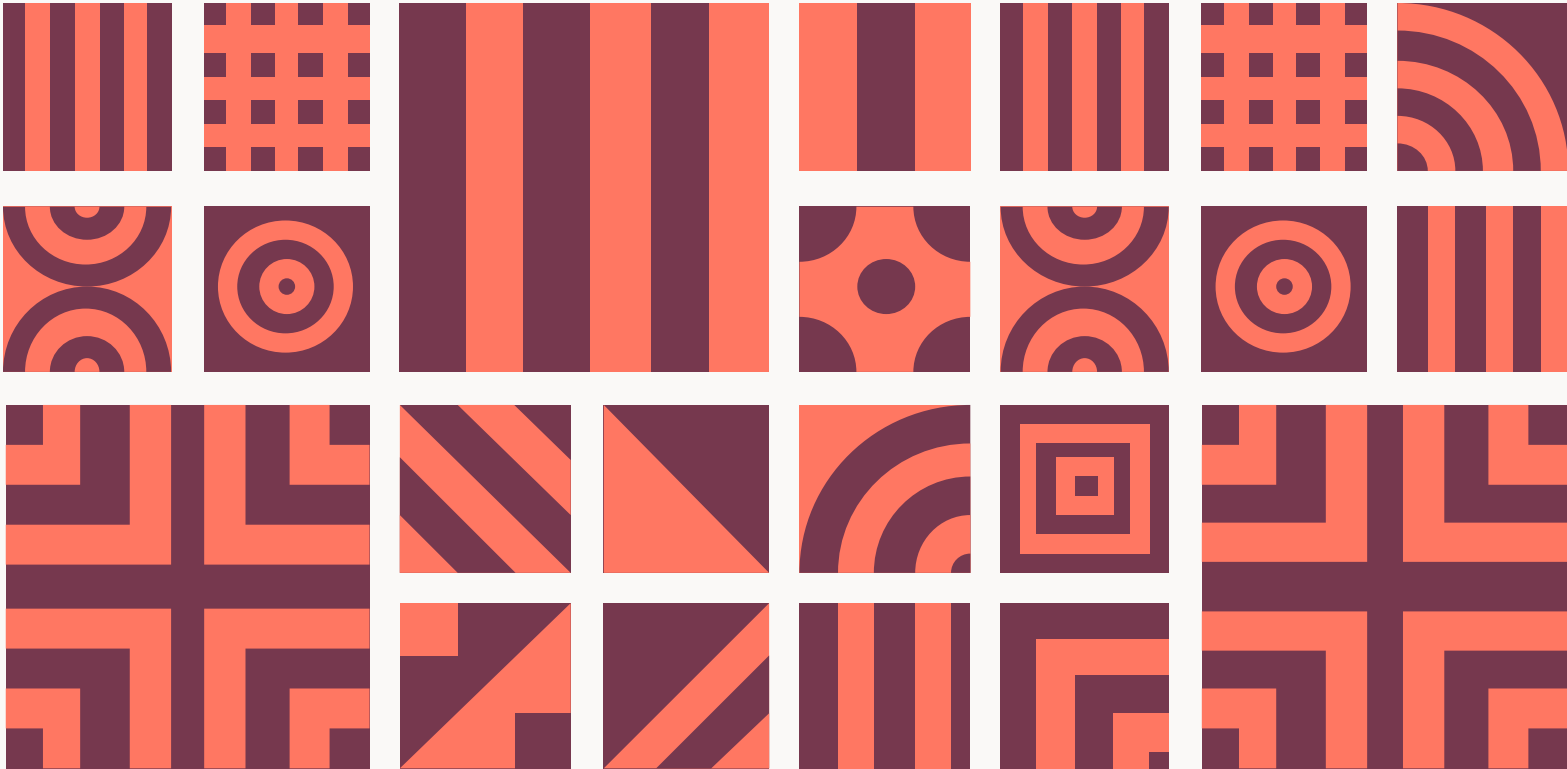# Fiscal Watson: Study on the Use of Artificial Intelligence in the Office of the Attorney General in Colombia

FISCAL WATSON: STUDY ON THE USE OF ARTIFICIAL INTELLIGENCE IN THE OFFICE OF THE ATTORNEY GENERAL IN COLOMBIA

FISCAL WATSON: STUDY ON THE USE OF ARTIFICIAL INTELLIGENCE IN THE OFFICE OF THE ATTORNEY GENERAL IN COLOMBIA

SUMMARY

Fiscal Watson[1] is the name given by the Office of the Attorney General (Fiscalía General de la Nación, FGN) to the tool developed by International Business Machines (IBM) that the FGN acquired in 2017. That tool is the Watson Explorer software package, the expert analytics component of IBM Watson (the Artificial Intelligence (AI) platform developed by IBM), which was later integrated with the Watson Discovery component.

Watson continues to be part of the FGN's technological infrastructure, and it functions, in theory, to match cases logged in the information system for the oral accusatory criminal system (SPOA). However, there is no public information in terms of an analysis of the impact Watson's use could have on rights or transparency.

This study's objective is to examine Fiscal Watson's features in the context of the FGN's investigative work, as well as any consequences it may have for the rights of people involved in legal proceedings, in an inadequate regulatory context in terms of AI.

INTRODUCTION

The implementation of AI-based systems in the public sector is accompanied by debates over their potential risks and benefits. This is particularly true when talking about legal systems in countries where the legal, regulatory and ethical implications of AI are still not fully defined for its application.

Thus, concerns around guaranteeing fundamental rights, the liability of the actors involved when things go wrong, the application — still pending — of risk analysis prior

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1 Translator's note: "Fiscal Watson" translates as "District Attorney Watson".

to implementation, and transparency, traceability and auditing are break points when it comes to analyzing Artificial Intelligence tools in the public sector.

Colombia, following the On-Line Government Strategy, has focused efforts on introducing Information and Communications Technology (ICT) in government processes and procedures, with the goal of improving, automating and making them more efficient, to improve public administration and the government's relationship with citizens (Flórez Rojas & Vargas Leal, 2020).

The constant drumbeat of "*congestión judicial* [judicial congestion]" and "*grandes cargas de trabajo de los operadores judiciales* [huge workloads for judicial operators]" has led to a "techno-fascination" with tools that streamline processes like records management and information infrastructure. For this reason, the legal sector:

> [...] has some characteristics that make it particularly attractive for applying AI. Specifically, the huge volume of information and data generated during the administration of justice makes it an important place for implementing AI techniques that facilitate systematizing, inferring, and generating patterns and predictions in less time and with greater resource efficiency (Aguerre & Bustos, 2021).

In 2017, the FGN acquired Watson Explorer, a component of the AI-based system developed by US-based IBM. According to the company's publications, the system, which they called Fiscal Watson, has made it possible to link and resolve cases in record time.[2]

Implementation of Fiscal Watson has posed what Flórez and Vargas (2020) highlighted as a risk, which is the transposition of the "blank" algorithm, developed elsewhere and applied to wholly unrelated contexts. This leads to potential impact on the right to due process and a fair trial, data privacy and protection, freedom of expression, freedom of association, the right to effective recourse, and the prohibition of discrimination (Završnik, 2020), among others.

At the moment, the procurement and implementation of AI systems is an unregulated practice, despite the particularities involved in this kind of technology. Although in 2019 the National Council of Economic and Social Policy issued the national policy document for digital transformation and Artificial Intelligence (CONPES, 2019), it does not establish clear parameters beyond stating that adopting technological tools for improving public-sector efficiency is a priority.

2   Contract No. 0326 of 2017.

This document shows the potential impact on rights from the use of tools like Fiscal Watson and highlights the specific needs of this kind of system in criminal law. For example, according to Kusak (2022), the quality of data feeding AI systems is important because big data tools can lead to risks to the rights of people involved in legal proceedings.

The present study is structured as a technical analysis describing the system and its features; an analysis of the impact on rights that addresses the quality of the data feeding the system and data protection; implications in terms of transparency; and a timeline of the contractual relationship between IBM and the FGN.

To conduct this study, we performed the following: tracing of the contractual processes through which Watson was acquired and renewed; a review of institutional press releases; a systematic review of legislation and literature; information requests presented to the FGN; and a series of semi-structured interviews.

REGULATORY CONTEXT

This section addresses the regulatory instruments found in different hierarchical structures that are applicable to the implementation of Fiscal Watson. First, in terms of personal data, in Colombia there is a clear regulatory framework that is theoretically grounded in the Constitutional right to habeas data, a statutory law and other administrative instruments that regulate and provide guidelines for the law's application.

In terms of Artificial Intelligence, the framework is much more scattered and characterized by the existence of non-binding instruments that set forth recommendations for the application of principles and other general aspects in the implementation of AI.

Regarding data protection

In Colombia, data protection guidelines are stipulated in statutory laws 1266 of 2008[3] and 1581 of 2012.[4] The first sets forth general provisions regarding habeas data and regulates the processing of information contained in personal databases, particularly

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3   Law 1266 of 2008. Setting forth general habeas data provisions and regulating the processing of information contained in personal databases. https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=34488#:~:text=por%20la%20cual%20se%20dictan,y%20se%20dictan%20otras%20disposiciones (reviewed in August 2024).

4   Law 1581 of 2012. Setting forth general provisions for personal data protection. https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=49981 (reviewed in August 2024).

for finance, credit, commerce and services. The second establishes general provisions on personal data processing in the country.

These regulatory instruments are applicable in general terms to all acts that involve processing of individuals' information. Further, because they are special laws that come higher in the legal hierarchy, all regulatory provisions of lower rank must conform to them.

In the FGN's internal regulations, Resolution 0152 of 2018 establishes the institution's data processing policy. This regulation provides general guidelines for information processed by the FGN and data holders' rights; it also establishes that the Internal Oversight Office is responsible for monitoring and enforcement of the policy's due application.

The FGN has confirmed that these are the two regulations that apply in terms of data protection referring to the use of Fiscal Watson, since it is a technological tool supporting the work of district attorneys (DAs).[5]

In addition, the Superintendency of Industry and Commerce (SIC), the authority responsible for personal data protection in Colombia, issued External Circular No. 002 of 2024[6] in which it published guidelines on personal data processing in Artificial Intelligence systems.

This act by the SIC targets personal data administrators, who pursuant to Laws 1266 of 2008 and 1581 of 2012 are as follows: Processing Managers (Statutory Law 1581 of 2012, Article 3(e)); Processing Administrators (Statutory Law 1581 of 2012, Article 3(d); information sources (Statutory Law 1266 of 2008, Article 3(b)); Information Operators (Statutory Law 1266 of 2008, Article 3(c)); and Users (Statutory Law 1266 of 2008, Article 3(d)).

The Circular establishes that personal data processing in AI requires the prior conduct of suitability, necessity, reasonableness and proportionality analyses, observing the legal provisions of habeas data and data protection. In cases where there is no risk assessment or certainty regarding the ability to prevent harm, the SIC believes that administrators must refrain from using AI systems.

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5 Fiscalía General de la Nación Response to Right of petition, 2024.

6 Superintendencia de Industria y Comercio. 2024. "Circular externa N° 002 del 21 de agosto de 2024: Lineamientos sobre el tratamiento de datos personales en sistemas." https://sedeelectronica.sic.gov.co/transparencia/normativa/circular-externa-no-002-de-2024-del-21-de-agosto-de-2024-lineamientos-sobre-el-tratamiento-de-datos-personales-en-sistemas-de (reviewed in August 2024).

In addition, the Circular defines the need to conduct a privacy impact assessment and also refers to the quality of data feeding the systems. In other provisions, the Circular develops the precept that not all data accessible to the public are public by nature and, therefore, they cannot all be processed (e.g., information on the internet).

Regarding Artificial Intelligence

The only public policy document currently in effect is CONPES 3975 of 2019, referring the use of AI-based systems by government entities. This document mentions, only as a guideline, the adoption of systems that improve public sector efficiency, and although the same on-line government strategy referred to in the justification of Contract No. 0326 of 2017 is mentioned, it is limited to citing the need to incorporate technology, failing to develop any parameters for the adoption of technological tools by public agencies.

Colombia is among those countries who have adopted the Organisation for Economic Co-operation and Development (OECD) principles on Artificial Intelligence and have defined that AI systems must be safe, robust, transparent and governed by accountability, etc. These principles serve as a guide for public policymaking and development of specific regulations that apply internally in each State, but they do not replace such regulations.

In line with the above, a public policy needs to be created in domestic law adopting ethical principles and establishing specific roadmaps for risk assessment, data protection and the adoption of systems with a human rights approach. The FGN has stated that the institution, in accordance with mission-driven needs, is developing standards and structures regarding the use of emerging technologies.[7]

In 2021, the Ethical Framework for Artificial Intelligence in Colombia was published, adopting ethical principles for the implementation of AI: transparency and explanation, privacy, human control over the AI system's decisions (human-in-the-loop and human-over-the-loop), security, responsibility, non-discrimination, inclusion, the priority of children's and adolescents' rights, and benefits to society (Guío, Gómez & Tamayo, 2021).

Further, the document proposes tools for application of the principles, through the following activities: evaluation of algorithms, data cleansing, intelligent explanation, assessment of legitimacy, risk definition and management, internal codes of conduct and/or ethics, analysis of impact on privacy and governance models to ensure the ethics of Artificial Intelligence (2021).

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7   Fiscalía General de la Nación Response to Right of petition, 2024.

In 2022, the President issued Decree 1263 of 2022,[8] which defined the standards and guidelines of the public digital transformation policy. This decree establishes the obligation to assess the relevance of AI use for operational efficiency and improvement in government service provision. For this, it specifically defines that public administration agencies must:

> [...] draft and develop Artificial Intelligence projects that meet institutional needs, considering ethical recommendations and principles on the subject issued by competent authorities; conduct a risk analysis during the implementation and management of artificial intelligence projects; document the processes and decisions adopted during the Artificial Intelligence system lifecycle; propose training programs for the development of the skills necessary for the design and implementation of Artificial Intelligence systems in each agency; promote the use of open-source government data sites during the implementation and management of Artificial Intelligence projects; report on progress in Artificial Intelligence initiatives and projects, within the framework of accountability reports.

This regulation amended the sole regulatory decree in force for the ICT sector and defines the sector's guidelines, but it is also binding on Colombian government agencies.

Finally, in August 2024, the Constitutional Court handed down Sentence T-323 of 2024,[9] in which it studied the use of AI systems in the judicial system. The Court concluded that:

> AI cannot replace judges in judicial decision-making, regardless of the complexity of the issue submitted for the jurisdiction's review. By contrast, it considered that it is admissible to use these technologies for the following purposes: administrative and document management; support for judicial tasks in activities that do not involve the work of creating content, interpreting facts or texts, or deciding cases; and text editing and summarizing, as long as these are supervised by the judicial operator to determine their accuracy, consistency and correct application.

Institutional context

The Office of the Attorney General is the agency within the judicial branch responsible for investigating crimes and charging suspects before the competent courts and

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8 Public Service. Decree 1263 of 2022. https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=190206 (consulted in August 2024).

9 Colombian Constitutional Court. Sentence T-323 de 2024. https://www.corteconstitucional.gov.co/relatoria/2024/T-323-24.htm (reviewed in August 2024).

tribunals; it also has administrative and budgetary autonomy. The investigatory agency has three information systems: the Judicial Information System of the Office of the Attorney General (Sistema de Información Judicial de la Fiscalía, SIJUF; Law 600); the Justice and Peace Information System (Sistema de Información de Justicia y Paz, SIJYP; Law 975); and the Oral Accusatory Criminal System (Sistema Penal Oral Acusatorio, SPOA; Laws 906 and 1098) (Mingorance & Bautista, 2023).

For more than a decade there has been talk of a crisis in Colombia's justice system. According to the Universidad de las Américas Puebla and Fundación Pares (2019), analyzing the Global Impunity Index (IGI), Colombia is ranked in fifth place in Latin America in the Index, only behind Venezuela, Mexico, Peru and Brazil, and eighth internationally among the 59 countries that were successfully measured. According to the 2017 IGI, of all crimes in the country, 71% were in the initial investigation stage. Of these, only 27% were active, while for the investigation stage, the figure for active proceedings was just an alarming 1%. The concern over these numbers had been previously manifest.

In 2016, the acceptance speech by former Attorney General Nestor Humberto Martinez, during whose administration Watson was acquired, stated that impunity in Colombia was around 99%, the same rate that the National Planning Department complained of in 1991, when the FGN was created. In the same speech, the former Attorney General supported the proposal to implement technologies to bring about effective criminal policy.

In this context, in 2017 the FGN set up its action plan, the institutional architecture project, which contemplated adapting and implementing the agency's information systems, data structure, processes and technological platform to the new institutional architecture. This plan also adopted the provisions of Decree 1151 of 2008,[10] which established the "On-line Government" strategy guidelines; this strategy sought the development of a more efficient, transparent and participatory government.

In the development framework, the agency described the following weaknesses as requiring a more urgent solution:

> [...] incomplete complaint log, erroneous crime typification, duplication of processes in victim services, duplication of investigation and trial processes (change of DA,

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10 Public service. Decree 1151 of 2008. https://www.funcionpublica.gov.co/eva/gestornormativo/norma. php?i=29774#:~:text=Este%20Decreto%20tiene%20como%20objetivo,la%20informaci%C3%B3n%20 y%20la%20comunicaci%C3%B3n (consulted in August 2024).

duplication of orders to Judicial Police in the SPOA and SIG), handling of physical case files and their piling up, information systems that fail to facilitate the operation and capture of the complaint is lengthy, there are no dynamic forms.[11]

Along these lines, the FGN held that the institutional architecture needed technological infrastructure that would make it possible to create a sole system of criminal information (SUIP) whose implementation had already begun for that year, and which was in the second phase of the project. In the context of the first stage of that second phase, Watson Explorer was acquired along with other tools developed by IBM.

Contract No. 0326 of 2017, under which Watson was acquired, states that the expert analytics solution would serve institutional architecture objectives for supporting the mission-driven processes of identifying modus operandi, suggesting probability of success, suggesting actions and hypotheses, suggesting type of crime, supporting the assignment of cases and supporting the investigation.

Fiscal Watson is not the only AI-based system that the FGN has attempted to implement. In May 2019, the agency conducted a pilot of the PRISMA tool (recidivism risk profile for arraignment requests) that boasted the participation of 10 DAs in 5 cities around the country.[12] We requested information on whether during the PRISMA pilot program it cross-referenced information with Watson; the agency's reply was negative.

Case description

In 2018, the FGN announced the implementation of an AI tool to conduct big data analysis, known as "Fiscal Watson". This system was developed by the US-based IBM. The tool announced by the agency was referred to as Watson Explorer, which was first acquired in 2017.

Later, in 2020, it purchased Watson Discovery, another component of Watson that together with Explorer still operates in the agency's technological infrastructure under the name Fiscal Watson.

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11 Contract No. 0326 of 2017.

12 Fiscalía General de la Nación Response to Right of petition, 2024.

Fiscalía Colombia ✔
@FiscaliaCol

Fiscal #Watson, herramienta de inteligencia artificial utilizada por #Fiscalía, permite rescatar,reabrir o impulsar investigaciones mediante la exploración en tiempo real de la información no estructurada de la base de datos del sistema #SPOA (13 millones de denuncias desde 2005)
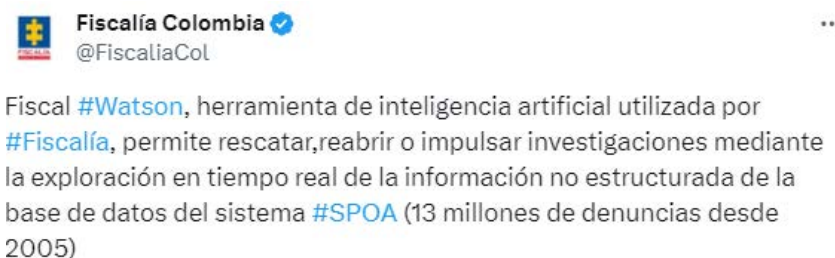
Image 1: Screenshot of the FGN's official account on the X social network.

According to the description provided by the agency:

> Watson Explorer is a cognitive search and content analysis platform that provides access to information from all data of interest to boost performance and growth in information analysis. It searches and analyzes structured, unstructured, internal, external and public content to discover trends and patterns that improve decision making.[13]

The tool performs advanced natural language processing (NLP) and machine learning (ML). According to IBM (2021), Watson enables:

• **Cognitive exploration:** Helps users find relevant information within the organization, regardless of format or location. Facilitates the search for known information.

• **Cognitive insights:** Extracts information from unstructured data using advanced analyses, making it possible to discover previously unknown information.

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13 Contract No. 0326 of 2017.

- **Cognitive recommendation:** The system suggests steps to follow in the discovery process, based on prior analysis.

Watson Explorer provides a platform for navigating and analyzing a wide range of corporate content and big data to maximize information return and take advantage of it. The FGN considers that this allows it to obtain the full value of data using improved operations, real-time decisions and better understanding of unstructured documents.

The Watson Discovery component, a complex business document processing engine, was procured under Contract No. 0231 of 2020, which also extended Watson Explorer licensing. IBM presented successful Discovery use cases, including its use for judicial investigation; in this case, it describes how the tool uses natural language processing to assist lawyers and control specialists in automating searches of large volumes of documents and public data (IBM, n.d.). The system known as Fiscal Watson is used by Technical Investigation Team investigators and deputy DAs from the FGN's different offices and delegations.

In 2017, the agency set up an institutional architecture plan in which it justified the acquisition of Watson, whose strategic objective was to have a new information system (Sistema Único de Información Penal, SUIP). For this, it proposed a technological infrastructure that included the expert analytics solution.[14]
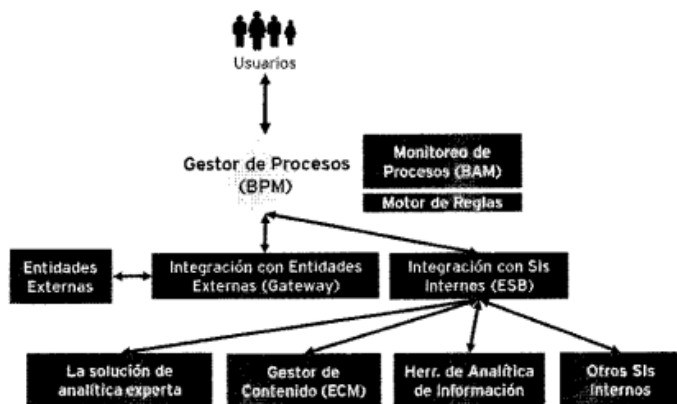

Image 2: Screenshot taken from preliminary studies for Contract No. 0326 of 2017.

According to the Technical Investigation Team, Fiscal Watson is a search platform that makes it possible to search for complaints with similar characteristics. This is

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14 Contract No. 0326 of 2017.

done using key words in the statement of facts for crime reports logged in the Oral Accusatory Criminal System (SPOA). In addition, due to the fact that the SPOA includes data such as district attorney's office, date of incident and location of incident, it can match cases based on quantitative, qualitative and geographical components.[15]

The system is used, in theory, at the investigation stage to search for and correlate investigations that meet established criteria, which may be geographical or qualitative variables that are found in the statement of facts logged in the SPOA.[16] The investigation phase is the first step in the criminal process, and it involves obtaining proof and physical evidence that establish the existence of an incident which, due to its characteristics, is a crime. In this part of the process the possible perpetrators must also be identified (Colombia Legal Corporation, 2021).

In the words of the institution, the tool indexes large sets of structured, unstructured and semi-structured data from disparate data sources, and it applies text analysis mechanisms to find relationships, generate warnings and automatically extract indices, and in general extract contextual information.[17] For this study, we requested information from the FGN on the information systems currently being run by the agency. The response to this request was denied on the grounds that the information is confidential and under legal reserve; the sources with which we listed the FGN information systems are private, and the legal reserve was not duly justified.

The FGN explained that Watson analyzes SPOA data.[18] The SPOA operates on a platform that can be remotely or locally accessed and which has seven modules, of which five are for inputting information and the other two for administering the account and accessing the system, and to request on-line help for using the platform (Dejusticia, n.d.).

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15 Fiscalía General de la Nación Response to Right of petition, 2024.

16 Ibid. Note 14.

17 Contract No. 0326 of 2017.

18 Fiscalía General de la Nación Response to Right of petition, 2024.

The five information input modules are as follows:

Table 1: SPOA information input modules (based on Fiscalía General de la Nación, 2011)

Judicial Police Management	1. Initial report. 2. Executive report. 3. Field investigator report. 4. Laboratory investigator report. 5. Cancel report. 6. Crime report. 7. Manual record of crime report. 8. Cancel crime report. 9. Recover crime report. 10. Chain of custody. 11. Cancel chain of custody. 12. Interview record.
Action management	Enables adding, eliminating, modifying, canceling actions by the District Attorney, the Judge or the Judicial Police. It also enables qualifying or adding observations on the actions.
Assignment	Distribution of cases to officials (DAs and judicial police).
Storage	Enables managing material proof by describing the chain of custody, the record of conditions in which the evidence arrives at storage and the record of where evidence is located in the storage unit.
Queries	Offers the option to query logged cases using different criteria, such as the search for officials: cases appear as assigned to the official making the query, by person involved: indexed or intervening, by case or police file number, or by prosecutor overseeing the case distribution.

According to the former FGN official interviewed during this study:

> [...] at the agency almost all SPOA information is structured. The most difficult field to manage is the statement of facts; Watson mainly serves to retrieve information from this field. Watson is used either in the context of a criminal proceeding or in context analysis. When one defines the two cases, this makes sense, but there is a gray area that could be a risk.[19]

The quality of data used to feed the AI systems in the criminal system is supremely relevant because this variable can lead to inaccurate, discriminatory or incorrect results, an outcome that engineers refer to colloquially as garbage in, garbage out (Kusak, 2022).

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19 Interviewee, personal communication, August 6, 2024.

For example, according to the interviewee, Watson is usually fed by the statement of facts; the job of the official who transcribes the statement plays an essential role in important information logged regarding the crime report and the details of the alleged crime.

As Kusak (2022) also states regarding crime:

> The low quality of data can give rise to erroneous and biased decisions that produce adverse legal or factual consequences for individuals, such as arrest, being the object of infiltration or subject to investigation or other intrusive measures. This, in turn, can have negative consequences not just for citizens […] but also for security forces, since basing actions on low-quality applications can lead to error and deceit, opening the door to wrongful decisions. This, in turn, can lead to a counterproductive fight against crime and undermine the legitimacy of security forces, as well as their trust in this technology.

The information stored in the SPOA is input by FGN personnel, and they are responsible for both the quality and legality of the data entered, on which the guarantee of due process for the people under investigation relies. Furthermore, these personnel have the obligation to strictly comply with the internal data processing policy and with the habeas data law governing data protection in Colombia.

In regulatory terms, quality is defined in the principle of veracity or quality found in FGN Resolution 0152 of 2018 which indicates that information subject to processing must be truthful, complete, accurate, up-to-date, verifiable and understandable. Likewise, the resolution defines that the processing of data collected and managed by the agency is governed by the principle of freedom, due to which only data authorized by data holders, or data that does not require consent due to legal provision or judicial authorization in the context of a criminal investigation, may be processed; the principle of necessity, by which only those data required for complying with FGN's role are subject to processing; the principle of integrity, which prohibits the handling of data that are partial, incomplete, fragmented or that lead to error; the principal of purpose, which only allows processing for purposes related to the agency's role; and the principle of restricted access and circulation, according to which information processing is subject to personal data protection regulations.

Regarding the principle of freedom, Law 1581 of 2012 establishes as an exception to the prohibition against sensitive data processing, processing that refers to data necessary for the recognition, exercise or defense of a right in a judicial proceeding. On this issue, the Constitutional Court said that while the sensitive data of people involved

in a judicial proceeding may be indispensable for resolving the conflict, there are cases, such as complaints of discrimination or persecution, in which:

> […] in virtue of the principles of freedom, purpose, legality and confidentiality, (i) the data holder must give express consent, (ii) a warrant is required — where relevant, (iii) the data may not be used for purposes different from those of the judicial proceeding itself, and (iv) judicial authorities and the parties involved in the proceeding must guarantee the reserve and confidentiality of the sensitive data, among other requirements (Corte Constitucional, 2011).

The quality of the data feeding the AI is also closely related to data protection. The technological tools implemented by public agencies — in this case Watson — do not have the ability to assess and rate whether the data available in the information system have been processed legally and in a way that guarantees protection; this means that, if there are errors or threats originating in the collection, logging and processing of the data, the use of big data analysis systems and of their results in the context of criminal investigations creates a risk of violating the rights of the people involved.

In addition, not only the role of the officials inputting information in the system is important, but also that of those who use Watson. Investigators' due diligence cannot rely solely on filtering searches in the technological tool; this should only be a tool supporting mission-driven tasks, and its results must not be definitive. This means that if the tool does establish that there is a link between cases, this information must be verified by the official; and on the other hand, if no links are found, other means of investigation must be used to ensure that it is not a case of repeat criminal acts.

In turn, the above is also related to the protection afforded to information and systems through digital security policies. In the case of the FGN in Colombia, the agency is governed by Resolution 40004 of 2013 updating internal information security policies.

In this particular case, the Information and Communication Technologies Division has clarified that, due to information security and integrity, Watson accesses a mirror copy of the SPOA, rather than the original database, to perform its queries.[20] While this measure appears to be effective for protecting the integrity of the system and the information it contains,[21] it raises questions regarding confidentiality: Where is the

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20 Fiscalía General de la Nación Response to Right of petition, 2024.

21 Since the Fiscal Watson system would have no direct access to SPOA data, instead accessing a mirror copy, and therefore could not modify the original SPOA database, even accidentally.

server containing the mirror copy of the SPOA housed? Is it in the FGN's technological infrastructure, the IBM cloud, or at another agency's data center?

The question is even more pertinent given that in the study conducted prior to the contractual process between the FGN and IBM in 2019, the agency explicitly signaled an intention to migrate the servers to the IBM cloud:

> [...] migrate the applications and services such as SPOA to a private IBM cloud taking advantage of the IBM application server's capacity (WebSphere Application Server, WAS) contained on the private cloud (IBM Cloud Private, ICP), enabling the Office of the Attorney General to modernize its applications in the future in an elastic framework on its own private cloud.[22]

In fact, this could lead to risks in terms of data protection and would require technical and legal guarantees protecting the confidentiality of the mirror copy of the SPOA that houses sensitive data of a private nature. The possibility that third parties such as IBM could be managing the cloud, with the potential ability to access or possess information with such features, adds nuance to questions related to data sovereignty, when the possession and administration of information related to the judicial branch is involved, which feeds AI-based systems adopted to improve government work.

In this regard, we submitted a request to the FGN asking for information on the agency's information systems and databases. Specifically, we asked if investigators directly access the databases or if they create mirror copies, and who has possession and administration of the servers where the databases and their corresponding mirror copies are housed. The reply was ambiguous and did not fully answer the request, which means that there is still no reliable information on the digital security and information protocol regarding mission-driven databases and specifically the SPOA. Information obtained from the agency states that investigators do not directly access the databases, and all the information logged there has a security backup; the party responsible is the Information and Communications Technologies Division.[23]

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22 Contract No. 0184 of 2019.

23 Fiscalía General de la Nación Response to Right of petition, 2024.

WATSON'S TRANSPARENCY PROBLEMS

Algorithmic transparency refers to the availability of information on the algorithmic system, including automated decision-making systems, which makes it possible to observe their operation and assess their performance (Gutiérrez & Castellanos, 2023). Moreover, in debates around AI, the principle of transparency is mentioned as the openness to provide meaningful and understandable information on the design, operation and impact of artificial intelligence systems (Guío, Gómez & Tamayo, 2021).

In the ethics of practices, transparency means providing meaningful, clear and understandable information on the roles of the teams and individuals involved in the design, development and implementation of these systems (Guío, Gómez & Tamayo, 2021). For the application of these principles, the Ethical Framework for Artificial Intelligence in Colombia (2021) establishes a series of activities that must be conducted to ensure that the systems comply with the principles, are legitimate and mitigate the ethical risks of their use. Due to the above, public information must be available on the manner in which the system operates, what it is used for within the agency and also whether there are processes for evaluating implementation, together with indicators to measure its use and ensure that the systems are suitable, necessary and proportional with respect to proposed objectives.

While the contractual processes through which Watson Explorer and Watson Discovery were procured are public, the information gleaned from them is insufficient and raises doubts about the use of Fiscal Watson in the FGN's activities.

DISCREPANCIES BETWEEN THE CONTRACTUAL INFORMATION AND THE RESPONSE TO THE REQUEST FOR INFORMATION

As mentioned above regarding the information analyzed by Watson to correlate cases, the FGN has stated that the system accesses the records of the oral accusatory criminal system (SPOA).[24] However, the agency itself, when describing the system in preliminary studies for the contract through which it was acquired for the first time, mentions that Watson Explorer searches and analyzes external and public content.[25]

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24 Fiscalía General de la Nación Response to Right of petition, 2024.

25 Contract No. 0326 of 2017.

To delve into Watson's other potential features, we interviewed another former FGN official who worked there during the early years of Watson's implementation. This person confirmed that the tool does not have the ability to conduct external searches, such as a search for data in open Internet sources, and that it is fed only by the agency's database. According to the former official, what Watson can do is analyze the reports investigators upload if they gather, for example, open-source intelligence.[26]

In the preliminary studies for Contract No. 0184 of 2019, signed between the FGN and IBM, reference is made to the agency being in the process of implementing institutional architecture (already mentioned in the 2017 procurement process), due to which it must have technological infrastructure that enables optimizing processes and improving access to services.
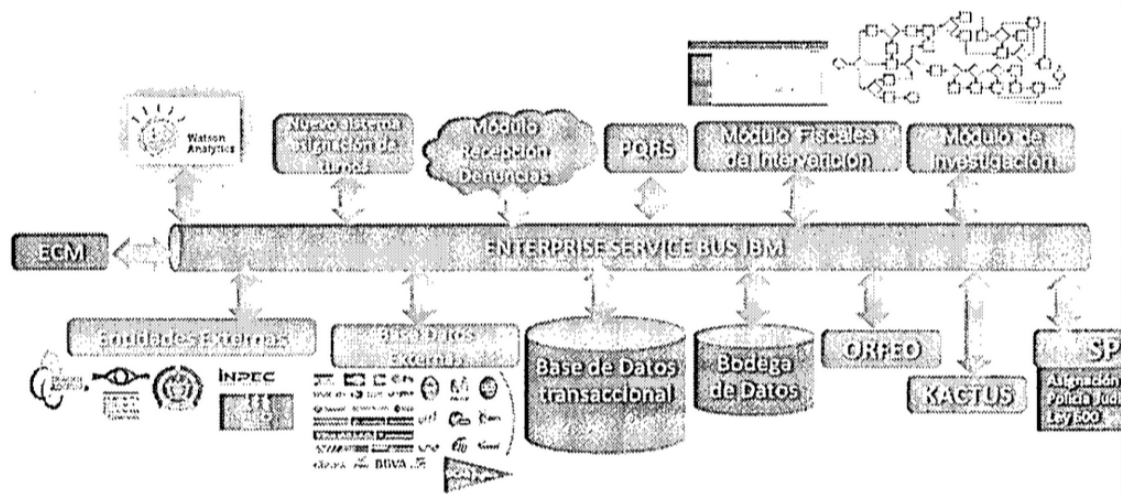

Image 3: Screenshot taken of the preliminary studies for Contract No. 0184 of 2019.

For implementation of the architecture, the FGN says in the same document that there are technological enablers that include Watson. They later state that, among the advances in implementing the architecture, Watson Explorer has been implemented in the modules for receiving complaints, Early Intervention DA, Case Handling DA, and Judicial Police. In the graphic illustrating the architecture, it can be seen that in addition to the SPOA, there are other databases and information systems.

In 2020, the FGN signed a new contract with IBM. In the preliminary studies for this process, the agency defined the progress that has been achieved with the

26 Interviewee, personal communication, July 18, 2024.

implementation of Watson Explorer, and some of the advances raise doubts regarding whether the tool only accesses SPOA.

However, the FGN states that Watson has been implemented to enable querying and analysis of Transitional Justice cases.[27] The SPOA belongs to the oral accusatory criminal system, and the data stored there are only related to proceedings administered under Laws 906 and 1098. Talking about implementation for querying and analyzing Transitional Justice cases means that Watson has access to the database of the information systems corresponding to transitional justice proceedings.

INDICATORS OF SUCCESS FOR THE AI-BASED SYSTEM

From November 2018 to March 2023, the FGN press office published 21 releases that mention the use of Fiscal Watson. Some of these press releases refer to the same case and all refer to events in the departments of Antioquía, Tolima, Valle del Cauca, Santander, Nariño, Boyacá and the Bogotá capital district. Several of these releases mention "*casos exitosos* [successful cases]" and "*logros* [achievements]." In 2018, the official FGN account posted a video explaining Watson's operation, in which the FGN's Director of Planning and Development, Luis Enrique Aguirre, states that at that time *"tenemos más de 2000 noticias asociadas, de las cuáles se han reflejado en 500 casos de éxito* [we have more than 2,000 linked reports, which have been reflected in 500 successful cases]" (@FiscalíaCol, 2018). In addition, the FGN joint report (2020) states that "*con el apoyo de big data (Herramienta Watson), cada denuncia es correlacionada con una base de datos que contiene 16 millones de procesos. De allí que en 2019 se asociaran más de 25.000 NUNC y se produjeran más de 500 casos de éxito* [with help from big data (Watson Tool), each complaint is correlated to a database containing 16 million proceedings. Thus in 2019, more than 25,000 NUNC were matched, and more than 500 successful cases were produced]."

Based on the above, in the request for information sent to the FGN, we asked how many successful cases had been recorded to date and what the criteria and indicators for the system's measurement are. In response, the agency replied that currently no measurement is done of either levels of Watson Explorer system use, or the percentage of success in information analysis.[28]

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27 Contract No. 0231 of 2020.

28 Fiscalía General de la Nación Response to Right of petition, 2024.

In nine years, the FGN has signed eight contracts with IBM DE COLOMBIA & CIA S.C.A., together totaling 29,290,897,450 Colombian pesos. Four of these contracts acquire or renew Watson Explorer and/or Watson Discovery licenses.

· **Contract No. 0326 of 2017:** Watson Explorer acquisition

· **Contract No. 0184 of 2019:** Watson Explorer licensing extension

· **Contract No. 0231 of 2020:** Explorer licensing extension and Watson Discovery acquisition

· **Contract No. 0023 of 2022:** Watson Discovery renewal

Table 2: Timeline of procurement of an expert analytics system for the FGN

Contract No.	Subject	Procuring Entity	Value
0231 of 2015	Acquisition and updating of licenses with technical support for IBM products for the Office of the Attorney General.	IBM DE COLOMBIA & CIA S.C.A.	$1,335,471,220
0326 of 2017	Acquisition and implementation of specialized technological tools for automation of Office of the Attorney General processes, through a BPM (business process management) technological platform in accordance with institutional architecture.	IBM DE COLOMBIA & CIA S.C.A.	$9,686,110,938
0184 of 2019	Updating, extension and renewal of licensing of IBM technological tools with specialized technical support for the implementation and strengthening of the Office of the Attorney General's institutional architecture.	IBM DE COLOMBIA & CIA S.C.A.	$4,533,501,284
0231 of 2020	Updating, extension and specialized technical support for the Watson tool and extension of Cloud Park for Application licensing, with IBM technical support for the Office of the Attorney General.	IBM DE COLOMBIA & CIA S.C.A.	$2,397,316,864
0027 of 2021	Updating, extension and renewal of licensing of IBM technological tools with specialized technical support for strengthening the Office of the Attorney General's technological infrastructure.	IBM DE COLOMBIA & CIA S.C.A.	$3,188,175,359

0023 of 2022	Renewal of licensing of IBM technological tools with specialized technical support for strengthening the Office of the Attorney General's technological infrastructure.	IBM DE COLOMBIA & CIA S.C.A.	$3,052,748,751
0020 of 2023	Renewal of licensing of IBM technological tools with specialized technical support for strengthening the Office of the Attorney General's technological infrastructure.	IBM DE COLOMBIA & CIA S.C.A.	$3,139,999,989
0012 of 2024	Renewal of licensing of IBM technological tools with specialized technical support for strengthening the Office of the Attorney General's technological infrastructure.	IBM DE COLOMBIA & CIA S.C.A.	$3,293,044,265

All of these procurements have been done under direct contract, justified by saying that IBM is the only company in Colombia that can offer or provide the good or service required. It is worth mentioning that although the contracts included in Table 2 are the contractual history related to Watson's acquisition, Contract No. 0231 of 2015 states that IBM is the applications, service bus, process manager, business intelligence and information analysis platform that the FGN has been using for mission-driven information systems since 2005.[29]

The public-private relationship has already been addressed in the literature, revealing the complexities that arise when an international corporation becomes so involved in a public service (López & Castañeda, 2024). The contracts mentioned in Table 2 cover the procurement of databases, cloud services, document content management systems, business intelligence systems, expert analytics systems and file digitalization systems.[30]

The percentage of FGN technological infrastructure that has been developed by IBM is significant, and there is not enough public information available to understand what power this gives the company over FGN systems. Furthermore, it is important to keep in mind that the license acquisitions and renewals tend to be accompanied by the hiring of technical support services, which makes it possible to infer that there is a dependency of the agency for the use of platforms and systems.

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29 Contract No. 0231 of 2015.

30 Contract No. 0012 of 2024.

On the other hand, it is important to ask what the implications are of judicial branch agencies acquiring and implementing tools designed for the private sector. Although features can be adapted, the public sector and the private sector operate under different daily and legal rationales. Under the principle of legality, the differentiated standard of action is that civil servants can only do what the law enables and permits them, while private actors can do anything that the law does not prohibit.

The adoption of new technologies should also be understood based on this precept. In an interview held for this study with a representative of the private sector, we asked how the process of selling the tools comes up and if there are adaptations when these are offered to public agencies. According to the interviewee, companies have a high degree of confidence in their systems, and the client's procurement process operates such that the company is responsible for platform development and the client is responsible for platform use and corresponding liability. The interviewee also clarified that the system sold to a company is the same as that sold to a public agency.[31]

As mentioned above, IBM Watson is an AI platform created to boost business activities (IBM, 2021). However, the FGN's responsibilities do not include business activities; on the contrary, the public services that this agency engages in are of vital importance to the judicial branch of government, and it has sensitive implications for the operation of society, the administration of justice and the State's duty to guarantee the rights affected when criminal law intervenes.

CONCLUSIONS

The implementation of AI systems by public agencies in the judicial branch demands analyses of risks to and impact on rights that assess the sector's specificities. These analyses must focus not only on the system's use, but also on the information systems feeding the AI.

Regulatory advances in this area are scarce, and legal rulings in Colombia have addressed the use of AI by judges, despite the fact that the FGN—which is the institution for investigation and indictment—has been using these tools for several years now. This means that, even in the areas of new regulations, there has already been implementation in the context of regulatory gray areas, and while these analyses

31 Interviewee, personal communication, May 22, 2024.

ought to be conducted beforehand, the agencies have the obligation to extend them to systems that already exist within institutional infrastructures.

Following the recommendations offered by Gutierrez (2020), the adoption of these tools demands a monitoring mechanism and periodic evaluation of their operations and outputs. In this particular case, a good start is the risk analysis, together with a definition and application of transparency standards that make it possible for citizens and individuals involved in judicial investigations to understand the stages of the process in which the tool is used, its specific role and the impact of its use on the process. This would make it possible to perform monitoring and oversight of the obligation to guarantee rights that corresponds to the FGN and other judicial branch agencies.

According to the work of Kusak (2022) and as shown in this document, the AI used by criminal investigation and indictment bodies is closely linked to the legality and quality of information stored in mission-driven information systems and to the data protection guaranteed to them. Margins of error can lead to flaws in the technology's results, creating serious risks for the rights of people linked to judicial proceedings.

Transparency is a fundamental pillar for AI system use to be respectful of and guarantee human rights, which is the sole starting point for accepting legitimate uses that can strengthen and improve efficiency in government service provision, such as in the administration of justice.

Finally, the debate over technological advances in AI must include discussions of State sovereignty and the implications of adopting private technological infrastructure in government architecture; what the boundaries should be and how the principle of responsibility governs that relationship; and the effects that the use of AI tools may have.

BIBLIOGRAPHY

Aguerre, C., y Bustos, G. "Justicia e inteligencia artificial: bases conceptuales de la investigación". Prólogo: IA, justicia y políticas de transformación digital en el ámbito público latinoamericano. Centro de Estudio en Tecnología y Sociedad, 2021.

Castellanos Sánchez, M., y Gutiérrez, J.D. "Transparencia algorítmica y Estado Abierto en Colombia". Reflexión política 25, n.º 52 (2023): 6-21**.** https://doi.org/10.29375/01240781.4789

Colombia Legal Corporation. Fases del proceso penal en Colombia. 2021. Colombia Legal Corporation. Asesores legales especialistas. https://www.colombialegalcorp.com/blog/etapas-del-proceso-penal-en-colombia/ (revisado el 4 de julio de 2024).

Consejo Nacional de Política Económica y Social. "Política para la transformación digital e inteligencia artificial CONPES 3975". 2019. https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/3975.pdf (revisado en julio de 2024).

Corte Constitucional. Sentencia T-323 de 2024. M.P. Juan Carlos Córtes González. 2024. https://www.corteconstitucional.gov.co/relatoria/2024/T-323-24.htm

Corte Constitucional. Sentencia C-748 de 2011. M.P. Jorge Ignacio Pretelt Chaljub. 2011. https://corteconstitucional.gov.co/relatoria/2011/c-748-11.htm

Dejusticia. Anexo 3. Registros administrativos. (s.f.). https://www.dejusticia.org/wp-content/uploads/2017/04/fi_name_recurso_344.pdf (revisado el 10 de junio de 2024).

Fiscalía General de la Nación. Manual de Usuario SPOA (V12). https://www.fiscalia.gov.co/colombia//wp-content/uploads/policiajudicial/DOCPJFISCALIA/Manual%20de%20Usuario%20SPOA.pdf (revisado el 10 de junio de 2024).

— — Resolución 40004 de 2013. https://www.fiscalia.gov.co/colombia/wp-content/uploads/2013-RES-0-4004-POLITICAS-SEG-DE-LA-INFORMACION.pdf (revisado el 10 de junio de 2024).

— — Contrato n.º 0231 de 2015. Celebrado con IBM DE COLOMBIA & CIA S.C.A.

— — Estudios previos contrato n.º 0326 de 2017. Celebrado con IBM DE COLOMBIA & CIA S.C.A.

— — Resolución 0152 de 2018. https://www.fiscalia.gov.co/colombia/wp-content/uploads/Pol%C3%ADtica-de-Tratamiento-de-Datos-Personales.pdf (revisado el 10 de junio de 2024).

— — [@FiscaliaCol]. (2018). Red Social X [Perfil Fiscalía Colombia]. https://x.com/FiscaliaCol/status/1035557228013596673 (revisado el 8 de mayo de 2024).

— — [@FiscalíaCol]. (2018). Red Social X [Perfil Fiscalía Colombia]. https://x.com/fiscaliacol/status/1071456875437350913 (revisado el 7 de junio de 2024).

— — Estudios previos Contrato n.º 0184 de 2019. Celebrado con IBM DE COLOMBIA & CIA S.C.A.

— — Contrato n.º 0023 de 2022. Celebrado con IBM DE COLOMBIA & CIA S.C.A.

— — Contrato n.º 0020 de 2023. Celebrado con IBM DE COLOMBIA & CIA S.C.A.

— — Contrato n.º 0012 de 2024. Celebrado con IBM DE COLOMBIA & CIA S.C.A.

— — Informe de empalme de la Fiscalía General de la Nación-2020. https://www.fiscalia.gov.co/colombia/wp-content/uploads/Informe-de-empalme-de-la-FGN-2020.pdf (revisado el 1 de julio de 2024).

Guío, A., Gómez, P. & Tamayo, E. "Marco Ético para la Inteligencia Artificial en Colombia". Consejería Presidencial para Asuntos Económicos y de Transformación Digital. https://minciencias.gov.co/sites/default/files/marco-etico-ia-colombia-2021.pdf (revisado el 27 de junio de 2024).

Gutiérrez Rodríguez, Juan David. "Retos éticos de la Inteligencia Artificial en el proceso judicial (Ethical Risks of Using Artificial Intelligence Systems for Judicial Decision-Making Processes)". En ICDP (ed.) Derecho Procesal. #Nuevas Tendencias. XLI Congreso Colombiano de Derecho Procesal (2020, 1a ed., pp. 499-516). Instituto Colombiano de Derecho Procesal (ICDP) y la Universidad Libre. https://ssrn.com/abstract=4011179 o http://dx.doi.org/10.2139/ssrn.4011179

IBM. Cómo empezar con Watson Explorar. 2021. https://www.ibm.com/docs/es/watson-explorer/12.0.x?topic=onewex-getting-started-watson-explorer (revisado el 4 de junio de 2024).

IBM. IBM Watson Discovery. s.f. https://www.ibm.com/es-es/products/watson-discovery#:~:text=IBM%C2%AE%20Watson%20Discovery%20utiliza,Generan%20conocimientos%20significativos (revisado el 5 de junio de 2024).

Kusak, M. "Quality of data sets that feed AI and big data applications for law enforcement". 2022. *ERA Forum*, 23, 209–219. https://doi.org/10.1007/s12027-022-00719-4

Ley 1266 de 2008. https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=34488

Ley 1581 de 2012. https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=49981

López-Solano, J., & Castañeda, J. D. "'A promising playground': IDEMIA and the digital ID infrastructuring in Colombia". 2024. *Information, Communication & Society*, 1–17. https://doi.org/10.1080/1369118X.2024.2302995

Mingorance, F. & Bautista, E. "Sistemas de información de la FGN (SPOA/SIJUF/SIJYP)". 2023. *DesapariciónForzada.com*. https://desaparicionforzada.com/sistema-penal-oral-acusatorio-spoa/ (revisado el 3 de junio de 2024)

Respuesta a Derecho de Petición formulado a la Fiscalía General de la Nación por Fundación Karisma bajo radicado 20246170214222. 2024.

Respuesta a Derecho de Petición formulado a la Fiscalía General de la Nación por Fundación Karisma bajo radicado 20246170472262. 2024.

Superintendencia de Industria y Comercio. "Circular externa N° 002 de 2024".

Završnik, A. "Criminal justice, artificial intelligence systems and human rights". 2020. *ERA Forum*. https://doi.org/10.1007/s12027-020-00602-0