appeared a journal, founded by the American Bar Association entitled "Jurimetrics", a journal that is still published today

[2] European Parliament. (2023, June 14). Proposal for a regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial intelligence act) and amending certain Union legislative Acts COM/2021/206 final. https://clck.ru/349gqF

[3] Ibid. https://clck.ru/349gqF

and that, with the name "Jurimetrics, The Journal of Law, Science, and Technology", since its refoundation in 1966, is dedicated to the study of law and science[4].

In coherence with the above, the development of information technologies has allowed that under the name "Jurimetría" has already recently built a program of ordering that, according to its authors, the company La Ley in collaboration with Google Spain,... "It is a powerful web platform that allows the lawyer to explore and analyze in a simple and intuitive way information never before available as the most relevant parameters around a specific judicial process, including duration, probability of appeal and prediction of its outcome, trajectory of the judge or magistrate in charge, jurisprudential lines around the subject raised, arguments more likely to succeed in a specific procedural context as well as knowledge of the background, experience and arguments of the counterparty or the company party to the litigation in similar cases". That is to say: the program enables what was mentioned as hypothetically possible at the end of the Introduction of the present work.

On the other hand, it should be added that on the same page Web also seems to say about the program something more by stating that: "With Jurimetría and thanks to the combination of the best cutting-edge technology in Artificial Intelligence with the knowledge of the legal experts of THE LAW, the costly preliminary research work for the definition of the strategy around a process is already simply history"[5]. Does this proposal mean that the answer to the question we asked ourselves at the beginning of this work can be definitive? In other words, from what has just been said, the following question can still be asked: can artificial intelligence systems, as defined by Parliament and the European Commission, are able to generate output information such as content, predictions, recommendations or decisions that influence the environments with which it interacts for problems specific to the administration of justice such as the preparation of sentences?

We consider this issue further.

3. Justice

We anticipate that the answer to the question remains in the negative. It is focused, basically, on the following considerations:

1) The widespread questioning of the positivist claim, established in the eighteenth century by Montesquieu; he said that the text of the law is the same as the law, its only point of reference (Montesquieu, 1964); regardless of assume, as is done today, that attention must also be paid to the content and characteristics of specific conflicts, and of the different legal activities whose implementation is necessary to provide solutions to them.

2) The fact that, consistent with the above, it has been maintained for some time, on the other hand, as we express below, that the text of the law is not the only reference, but that it

4 https://clck.ru/38fGJF

5 La herramienta de analítica jurisprudencial predictive más innovadora del mercado. Jurimetria. https://clck.ru/38fGLX

is appropriate to consider that so is the communication, in which said text is concretized by the citizens and jurists through their different statements and activities.

This proposal, called the communicative theory of law, implies, essentially, recognizing that a style of action or policy consistent with legal texts should not prevent admitting that jurists (judges and lawyers, exemplary) must act at all times in a complex way, compatible with democracy and the field of communication. This complexity is exposed by Gunther Teubner, for example, referring to Humberto Maturana, in the following: "The legal system, like other autopoietic systems, is seen as nothing but an 'endless dance of internal correlations in a close network of interacting elements, the structure of which is continually being modified ... by numerous interwoven domains and meta-domains of structural coupling'" (Teubner, 1993).

This change of perspective is also explained in the works of Gregorio Robles. Especially in his Theory of Law (Robles, 2021). In this work, the author studies the legal decisions that occur in the Rule of Law, taking into account that the judges decision is the exemplary legal decision, since it is the one that resolves the conflicts that the Law deals with. The book proposes, therefore, to carry out the study of Law not of legal texts but from the communication that takes place on language in each of the legal activities.

Robles calls this study the communication theory of law. He refers to it as follows: "The communication theory of law is so called because it adopts the perspective of communication, and therefore of language, to study the legal phenomenon. It does not proclaim that the Law is language, which would imply an ontological position, but affirms that Law, everything that refers to this word, is manifested through language. Language is thus the point of incipient research" (Robles, 2018).

It is important to consider that these proposals, when looked at in the communication, establish the complex scope of action through the corresponding activities of legal professionals in any type of society that is governed by the principles and rules of the rule of law. All of which allows us to recognize that although compliance with the text of the law is a guarantee of the proper functioning of legal activities, it is not the only requirement to be satisfied by legal activities. This is because democratic principles, by legal mandate, govern the activities of professionals. In other words, that democratic rules, including that of citizen participation, and those of communication govern all activities that fall under their jurisdiction.

That this is particularly true of law enforcement activity in the judicial field is indicated by the fact that, according to generally recognized statements over the past two centuries, it is said that such enforcement must be carried out on the basis of communication: in a complex manner (Ehrlich, 1903), in the judicial process (Perelman & Olbrechts-Tyteca, 1989), through mechanisms such as weighting (Engisch, 1996), the characteristics of legal life (Esser, 1956), empathy (Gadamer, 1977), topics (Viehweg, 1964), participation or autopoiesis (Maturana & Varela, 1984) and consensus (Habermas, 2016; 1981), as is typical of democratic governance (Carbonell, 2008).

This contrasts with the belief in the positivist application of the legal text, carried out in a judicial process as a simple subsumption, automatically. A text whose format, reduced to data, can be dynamised by a technical tool such as an algorithm, or an artificial intelligence program, which is promoted by the lawyers movement "LegalTECH" as mentioned above

(section 1, note 1), in a policy that is sometimes promoted by the authorities as an efficient solution to resolve conflicts in the complex society in which we live.

The proposal defended by the communicative position is: 1) close to promoting compliance with the Sustainable Development Goals approved by the United Nations in September 2015; especially those of Goal 16 which are stated as follows: "Promote peaceful and inclusive societies for sustainable development, facilitate access to justice for all and build effective and inclusive accountable institutions at all levels"[6]; 2) in line with the precautions being taken by the European Union with regard to the general use of artificial intelligence, by declaring that the practice of this technology in the field of "law enforcement" has a "high risk"[7]; 3) present in the limiting conditions of the use of systems that declare uses artificial intelligence in the legal field when bidding the program called "Jurimetría"[8].

Conclusions

The democratic requirements of the rule of law must be examined in the exemplary context of their judicial application in order to offer more complete and complex solutions than those based solely on efficiency, subsumption, algorithm or formal exegesis of legal texts. The foregoing does not prevent accepting as an undeniable fact that technologies and the Internet can facilitate the implementation of democratic political systems. Particularly when politicians, technicians, jurists and citizens attend to what the communicative and communicational theories of law propose. We have already said that these theories emphasize the role of communication in legal activities as creation, interpretation and application of laws.

---

6 It should be borne in mind that Goal 16 has, among others, the following targets: 16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all. 16.6 Create effective and transparent accountable institutions at all levels. 16.7 Ensuring adoption at all levels of inclusive, participatory and representative decision-making that responds to needs. 16.9 Of here by 2030, provide access to an identity Legal for all, in particular through birth registration. 16.10 Ensuring access public to the information and to protect fundamental freedoms, in accordance with national laws and international agreements. 16.a Strengthen relevant national institutions, including through cooperation internationally, to create at all levels, particularly in the Countries in development, the capacity to prevent violence and combat terrorism and crime. 16.b Promote and enforce laws and policies non-discriminatory in favour of sustainable development. To the content of Sustainable Development Goals 16 and the corresponding targets, see the link: https://clck.ru/38fGTW

7 The Annex III. 6 of the European regulation on artificial intelligence, mentioned supra note 2, includes the declaration of high-risk artificial intelligence systems that deal with "Law Enforcement Matters".

8 It can be seen that the Terms of Use of the program "Jurimetria" have lower ambitions as the declared in the commercial offer of the program referred to the novel design of this system for its used artificial intelligence, by establishing that the main condition to be accepted by the user is as follows: "As a CLIENT of the Program distributed by LA LEY, you have accessed a tool for jurisprudential analysis, statistics and evaluation of predictability, all as tools to support your professional work in the legal field, to establish which is the best line of argument and your chances of success in a specific legal context, according to the functionalities of this version. The Program is not designed for the use of its statistical and predictive evaluation functionalities for different purposes, particularly for the dissemination, communication, evaluation or censorship of the professional work of judges, magistrates, prosecutors, lawyers, prosecutors or any other officials or professionals involved in the activity of the administration of justice". (Text in capital letters is expressed in the original). These Conditions are accessed at the beginning of their use according to the indications to which the website refers: https://clck.ru/38fGLX

Remember that a democratic legal system today is one that is organized to guarantee and promote through the action (through the interpretation, application, creation of norms, creation of dogmas and access to legal texts) by legal professionals in the face of problems, cases or specific situations, of the following mechanisms exposed by Miguel Carbonell (2008):

1. The fundamental legal principles, recognized in constitutions and laws, as well as in the daily reality of the countries where legal professionals operate.

2. Compliance with prerequisites for the exercise of these mechanisms and principles, such as access to information.

3. The main policy or philosophy guiding the activities of the legal professions: the principles of democratic participation and access to information, and the protection of personal data, intellectual property and the security of information systems.

References

Carbonell, M. (2008). Funcionalidad de la Constitución y derechos sociales: esbozo de algunos problemas. *Estudios Constitucionales*, *6*(2), 43–71. http://dx.doi.org/10.4067/S0718-52002008000100003

Ehrlich, E. (1903). *Freie Rechtsfindung und freie Rechtswissenschaft*. Aalen: Scientia Verlag.

Ehrlich, E. (1913). *Grundlegung der Soziologie des Rechts*. München und Leipzig: Verlag von Duncker & Humblot.

Engisch, K. (1996). *Sentido y alcance de la sistemática jurídica*. *Anuario de Filosofía del Derecho*, *3*, 7-41.

Esser, J. (1956). *Grundsatz und Norm in der richterlichen Fortbildung des Privatrechts*. Tübingen: Mohr.

Ferreira, D. B., & Gromova, E. A. (2023). Hyperrealistic Jurisprudence: The Digital Age and the (Un)Certainty of Judge Analytics. *International Journal for the Semiotics of Law – Revue Internationale de Sémiotique Juridique*, *36*(6), 2261–2281. https://doi.org/10.1007/s11196-023-10015-0

Gadamer, H. (1977). *Verdad y Método. Fundamentos de una hermenéutica filosófica*. Salamanca: Ediciones Sígueme.

Habermas, J. (1981). *Theorie des kommunikativen Handelns*. Vol. I. Frankfurt/M: Suhrkamp.

Habermas, J. (2016). *En la espiral de la tecnocracia*. Madrid: Trotta.

Heitkemper, E. M., & Thurman, W. (2022). Social justice informatics: A critical approach for the future. *Nursing Outlook*, *70*(3), 374–376. https://doi.org/10.1016/j.outlook.2022.02.008

Holmes, O. W. J. (1897). The path of the law. *Harvard Law Review*, *10*(8), 457–478. https://doi.org/10.2307/1322028

Knuth, D. (1997). *The art of computer programming: fundamental algorithms*. Reading: Addison-Wesley.

Maturana, H., & Varela, F. (1984). *El árbol del conocimiento*. Santiago de Chile: OEA/Editorial Universitaria.

Milchram, C., Hillerbrand, R., Van De Kaa, G., Doorn, N., & Künneke, R. W. (2018). Energy Justice and Smart Grid Systems: Evidence from the Netherlands and the United Kingdom. *Applied Energy*, *229*, 1244–1259. https://doi.org/10.1016/j.apenergy.2018.08.053

Montesquieu, C. (1964). *L'Esprit des Lois et la querelle de l'esprit des lois. Oeuvres completes (1748)*. París: Ed. du Seuil.

Nagtegaal, R. (2021). The impact of using algorithms for managerial decisions on public employees' procedural justice. *Government Information Quarterly*, *38*(1), 101536. https://doi.org/10.1016/j.giq.2020.101536

Ojiako, U., Chipulu, M., Marshall, A., & Williams, T. (2018). An examination of the 'rule of law' and 'justice' implications in Online Dispute Resolution in construction projects. *International Journal of Project Management*, *36*(2), 301–316. https://doi.org/10.1016/j.ijproman.2017.10.002

Papagianneas, S., & Junius, N. (2023). Fairness and justice through automation in China's smart courts. *Computer Law & Security Review*, *51*, 105897. https://doi.org/10.1016/j.clsr.2023.105897

Perelman, Ch, & Olbrechts-Tyteca, L. (1989). *Tratado de la argumentación. La nueva retórica*. Madrid: Gredos.

Robles, G. (2018). *Cinco estudios de teoría comunicacional del derecho*. Santiago de Chile: Ediciones Olejnik.

Robles, G. (2021).*Teoría del derecho. Fundamentos de teoría comunicacional del derecho*. *Vol. III*. Navarra: Aranzadi.

Russell, S., & Norvig, P. (2021). *Artificial intelligence: a modern approach*. Hoboken: Pearson.

Swofford, H., & Champod, C. (2022). Probabilistic reporting and algorithms in forensic science: Stakeholder perspectives within the American criminal justice system. *Forensic Science International: Synergy*, *4*, 100220. https://doi.org/10.1016/j.fsisyn.2022.100220

Teubner, G. (1993). *Law as an autopoietic system*. Oxford: Blackwell Publishers.

Viehweg, T. (1964). *Tópica y Jurisprudencia*. Madrid: Taurus.

Author information

Fernando Galindo Ayuda – PhD, Full Professor of Philosopy of Law, Department of Criminal Law, Philosophy of Law and History of Law, University of Zaragoza; Member of the Spanish Royal Academy of Jurisprudence and Legislation, Section of Philosophy of Law
Address: 12, Pedro Cerbuna, 50009 Zaragoza, Spain
E-mail: cfa@unizar.es
ORCID ID: https://orcid.org/0000-0001-8339-1788
Scopus Author ID: https://www.scopus.com/authid/detail.uri?authorId=24324858600
WoS Researcher ID: https://www.webofscience.com/wos/author/record/I-3064-2018
Google Scholar ID: https://scholar.google.com/citations?user=clc_O5YAAAAJ

Conflict of interest

The author declares no conflict of interest.

Financial disclosure

The research had no sponsorship.

Thematic rubrics

OECD: 5.05 / Law
PASJC: 3308 / Law
WoS: OM / Law

Article history

Date of receipt – August 4, 2023
Date of approval – August 16, 2023
Date of acceptance – March 15, 2024
Date of online placement – March 20, 2024

Научная статья
УДК 34:004:316:004.8
EDN: https://elibrary.ru/uunzfp
DOI: https://doi.org/10.21202/jdtl.2024.3

Алгоритмы, социология права и правосудие

Фернандо Галиндо Аюда

Университет Сарагосы, Сарагоса, Испания

Ключевые слова

алгоритм
искусственный интеллект,
коммуникативная теория права,
лигалтех (LegalTech),
право,
правоприменение,
правосудие,
социология права,
цифровые технологии,
юридический (правовой) конфликт

Аннотация

Цель: определение возможности автоматизации профессиональной юридической деятельности и выявление ограничений, которые в демократическом обществе связаны с использованием компьютерных программ, способных генерировать эффективные правовые решения в конфликтных ситуациях.

Методы: проведенное эмпирическое исследование опирается на методологию общественных наук, социологию права, принципы коммуникативной и коммуникационной теорий права, формально-юридический анализ правовых документов.

Результаты: в работе представлены примеры функционирования компьютерных систем, имитирующих некоторые специфические аспекты человеческого интеллекта при принятии решений. Определены понятие алгоритма и основные характеристики задач, выполняемых системами искусственного интеллекта. Обозначена актуальность, методы и достижения социологии права, на основе которых были созданы системы или программы, помогающие в решении правовых конфликтов. Выявлено, что исследовательский инструментарий, разработанный в качестве методологии в рамках социологии права с момента ее появления, получит в дальнейшем более широкое применение, что связано с ростом использования информационно-коммуникационных технологий в юридической деятельности. Показано, что в сфере отправления правосудия невозможно генерировать решения только лишь на основе искусственного интеллекта, поскольку право в демократическом обществе и процесс принятия на его основе юридических решений обладает более сложными характеристиками. Подчеркнуто, что получение нужного юридического результата не ограничивается процессами алгоритмизации, категоризации или формальной экзегетикой правовых текстов, а заключается в понимании и размышлениях в соответствии с принятыми ценностями, смыслами, оценочными критериями, стратегиями, перспективами и др.

Научная новизна: выявлено значение принципов коммуникативной и коммуникационной теорий права в условиях развития информационно-коммуникационных технологий в юридической деятельности; установлены основные ограничения использования программ искусственного интеллекта в юридической деятельности, и в частности в правосудии.

Практическая значимость: сформулированные положения позволяют в ходе совершенствования правового регулирования избежать недостаточно обоснованных решений по автоматизации правоприменительной деятельности, а также учесть возрастающее значение принципов коммуникативной и коммуникационной теорий права в таких видах юридической деятельности, как создание, толкование и применение законов.

Для цитирования

Галиндо Аюда, Ф. (2024). Алгоритмы, социология права и правосудие. *Journal of Digital Technologies and Law*, *2*(1), 34–45. https://doi.org/10.21202/jdtl.2024.3

Список литературы

Carbonell, M. (2008). Funcionalidad de la Constitución y derechos sociales: esbozo de algunos problemas. *Estudios Constitucionales*, *6*(2), 43–71. http://dx.doi.org/10.4067/S0718-52002008000100003

Ehrlich, E. (1903). *Freie Rechtsfindung und freie Rechtswissenschaft*. Aalen: Scientia Verlag.

Ehrlich, E. (1913). *Grundlegung der Soziologie des Rechts*. München und Leipzig: Verlag von Duncker & Humblot.

Engisch, K. (1996). *Sentido y alcance de la sistemática jurídica*. *Anuario de Filosofía del Derecho*, *3*, 7-41.

Esser, J. (1956). *Grundsatz und Norm in der richterlichen Fortbildung des Privatrechts*. Tübingen: Mohr.

Ferreira, D. B., & Gromova, E. A. (2023). Hyperrealistic Jurisprudence: The Digital Age and the (Un)Certainty of Judge Analytics. *International Journal for the Semiotics of Law – Revue Internationale de Sémiotique Juridique*, *36*(6), 2261–2281. https://doi.org/10.1007/s11196-023-10015-0

Gadamer, H. (1977). *Verdad y Método. Fundamentos de una hermenéutica filosófica*. Salamanca: Ediciones Sígueme.

Habermas, J. (1981). *Theorie des kommunikativen Handelns*. Vol. I. Frankfurt/M: Suhrkamp.

Habermas, J. (2016). *En la espiral de la tecnocracia*. Madrid: Trotta.

Heitkemper, E. M., & Thurman, W. (2022). Social justice informatics: A critical approach for the future. *Nursing Outlook*, *70*(3), 374–376. https://doi.org/10.1016/j.outlook.2022.02.008

Holmes, O. W. J. (1897). The path of the law. *Harvard Law Review*, *10*(8), 457–478. https://doi.org/10.2307/1322028

Knuth, D. (1997). *The art of computer programming: fundamental algorithms*. Reading: Addison-Wesley.

Maturana, H., & Varela, F. (1984). *El árbol del conocimiento*. Santiago de Chile: OEA/Editorial Universitaria.

Milchram, C., Hillerbrand, R., Van De Kaa, G., Doorn, N., & Künneke, R. W. (2018). Energy Justice and Smart Grid Systems: Evidence from the Netherlands and the United Kingdom. *Applied Energy*, *229*, 1244–1259. https://doi.org/10.1016/j.apenergy.2018.08.053

Montesquieu, C. (1964). *L'Esprit des Lois et la querelle de l'esprit des lois. Oeuvres completes (1748)*. París: Ed. du Seuil.

Nagtegaal, R. (2021). The impact of using algorithms for managerial decisions on public employees' procedural justice. *Government Information Quarterly*, *38*(1), 101536. https://doi.org/10.1016/j.giq.2020.101536

Ojiako, U., Chipulu, M., Marshall, A., & Williams, T. (2018). An examination of the 'rule of law' and 'justice' implications in Online Dispute Resolution in construction projects. *International Journal of Project Management*, *36*(2), 301–316. https://doi.org/10.1016/j.ijproman.2017.10.002

Papagianneas, S., & Junius, N. (2023). Fairness and justice through automation in China's smart courts. *Computer Law & Security Review*, *51*, 105897. https://doi.org/10.1016/j.clsr.2023.105897

Perelman, Ch, & Olbrechts-Tyteca, L. (1989). *Tratado de la argumentación. La nueva retórica*. Madrid: Gredos.

Robles, G. (2018). *Cinco estudios de teoría comunicacional del derecho*. Santiago de Chile: Ediciones Olejnik.

Robles, G. (2021).*Teoría del derecho. Fundamentos de teoría comunicacional del derecho. Vol. III*. Navarra: Aranzadi.

Russell, S., & Norvig, P. (2021). *Artificial intelligence: a modern approach*. Hoboken: Pearson.

Swofford, H., & Champod, C. (2022). Probabilistic reporting and algorithms in forensic science: Stakeholder perspectives within the American criminal justice system. *Forensic Science International: Synergy*, *4*, 100220. https://doi.org/10.1016/j.fsisyn.2022.100220

Teubner, G. (1993). *Law as an autopoietic system*. Oxford: Blackwell Publishers.

Viehweg, T. (1964). *Tópica y Jurisprudencia*. Madrid: Taurus.

Информация об авторе

Фернандо Галиндо Аюда – PhD, профессор философии права, факультет уголовного права, философии права и истории права, Университет Сарагосы; член Испанской королевской академии юриспруденции и законодательства, секция философии права
Адрес: 50009, Испания, г. Сарагоса, ул. Педро Цербуна, 12
E-mail: cfa@unizar.es
ORCID ID: https://orcid.org/0000-0001-8339-1788
Scopus Author ID: https://www.scopus.com/authid/detail.uri?authorId=24324858600
WoS Researcher ID: https://www.webofscience.com/wos/author/record/I-3064-2018
Google Scholar ID: https://scholar.google.com/citations?user=clc_O5YAAAAJ

Конфликт интересов

Автор сообщает об отсутствии конфликта интересов.

Финансирование

Исследование не имело спонсорской поддержки.

Тематические рубрики

Рубрика OECD: 5.05 / Law
Рубрика ASJC: 3308 / Law
Рубрика WoS: OM / Law
Рубрика ГРНТИ: 10.07.45 / Право и научно-технический прогресс
Специальность ВАК: 5.1.1 / Теоретико-исторические правовые науки

История статьи

Дата поступления – 4 августа 2023 г.
Дата одобрения после рецензирования – 16 августа 2023 г.
Дата принятия к опубликованию – 15 марта 2024 г.
Дата онлайн-размещения – 20 марта 2024 г.