Inteligencia
artificial
e inclusión
en América Latina

COLOMBIA

PretorIA
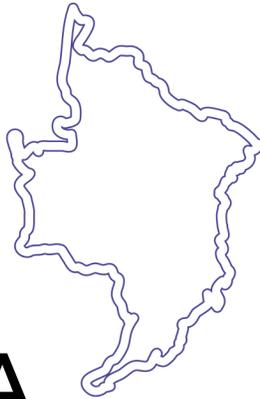
and automating the processing of human rights cases

by Victor Saavedra and Juan Carlos Upegui

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Executive Summary

PretorIA is an artificial intelligence project under development, promoted by the Colombian Constitutional Court, whose aim is to increase the efficiency of the process of selecting cases for judicial protection of fundamental rights (tutela), which are the basis for the Court's jurisprudence.

The system's objective is to classify or label tutela decisions, which must be sent by all tutela judges in the Colombian government to the Constitutional Court for "their eventual review," based on categories previously defined and codified by the Court's own personnel. As an example of the critical nature of this issue, the Constitutional Court received an average of around 12,000 tutela dockets weekly in 2019.

On the basis of this classification, the system makes it possible to present information on summary sheets showing the occurrence or nonoccurrence of categories in a text, thanks to a search engine that matches words and categories. It also enables the preparation of statistics and the identification of recurring issues. All this increases the efficiency of the process of identifying and preselecting cases and facilitates the production of aggregated information on general tendencies in the constitutional jurisdiction of fundamental rights in Colombia.

The PretorIA case is of particular interest due to the entity developing it and the context in which development is taking place. This project is developed by the Constitutional Court to better filter cases and optimize its performance as the ultimate interpreter of the Constitution. It is also interesting as part of the process of deploying digital technology in the legal sector, both in terms of its purely technical components and for its impact on the organization.

In addition, this investigation seeks to describe the process undertaken to develop the project, from its original idea at the end of 2018, based on the Prometea system of the University of Buenos Aires (Argentina), to the current situation as of late 2020, prior to its entry into production, with a pilot for tutela cases relating to the fundamental right to health.

A detailed description of the project's phases is helpful because it provides an illustration, based on a case study, of the difficulties inherent to this kind of initiative, especially the mismatches between techno-solutionist narratives and the specific problems that need to be resolved: between expectations and reality. It also facilitates description of the difficulties in structuring and developing these projects in the public sector, the problems and alternatives for financing and sustainability over time. Likewise, it allows illustration of the challenges in adequately communicating these kinds of initiatives and adapting the communication strategy to the setbacks, changes and tangible progress of such projects.

The goal of this investigation is to contribute to the knowledge of PretorIA and its potential. We also seek to support a grounded understanding of these kinds of deployment, highlighting the importance not only of the system, but also of the decision-making, development and disclosure processes.

This investigative report is a product of the Technology, Transparency and Human Rights division of the Center for Law, Justice and Society Studies—Dejusticia. Several sources were used in its preparation. Primary sources include press releases from the Constitutional Court and interviews published in the media; contract documents or similar; Constitutional Court memoranda of understanding; agreements with other actors intervening in development of the project; reports on activity of the Court; responses to requests for information; phone conversations with officials; and a semi-structured interview with the clerk of the Constitutional Court and the technical team responsible for development. Secondary sources include texts referring to either PretorIA or Prometea, consisting of press releases and opinion pieces.

Introduction

In early 2019, the Colombian Constitutional Court announced an event at the Universidad del Rosario to talk about justice in the era of algorithms. The core of the event was a presentation of Prometea, an Argentinean artificial intelligence system with which a proof of concept had been conducted at the Court in relation to the process of selecting cases for protection of fundamental rights. General interest was sparked for the initiative: the Constitutional Court is the highest court in the constitutional jurisdiction, and the tutela (writ of legal protection of fundamental rights) is the main instrument for protecting fundamental rights in Colombia. One of the Court's constitutional responsibilities is the "eventual review" of tutela decisions issued around the country, which must be sent to the Court, together with their respective dockets, by all judges in the republic. The Court organizes a process for selecting tutela decisions so that it may, via review decisions, fulfill its role of establishing case law on matters of fundamental rights.

In mid-2020 PretorIA was introduced to the public as a system being developed at the Court to improve the efficiency of the selection process, in a context of work overload due to the quantity of briefs presented demanding protection of fundamental rights: more than 620,000 tutela dockets were sent to the high court in 2019. Thanks to automated detection of categories previously defined by the Court, presented as statistics, summary sheets or direct searches, the human agents would have more prior information for performing their task of selecting tutela cases. In the words of the Court, this would lead to an improvement in terms of both time and knowledge.

PretorIA is one of several initiatives intended to increase the use of digital technologies in the Judicial Branch in Colombia, a trend that has necessarily increased due to the Covid-19 pandemic. But it is also part of the increasing deployment of artificial intelligence initiatives by the public sector around the world. Thus, this investigation, developed by the Center for Studies in Law, Justice and Society–Dejusticia, is framed under a regional effort, led by Derechos Digitales, to study different Latin American cases of deployment of AI-based systems, with the goal not only of identifying those cases, but also of contributing to a comparative analysis conducted in and on the Global South.

This report is divided into three broad sections. The first serves to provide context for framing the description and analysis of PretorIA in Colombia. To this end we will begin with general socio-demographic data that we will link, in the following section, to information on technology penetration, particularly regarding internet access in terms of connectivity and devices used. Finally, we will make a few brief remarks on institutional structure and legislation on artificial intelligence, as well as other relevant fields, such as data protection. Readers familiar with the Colombian context may skip this section.

The second part contains the heart of the report's description and is guided by the following questions: What was the specific process for deploying PretorIA? How has the system been developed up to now? What exactly is PretorIA? These questions will be addressed in this order, starting with a description of how tutela cases are selected, as presented by the Constitutional Court; the different phases comprising the process; the actors involved in these phases; and the specific problem motivating the system's development. The next section will enter into the development process itself as it now stands and will highlight the different stages it contains chronologically. Finally, we will review what it is, what it does and where specifically it can been projected that PretorIA will be deployed in the different stages of the tutela selection process. The goal of this section is to provide clear, relevant information on the system, teasing it out from possible conceptions or perceptions that differ from the reality of PretorIA as a system under development.

The report ends with a critical review of PretorIA and the process of developing the system in terms of impact on rights. In particular, we will emphasize the potential impact in terms of data protection and

transparency. This section ends with a brief analysis of the development process and how it was publicized and communicated to citizens. The section proposes to consider the scope of impact of this specific system, detailing the consequences, but also the lessons learned and opportunities, of the decision to undertake its development and deployment.

We hope this document will contribute to not only a better understanding of PretorIA in its context and of the system's possible future at the Constitutional Court, but also an understanding based on the facts of this kind of deployment, aiming at the importance of the systems, the decision-making processes and development, as well as their communication to the public.
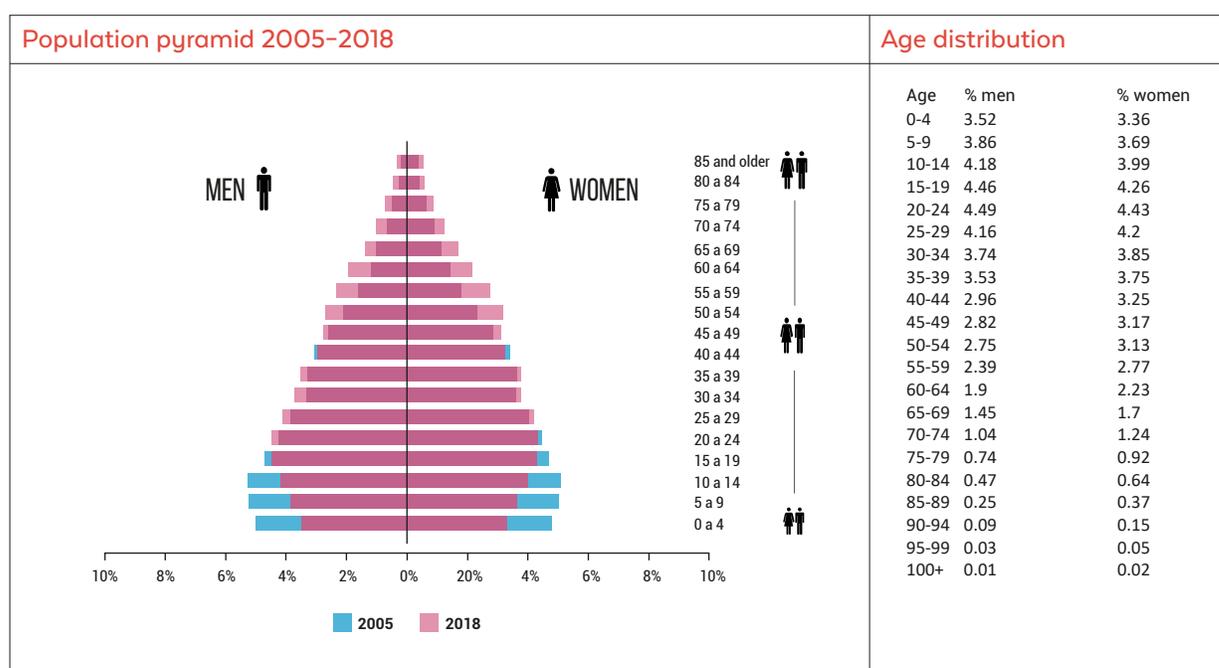
Background

Sociodemographic context

According to data from the most recent population census—2018 Population and Housing Census—conducted by the National Administrative Department of Statistics (Departamento Administrativo Nacional de Estadística, DANE),[1] Colombia's population is estimated at 48,258,494 people, based on a total of 44,164,417 surveyed, of which 51.16% are women and 68.2% are between the ages of 15 and 65 (DANE, 2019).

Table 1: Age information

Source: 2018 Census - DANE

Population pyramid 2005–2018	Age distribution		
	Age	% men	% women
	0-4	3.52	3.36
	5-9	3.86	3.69
	10-14	4.18	3.99
	15-19	4.46	4.26
	20-24	4.49	4.43
	25-29	4.16	4.2
	30-34	3.74	3.85
	35-39	3.53	3.75
	40-44	2.96	3.25
	45-49	2.82	3.17
	50-54	2.75	3.13
	55-59	2.39	2.77
	60-64	1.9	2.23
	65-69	1.45	1.7
	70-74	1.04	1.24
	75-79	0.74	0.92
	80-84	0.47	0.64
	85-89	0.25	0.37
	90-94	0.09	0.15
	95-99	0.03	0.05
	100+	0.01	0.02

In addition, Colombia is a multi-ethnic, multicultural state whose diversity includes indigenous populations, Afro-Colombian people and communities of Rrom or gypsy people. Specifically:

- 4,671,160 Afro-Colombian people,[2] representing 9.7% of the total population.
- 1,905,617 indigenous people, representing 3.9% of the total population.

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1   Agency responsible for producing official statistics for Colombia and operating under the Office of the President of the Republic.

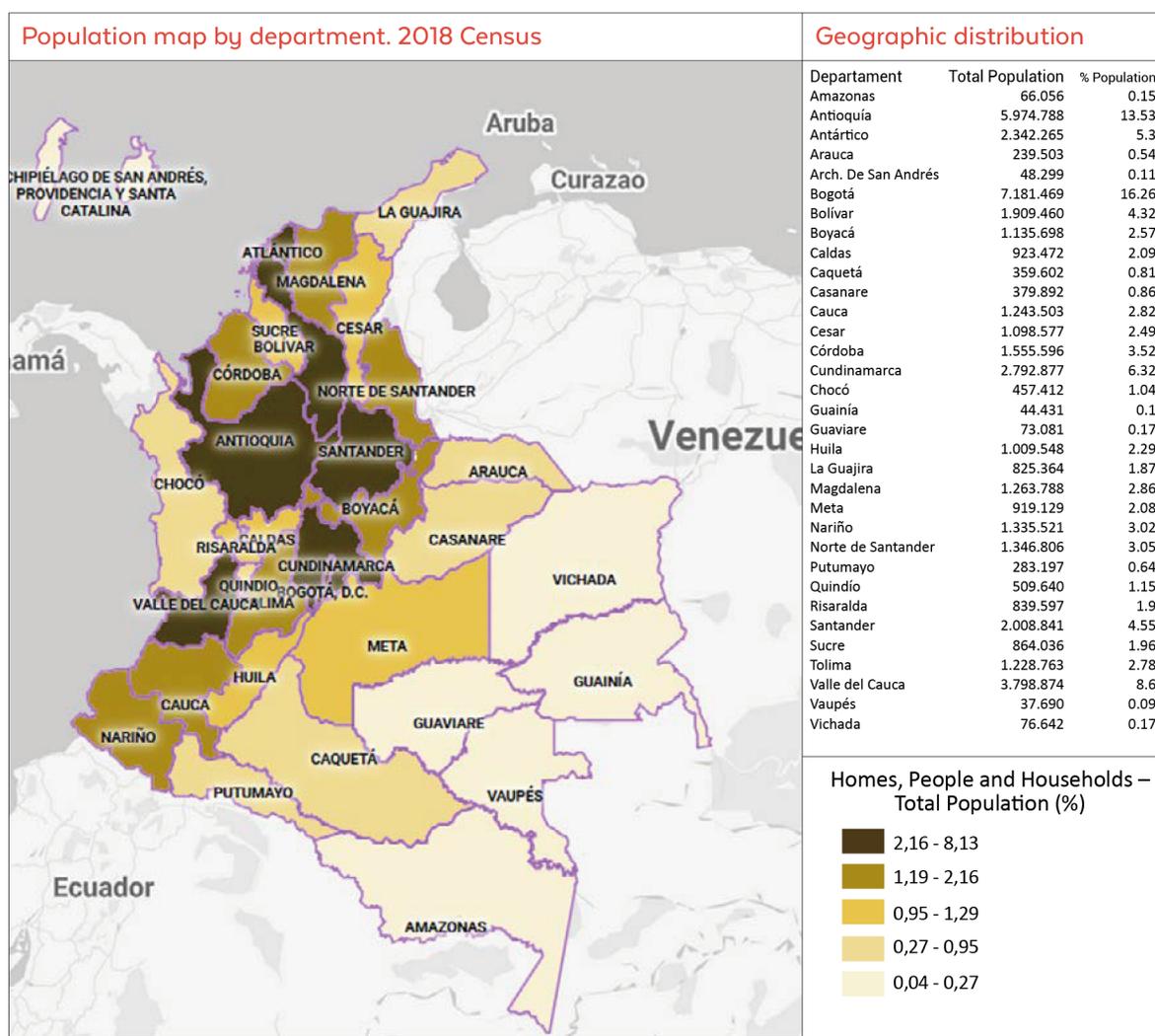2   This figure is an estimate by DANE, after finding that the data produced by the 2018 National Census of Population and Housing, in which 2,982,224 people self-identified as Afro-Colombian, did not follow population dynamics. More information at: https://www.dane.gov.co/files/investigaciones/boletines/grupos-etnicos/comunicado-grupos-etnicos-poblacion-NARP-2019-debate-ctrl-politico-camara-rep.pdf

- 2,649[3] Rrom people, representing 0.005% of the total population.

From a geographical perspective, Colombia is divided into 32 departments plus the Capital District, Bogota, as the intermediate units of political-administrative division, between the central government and municipalities. The population distribution by department is as follows:

Table 2: Geographic information.

Source: 2018 Census - DANE

Population map by department. 2018 Census	Geographic distribution		
	Departament	Total Population	% Population
	Amazonas	66.056	0.15
	Antioquía	5.974.788	13.53
	Antártico	2.342.265	5.3
	Arauca	239.503	0.54
	Arch. De San Andrés	48.299	0.11
	Bogotá	7.181.469	16.26
	Bolívar	1.909.460	4.32
	Boyacá	1.135.698	2.57
	Caldas	923.472	2.09
	Caquetá	359.602	0.81
	Casanare	379.892	0.86
	Cauca	1.243.503	2.82
	Cesar	1.098.577	2.49
	Córdoba	1.555.596	3.52
	Cundinamarca	2.792.877	6.32
	Chocó	457.412	1.04
	Guainía	44.431	0.1
	Guaviare	73.081	0.17
	Huila	1.009.548	2.29
	La Guajira	825.364	1.87
	Magdalena	1.263.788	2.86
	Meta	919.129	2.08
	Nariño	1.335.521	3.02
	Norte de Santander	1.346.806	3.05
	Putumayo	283.197	0.64
	Quindío	509.640	1.15
	Risaralda	839.597	1.9
	Santander	2.008.841	4.55
	Sucre	864.036	1.96
	Tolima	1.228.763	2.78
	Valle del Cauca	3.798.874	8.6
	Vaupés	37.690	0.09
	Vichada	76.642	0.17

Homes, People and Households – Total Population (%)

- 2,16 - 8,13
- 1,19 - 2,16
- 0,95 - 1,29
- 0,27 - 0,95
- 0,04 - 0,27

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3   This reflects a 45.5% decrease compared to the 2005 Census. However, DANE has two explanations for this variation: 1) self-identification based on some kind of identification with the term "gypsy" by people who are not recognized by Rrom organizations; 2) greater accuracy in the 2018 Census due to the participation of Rrom census workers. More information available at: https://www.dane.gov.co/files/investigaciones/boletines/grupos-etnicos/comunicado-grupos-etnicos-poblacion-gitana-rrom-2019.pdf

In terms of distribution by type of population center, 77.1% of the Colombian population is located in municipal capitals, while the rest is found in population centers different from the capitals (7.1%) and in dispersed rural areas (15.8%).[4] Furthermore, the population is distributed in 14,243,223 households,[5] with an average of 3.1 individuals per household.

Regarding the migrant population, there is no easily accessible official source; migration statistics focus on entries and exits from the country, but not necessarily on stay. The most recent data on the subject published by DANE show the presence of 965,015 migrants, of whom 62.5% are men.[6]

On the other hand, the most recent data from the *Expansión* newspaper (*Diario Expansión*, n.d.) indicates 1,142,319 migrants (578,805 of them men), with the following origins:

- Venezuela: 1,048,714
- USA: 20,140
- Ecuador: 15,212
- Spain: 7,086
- Peru: 5,391

We cannot ignore the complexity of measuring Venezuelan migration. In this sense, data mentioned by Population Triage (Government of Colombia, 2020), developed based on the 2018 Colombia Population Situation Analysis (Análisis de Situación Poblacional, ASP) talk of 1,488,373 migrants from Venezuela at a national level. For its part, data from the Coordination Platform for Refugees and Migrants from Venezuela indicated, as of May 31, 2020, the presence of 1,764,883 people from that country in Colombia.[7]

Notwithstanding the complexity of measuring migration and estimates of the number of migrants in Colombia, based on the information found in *Expansión* and using data from the Platform to update the relative number of Venezuelans, we can say migrants in the country represent 3.76% of the Colombian population documented in the 2018 Census of Population and Housing.

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4   DANE offers the following definitions: municipal capital: geographical demarcation defined by DANE for statistical purposes, referring to the geographic area demarcated by the census perimeter. The municipality's administrative center (i.e. town hall or the Mayor's Office) is found within it; population center: defined as a collection of at least twenty (20) contiguous homes, neighboring or adjoining, located in the rest of the municipality or in the non-municipal area (departmental township). It includes the population cores of municipal townships, police inspectorates and settlements; dispersed rural: characterized by the dispersed arrangement of houses and productive farms found in it. It corresponds to the territory that is part of neither the municipal capital (Class 1) nor the population centers (Class 2). It is characterized by objects and elements related to farming, fallow or recreational fields, and mining or other extractive uses. The number of residential units per area is lower than in urban areas. Definitions found in the DANE Concept Manual, available at: https://www.dane.gov.co/files/censo2018/informacion-tecnica/CNPV-2018-manual-conceptos.pdf

5   In this sense, a household is considered the person or group of people, related or not, who: occupy a house in part or in full, meet basic needs out of a common budget, and generally share meals. Definition taken from the DANE Concept Manual referred to in the previous note.

6   Slides 28 to 31 of the following presentation present a summary of international migration data: https://www.dane.gov.co/files/censo2018/informacion-tecnica/cnpv-2018-presentacion-3ra-entrega.pdf

7   Information available at: https://r4v.info/es/situations/platform

Finally, we must mention the demographic impact of forced displacement. According to figures from the Victims Unit (Unidad de Víctimas) as of August 2020,[8] the number of people who have been forced to migrate within the country, leaving their place of residence and regular work at risk to their life, health or safety, is 8,062,515.

Technology penetration

In terms of connectivity, the Ministry of Information and Communication Technologies (Ministerio de las Tecnologías de la Información y Comunicación, MinTIC) is the agency providing the most up-to-date information. Using the Quarterly ICT Bulletin, First Quarter 2020 Figures (MinTIC, 2020), published in September 2020, Colombia has 7.13 million fixed internet connections, which translates to 14 connections per 100 inhabitants, while there are 29.8 million mobile connections, or 58.4 connections per 100 inhabitants.[9] However, it is important to highlight that of the mobile connections, only 21 million are over 4G networks, with 7.5 million via 3G and 1.2 million using 2G networks. Likewise, in terms of contract type, the majority of mobile connections are on demand or prepaid (17.04 million), while only 12.72 million people connect using post-paid plans. We must emphasize that, if we make the reasonable assumption that people with fixed internet are also those who have access to mobile internet over 4G networks, less than half the Colombian population has access to high-speed internet.

On the other hand, if we take households as the unit of analysis, we must refer to data from DANE. The latest figures, presented in July 2019, correspond to information up to 2018[10] and are summarized in the following illustration:

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8   Figures from the Victims Unit are published on the following site: https://www.unidadvictimas.gov.co/es/registro-unico-de-victimas-ruv/37394

9   While there has been an increase of approximately 170,000 fixed connections over fourth quarter 2019 data, the latter reflect a decrease of 1.1 million mobile connections.

10   This information is presented in two technical bulletins on basic indicators of ICT possession and use in households and by individuals 5 years old and up. One bulletin presents general information, while the other presents other data by department. The information comes from the National Quality of Life Survey (Encuesta Nacional de Calidad de Vida) conducted in 2018 by the agency.

Figure 1. Rate of households with an Internet connection by connection type. National Total, Capital and Population Centers and Dispersed Rural. 2018

Source: Technical Bulletin of basic possesion and use indicators for information and communication technology (ICT) in households and individuals 5 years old and up. DANE
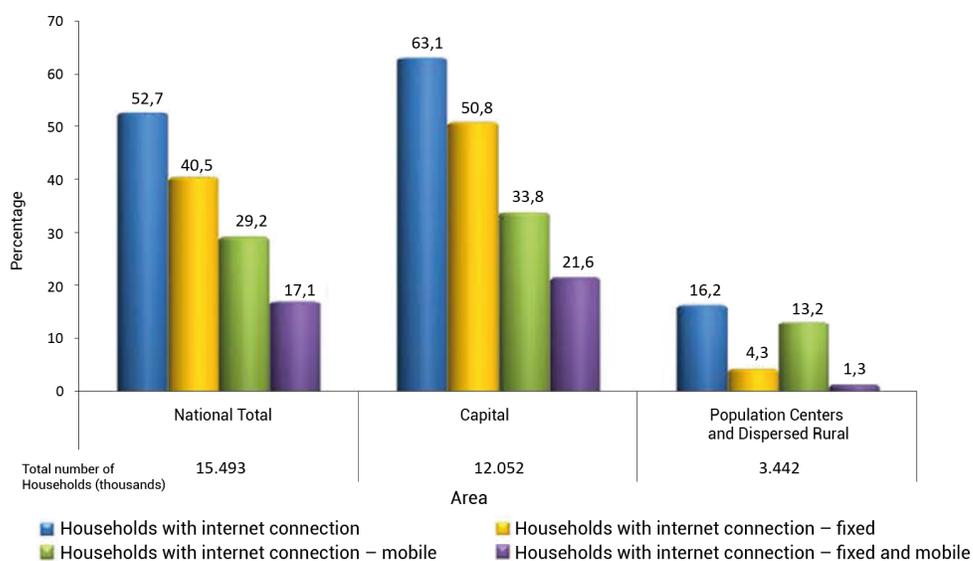
Note 1: The basis for calculation of this indicator is total number of households.
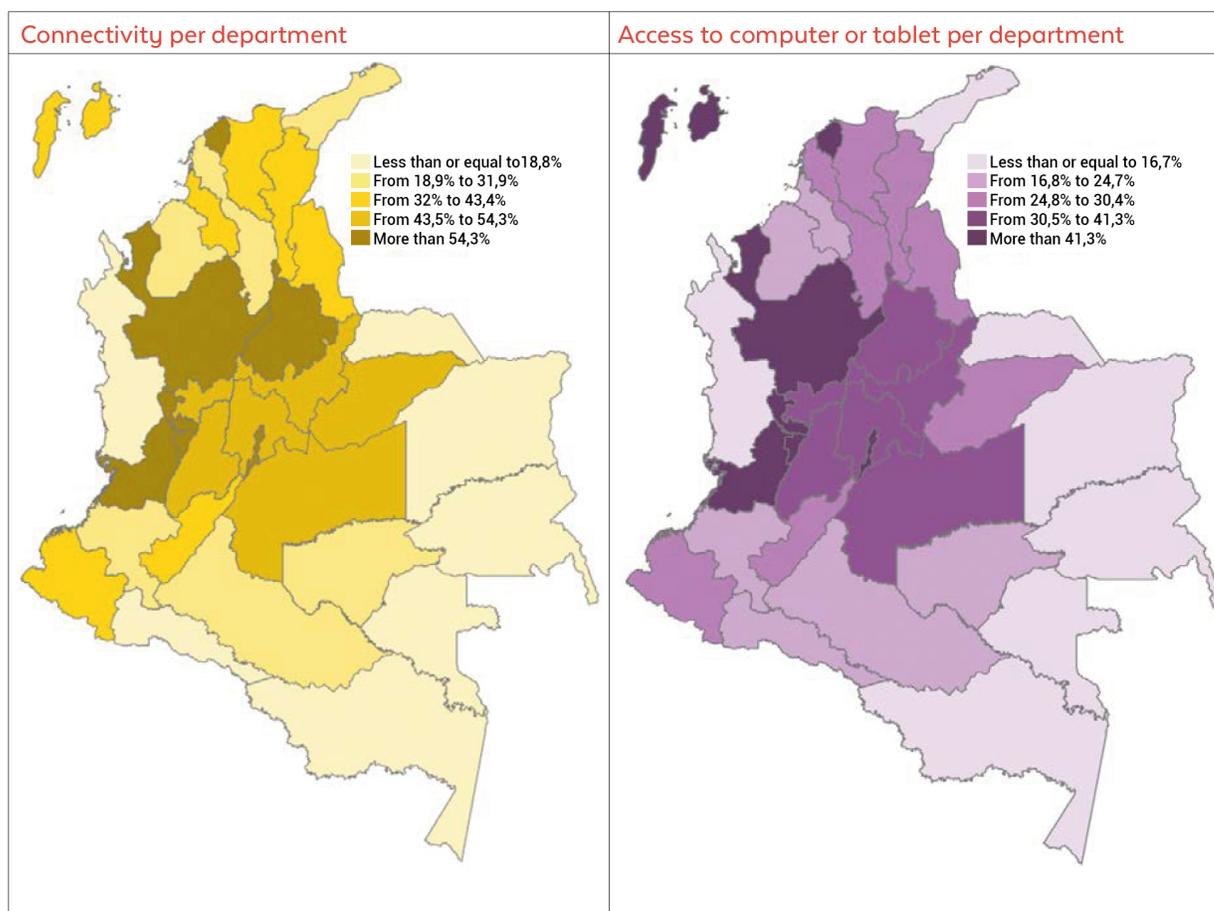Note 2: Due to rounding to the nearest thousand, the sum total of households may vary slightly.

In terms of devices, DANE indicates that 20.6% of households have a desktop computer; 28.8% have a laptop; and 10.9% have a tablet. It must be pointed out that some households have more than one device, as reflected in the total percentage of households with any device, which is only 41.6%. Moreover, it is important to emphasize that only 9.4% of households in population centers or dispersed rural areas (those that are not municipal capitals) have any of these devices.

Finally, it is also key to note that the distribution of connectivity and access to devices is unequal in regional terms. The following DANE maps show this clearly.

Table 3

Source: Departmental Technical Bulletin of basic possession and use indicators for Information and Communication Technologies (ICT) in households and individuals 5 years old and up DANE

Connectivity per department	Access to computer or tablet per department

Connectivity per department legend:
- Less than or equal to 18,8%
- From 18,9% to 31,9%
- From 32% to 43,4%
- From 43,5% to 54,3%
- More than 54,3%

Access to computer or tablet per department legend:
- Less than or equal to 16,7%
- From 16,8% to 24,7%
- From 24,8% to 30,4%
- From 30,5% to 41,3%
- More than 41,3%

Institutional structure for technological development

In terms of the government, there are three entities involved in technological development: the Ministry of Science, Technology and Innovation (Ministerio de Ciencia, Tecnología e Innovación, MinCiencias), the Ministry of Information and Communications Technologies (MinTIC) and the Office of the Presidential Advisor on Economic Affairs and Digital Transformation (Consejería Presidencial para Asuntos Económicos y Transformación Digital).

Although it would nominally appear that the Ministry of Science, Technology and Innovation is the main actor in the subject, its young age—having effectively started up in December 2019 via Decree 2226—means that through inertia, MinTIC and the High Office of the Advisor remain in charge. According to the MinCiencias website,[11] this agency would be responsible for the formulation and coordination of the design, implementation and evaluation of the National Science, Technology and Innovation Plan; steering and coordination of the National Science, Technology and Innovation System; as well as the establishment

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11   https://minciencias.gov.co/ministerio/funciones

of guidelines for public agencies on science, technology and innovation and the strengthening of regional capacity.

The Ministry of Information and Communications Technologies is the ICT specialist agency. While it is true that formally its functions, described in Act 1341 of 2009 and updated by Act 1978 of 2019, would be limited to only this kind of technology, it is currently present in the development of activities related to digital technology in general, possibly due to the newness and as yet short life of MinCiencias. An example of this is found in the MinTIC responsibilities for developing the public policy on artificial intelligence (AI), CONPES 3975, which we will discuss later on.

Finally, the Office of the Advisor to the President on Economic Affairs and Digital Transformation, regulated by Article 25 of Decree 1784 of 2019, has an important role to play. This regulatory instrument is the one developing the structure of the Administrative Department of the Office of the President of the Republic (Departamento Administrativo de la Presidencia de la República, DAPRE) and thus is prone to constant modification. As a case in point, the structure of the Office of the Advisor in question was recently modified, in October 2019, via Decree 1786, which changed its name (it was previously known as the Office of the Advisor to the President for Innovation and Digital Transformation) and its personnel. Notwithstanding the list of functions included in the article mentioned above, we can highlight here the Office's role in advising the president on everything related to digital transformation and the so-called "fourth industrial revolution," as well as its participation in obtaining international cooperation, in coordination with the Colombian Presidential Agency of International Cooperation (Agencia Presidencial de Cooperación Internacional de Colombia, APC-Colombia).

In addition to the above, it is pertinent to mention the Communications Regulation Commission (Comisión de Regulación de las Comunicaciones, CRC), for its role regarding telecommunications networks and services, and the National Planning Department (Departamento Nacional de Planeación, DNP), for its central role in development of public policy, including AI-related policies.

In terms of international cooperation in the area of AI, the inauguration in Colombia of the Center for the Fourth Industrial Revolution linked to the World Economic Forum stands out. While in theory this seeks to bring together public and private entities and academia, it seems to be largely focused on a business and entrepreneurship logic. For their part, the Inter-American Development Bank and the World Bank have accompanied some digitalization initiatives in the Judicial Branch.[12]

Regulations

From the perspective of international human rights law, we can approach the subject from two angles: the context of due process and artificial intelligence as it relates to the deployed technology. In terms of the latter, we find no binding instrument in Public International Law. The case is different for the human right to due process, which is enshrined in instruments such as the International Covenant on Civil and Political Rights, Article 14,[13] or the American Convention on Human Rights, Article 8. Colombia has ratified the two

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12   The Expediente electrónico y dimensionamiento para la transformación digital judicial report, available at ht-tps://www.ramajudicial.gov.co/documents/10228/35666503/INFORME+TRANSFORMACI%C3%92N+DIGI-TAL+RAMA+JUDICIAL..PDF/53701101-e30c-466b-841a-98faf9fce8e9, documents the multilateral bank accompaniment of diverse digitalization of justice initiatives in Colombia.

13   In particular, its first point. While it is true that this focuses on the aspects of equality, autonomy, impartiality and disclosure, it is one of the first reference points to consider in the area of due process.

instruments mentioned[14] and has enshrined and imolemented this right in its legal system.[15] However, as we shall see further on, both the regulation of the process for selecting tutela cases and the functions projected for PretorIA up to now indicate that its use will not affect the content protected by the human right to due process.

On the other hand, while it is true that there are no existing AI-related international standards applicable to Colombia, the country aligns with Inter-American Development Bank and Organization for Economic Cooperation and Development (OECD) initiatives on the matter. Colombia participates in the work of the fAIr LAC initiative and adhered to the OECD's recommendations on AI in May 2019. It is for good reason that CONPES 3975, which we will address later on, explicitly mentions the OECD's advances.

We can take the same approach to national legislation. If we consider the process PretorIA is integrated into—the selection of tutelas—this has been jointly defined by the Constitution; Decree Law 2591 of 1991, regulating the exercise and processing of tutela action; and Agreement 02 of 2015, by which the Constitutional Court's rules of procedure are unified and updated. Without detracting from the more detailed analysis below, a joint reading of these sources indicates that tutela is the constitutional guarantee for demanding, in a preferential, summary manner, the immediate protection of fundamental rights.

For their part, regulations on access to public information were adopted via Law 1712 of 2014 (pre-reviewed by the Constitutional Court, which ruled via Decision 274 of 2013) and its implementing measures, Decree 103 of 2015. According to these regulations, the general rule is for maximum disclosure of information in the hands of State agencies, including courts, tribunals and high courts. In addition, Article 123 of the General Procedural Code, subsidiary procedural rules, establishes a conditional disclosure of judicial dockets that, subject to requirements, may be examined not only by the parties but also by registered lawyers, even if they lack status as agents of the parties. However, disclosure of the selection process has a few limitations, as selection chamber deliberations and acts are confidential (Art. 55 of Agreement 02 of 2015).

In the area of data protection, the applicable regulations are Law 1266 of 2008 (pre-declared constitutional in Constitutional Court Decision C-1011 of 2008); Law 1581 of 2012 (pre-declared constitutional by the Constitutional Court in Decision C-748 of 2011); and Regulatory Decree 1377 of 2013.

In terms of institutional structure, the Superintendency of Industry and Commerce's role as data protection authority, exercised via its Office of the Delegate for Personal Data Protection, stands out. This authority is empowered to proceed with investigations of possible infringements of the law, as well as planning measures leading to the effectiveness of habeas data rights. This oversight is complemented by the actions of the Office of the Attorney General when actors of a public nature intervene in the processing of data. The Office of the Attorney General, whose functions include the role of ombudsman, also has the authority to ensure compliance with legislation on access to public information.

On the other hand, Colombia has no specific AI-related legislation, although there is a bill in the House of Representatives with reference number 021/2020C. Likewise, Colombia has a public policy document for

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14   The International Covenant on Civil and Political Rights was ratified by Colombia in 1969; the American Convention on Human Rights, in 1973.

15   Colombia's Constitution broadly includes the right in Article 29.

AI: CONPES[16] 3975. The document, which aligns with OECD positions on the subject, aims at the following lines of action:

1. Reducing barriers that impede incorporation of digital technologies in the private and public sectors to facilitate the country's digital transformation.
    1.1 Reduce barriers related to the lack of culture and unfamiliarity to address the adoption and operation of digital transformation in the private sector.
    1.2 Develop regulatory and institutional adjustments favoring the adoption of digital transformation in key components of corporate productivity.
    1.3 Improve the performance of the government's digital policies, to address the adoption and operation of digital transformation in the public sector.
2. Creating enabling conditions for digital innovation in the public and private sectors, with the goal of becoming a mechanism for development of digital transformation.
    2.1 International alliances for innovation.
    2.2 Design and implement initiatives encouraging entrepreneurship and digital transformation.
    2.3 Promote ICT-based innovation in the public sector.
    2.4 Implement high-impact initiatives based on digital transformation.
3. Building the capacities of human capital to face the 4IR [4th Industrial Revolution], in order to ensure required human resources.
    3.1. Generate enabling conditions that favor the development of digital competencies during the educational journey, corresponding to the challenges of technological transformations.
    3.2 Develop capacities and competencies to strengthen educational community interaction with emerging technologies to leverage the opportunities and challenges of 4IR, or Industry 4.0.
    3.3. Configuration of innovation ecosystems aimed at generating appropriation of the culture of innovation to encourage social and economic development.
    3.4. International alliances for talent formation.
    3.5. Preparation of education, with a priority on AI, that contributes to the development of competencies for 4IR.
4. Developing enabling conditions to prepare Colombia for the economic and social changes entailed by AI and to foment other 4IR technologies.
    4.1. Generate enabling conditions to foment the development of AI in Colombia (DNP, 2019).

The development of these lines of action presupposes the production of documents. Due to their relevance on the subject, we can highlight the following, listed with their respective leaders and finalization dates:

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16   The National Council on Economic and Social Policy (Law 152 of 1992) is the most important national planning authority in Colombia, assisting the Government in economic and social development. One of the functions of this Council is the preparation of public policy development documents such as CONPES 3975 on AI mentioned above. The Council includes the President, the Vice President, all ministers, the Director of the Administrative Department of the Office of the President (DAPRE) and the Director of the National Planning Department (Departamento Nacional de Planeación, DNP).

Figure 2: Example of publication of the selection criteria in Auto de Selección.
Source: Auto de Selección. August 28, 2020.

Document	Responsible Party	Finalization Date
Cross-cutting ethical framework to guide the design, development, implementation and evaluation of AI systems implemented in the country, following the principles proposed by the OECD.	MinTIC. Vice Minister for Digital Economy	11/30/2020
Standards for the implementation of inclusive AI systems in the country, establishing requirements to ensure inclusion at each stage.	MinTIC. Vice Minister for Digital Economy	12/01/2021
Policy on cybersecurity establishing measures and standards for protecting users in the use of AI systems.	DNP. Digital Development Division	03/31/2020
Plan to provide technical assistance for supervisory and surveillance agencies to create and define regulatory sandbox and beach-type testing environments in artificial intelligence.	DAPRE. Office of the Advisor to the President for Economic Affairs and Digital Transformation	12/31/2022
Guidelines for the implementation of Data Trust and/or Data Commons models in Colombia and the regulation necessary for their operation.	MinTIC. Vice Minister for Digital Economy	12/31/2020

To date, each of the DAPRE documents on the ethnical framework for AI[17] and on the creation of regulatory sandboxes and beaches[18] has been opened to comments. It is unknown what the next steps are for them, and their relationship to the documents projected by CONPES is also unclear.

In terms of PretorIA, no regulatory reforms linked to the system under analysis have been implemented. Keeping in mind that it has yet to be deployed, it is unclear whether regulatory reforms will be necessary. If so, these would come from the Constitutional Court itself and would be considered regulatory, in the form of an agreement, either having its own instrument or amending Agreement 02 of 2015. In the same line, relevant judicial interpretations on the PretorIA system, if any, will come from the Constitutional Court itself.

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17   The document subject to commentary, as well as the observations sent, may be consulted at https://dapre.presidencia.gov.co/AtencionCiudadana/convocatorias-consultas/consulta-200813-marco-ia-colombia

18   The document subject to commentary, as well as the observations sent, may be consulted at https://dapre.presidencia.gov.co/AtencionCiudadana/convocatorias-consultas/consulta-200820-regulatory-sanboxes-beaches-ia

Case description

Where is PretorIA deployed? The tutela selection process

To frame analysis of PretorIA as a system, we will describe the process within which it operates. PretorIA is being developed by the Constitutional Court and has been planned as a tool to support the process of "tutela selection," a special process which arises in the Constitutional Court in the context of the procedural process for writs of protection of fundamental rights.

The writ of protection of fundamental rights (tutela) is a constitutional writ established in Article 86 of the Political Constitution and regulated by Decree Law 2591 of 1991 that has the following characteristics:

- Its tenure is universal. That is, it is an act that can be exercised by anyone as a holder of fundamental rights.
- Its purpose is the immediate protection of fundamental rights when these are jeopardized or threatened.
- It is preferential, enjoying precedence over any other matter except those dealing with habeas corpus.
- It is summary, giving the court or tribunal 10 days for its resolution.
- It is subsidiary, which means it can only be exercised in the absence of another judicial defense measure, or provisionally to prevent irrevocable harm.
- It falls under constitutional jurisdiction. Since Colombia does not have specialized constitutional courts, with the exception of the Constitutional Court, this proceeding may be filed before judges or tribunals of any jurisdiction, who then act as constitutional judges.

It is the role of the Constitutional Court to review, in the form determined by statute, the judicial decisions connected with the protection of constitutional rights (Art. 241.9 of the Constitution). PretorIA is integrated into the process for reviewing the judicial decisions produced in the exercise of the writ of protection. Specifically, it operates in the process of selecting the tutela dockets that will be subject to review. In order to have a full understanding of PretorIA, we will describe the nature of the review process, the intervening bodies, the process itself and the problems with this process that the system's deployment is intended to mitigate.

In terms of the nature of the review process we highlight its legal nature. Article 33 of Decree Law 2591 defines the character and nature of the selection process in the following terms:

> Article 33. The Constitutional Court shall appoint two of its Justices to select, with no express grounds and at their sole discretion, the tutela decisions that are to be reviewed. Any Justice of the Court, or the Attorney General, may request that a particular tutela decision excluded by them be reviewed when they consider that the review may clarify the scope of a right or avoid serious harm. Tutela cases that are not excluded from review within 30 days following their receipt, must be decided within a period of three months.

As we have seen, Article 33 of Decree Law 2591 indicates that this selection shall [have] no express grounds and [be] at their sole discretion, which makes clear its discretionary nature, an aspect also found in Article 52 of Agreement 02 of 2015 of the Constitutional Court. Similarly, it should be highlighted that there is no subjective right to have a case selected (Art. 52 of Agreement 02 of 2015) and that the Selection Chamber's decisions are not subject to appeal (Art. 55 of Agreement 02 of 2015). Regarding this discretionary nature and its implications, the Constitutional Court has indicated:

If the review carried out by the Court is eventual, and thus may or may not take place, absent any provision making it mandatory, and if, furthermore, an express legal standard confers broad, discretionary power on the Court justices integrating the Selection Chamber on a rotating basis, to decide which tutela decisions are to be reviewed and which not, it is clear that no-one can attempt to file any action or appeal over the fact that their case was or was not chosen for review, nor argue that the determination not to select the matter represents or implies a violation of fundamental rights of any of those who were party to or intervened in the corresponding proceeding (emphasis added) (Constitutional Court, 1996).

On the other hand, both the selection of tutela dockets and their eventual review are acts of a jurisdictional nature; they are incorporated in the procedural iter of the writ of legal protection of fundamental rights which, in any case, end either by not being selected or by review and the corresponding pronouncement in the form of a ruling. The Constitutional Court has indicated that in no case may the selection process be understood as an administrative act and, therefore, review requests submitted by citizens, to which we will refer shortly, are not considered requests in exercise of the right of petition (Constitutional Court, 1995b).[19]

While it is true that the selection process is guided by the principles of transparency and disclosure (Art. 51 of Agreement 02 of 2015), there are some limitations on disclosure of the process. Two provisions of Article 55 of the Court Regulations describe these limitations: 1) while the Selection Order listing the dockets selected for review must succinctly mention the criteria used in selection, it is not necessary for each specific decision to state its grounds; 2) both the meetings of the Selection Chamber and its acts are confidential. Nonetheless, the Constitutional Court has developed the practice of holding what are called "tutela selection hearings" in which account is given of the process and the random assignment of selected cases to the Review Chambers is conducted publicly. These hearings are made public via YouTube.[20]

Notwithstanding the discretionary nature of the decisions of its selection chambers, the Constitutional Court has established a non-exhaustive list of criteria to guide this effort, by indicating certain criteria that must be considered by the justices when deciding on selection of judicial decisions regarding tutela, as follows:

- Objective criteria: case-law unification, novel subject, need to rule upon a particular line of juris-prudence, requirement to clarify the content and scope of a fundamental right, possible violation or disregard of a Constitutional Court precedent.
- Subjective criteria: urgency of protecting a fundamental right or the need to bring about a diffe-rential approach.
- Supplementary criteria: fight against corruption, examination of rulings by international legal or quasi-legal instances, tutela against judicial court orders in terms of constitutional case law; preservation of general interest and serious impact on public assets (Constitutional Court, 2015).

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19   Order 034 of 1996 makes a similar pronouncement.

20   As of October 1, 2020, the playlist with selection hearings can be found at the following URL: https://www.you-tube.com/playlist?list=PLIXmT4OzTCv4fehT3Y9O69Lh4osTd0Rb3

Figure 2: Example of publication of the selection criteria in Auto de Selección.
Source: Auto de Selección. August 28, 2020.

N°	Docket	Insisting Authority	Plaintiff	Defendant	Selection Criteria
1.	T-7.780.673	National Agency for Legal Defense of the State	Colombian Pensions Administrator – Colpensiones	Subsection A, Second Division of the Council of State	Objective: Disregard of Constitutional Court precedent Supplementary: Tutela against judicial court orders in terms of constitutional case law

To end this analysis of the nature of the selection, it must be highlighted that the provisions mentioned, in terms of the requirement to make some of the selection criteria explicit, are the product of what is known as the "Pretelt Scandal." This is a corruption case in which the then Justice Jorge Pretelt Chaljub was alleged to have accepted bribes for influencing the selection of certain *tutela* cases. Prior to Agreement 02 of 2015, *tutela* selection had much more succinct regulations: limited to Article 49 of Agreement 02 of 1992,[21] rather than the current five comprising Sections I and II of Chapter XIV of the Court's rules of procedure.

In terms of intervening bodies, the applicable regulations identify direct participation in the selection of tutelas by the following actors: in the first place, the Selection Chamber and its justices. Each month two Constitutional Court justices are elected, at random and on a rotating basis, to conform the selection chamber. In addition to this role, these justices may, individually, preselect cases for consideration by the Selection Chamber.

Second, the Selection Process Analysis and Monitoring Unit (Unidad de Análisis y Seguimiento al Proceso de Selección, UAySPS). This body, consisting of nine members appointed one per magistrate's office and coordinated by a person selected by the Court Presidency, has a central role in the detailed organization and

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21   Constitutional Court. Agreement 02 of 1992, Article 49. Tutela Selection Chamber. Each month the Full Chamber of the Constitutional Court shall appoint two of its members to constitute the Tutela Selection Chamber, on a rotating basis and by lots. To cover the whole list, the drawing starts with any justice who has not been drawn. The Secretary General shall immediately inform the Justices comprising the selection chamber of the tutela actions that must be given consideration by the Chamber, for which it will deliver a schematic summary which will include, at a minimum, the cause number, identification of the parties and the fundamental right that is alleged to have been violated.

administration of the selection process. Article 54 of Agreement 02 of 2015 describes its functions,[22] which focus on administrative and substantive management of the selection process.

Intimately linked to this Unit are the *judicantes*, law students who support the selection process. Although organizationally they are part of the magistrate's office, their work is supervised by an official of this office who is in turn part of the Unit and who conducts this supervision in exercise of the role described in Article 54(b) of Agreement 02 of 2015. That is, their work is not limited in time to the period during which the justice of their office participates in the Selection Chamber.

Finally, we have the *Secretary General* of the Constitutional Court, who performs three functions central to the selection process: 1) defining the numbering of *tutela* dockets that will be used by the Court; 2) informing the Unit of the dockets that must be considered by the Selection Chamber, including citizen petitions and petitions of insistence; 3) providing a response to citizens about petitions requesting review of a *tutela* decision.

On a secondary level, the remaining Constitutional Court justices and the Court's Presidency have a stake in the selection process, along with the Rapporteur, the Press Office and the Systems Area, because of their support to the Unit. Finally, others with a stake include parties to tutela processes and the deciding

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22   The matters selected by the Chamber shall be distributed on a rotating basis and in alphabetical order by last name among the Court Justices incorporating the respective Review Chambers, to rule on them.

According to Article 33 of Decree 2591 of 1991, the Selection Chamber is empowered to select at its sole discretion the tutela sentences that shall be subject to review. In virtue thereof, the petitions received from individuals interested in having a tutela decision reviewed shall be answered by the Secretary General of the Corporation, in accordance with the orders of the Selection Chamber.

The same procedure is followed in case of a petition of insistence by the individuals for review of a decision excluded from review, which is at the discretion of the Ombudsman or of a Constitutional Court Justice, under the terms of the abovementioned Article 33 of Decree 2591 of 1991.

These are: a) Coordinate the entire tutela preselection process, applying the guiding principles and criteria; b) oversee and approve the work done by those in professional legal or judiciary practice to obtain the title of lawyer; c) unify the internal parameters for the preparation and processing of schematic summaries which must take into consideration the criteria for selecting tutelas and the methodologies to be followed (Supporting Tables). These guidelines may be amended by the Oversight Unit, following acceptance of a new methodology endorsed by the Full Chamber; d) conduct daily monitoring of the preparation of schematic summaries and supporting tables, to guarantee performance of the work and timely discharge to the Selection Chambers; e) propose unified training methods and produce, with approval of the Full Chamber, documents, texts or audiovisual material facilitating this work; f) ensure the improvement of working conditions and environment, proposing any necessary measures to the Full Chamber; g) communicate to magistrates' offices the progress, setbacks or difficulties encountered in the tutela preselection process; h) submit periodic reports to the corresponding Selection Chambers and Full Chamber regarding: (i) the main issues addressed by the tutela dockets received by the Court; (ii) identifying the most relevant legal problems for interpretation of a particular fundamental right or the operation of constitutional justice; (iii) exposing the existence of structural or short-term situations affecting a significant number of vulnerable populations; (iv) detecting problems in the selection procedures implemented and proposing specific guidelines and recommendations to the Full Chamber; and (v) warning of potential corruption cases related to the granting of tutela; i) generate statistics enabling the identification within the selection processes of entities repeatedly violating fundamental rights, important state legal problems that must be analyzed, novel issues that must be selected, inter alia; j) conduct the necessary analysis for consolidating case-law issues and rules on the different fundamental rights and issues found for tutela, review by the Full Chamber and eventual publication on the Constitutional Court's webpage; k) inform the Full Chamber regarding tutela dockets that ignore the institution's case law, in order to adopt the relevant legal measures or issue decisions with effects that can be extended to similar cases (Constitutional Court, 2015).

court or tribunal in first and, as applicable, second instance, due to their participation in the case; as well as citizens soliciting selection, and agents with standing to exercise insistence (Justices, Attorney General, Ombudsman, National Agency for Legal Defense of the State). This is the kind of request that these authorities may elevate in order for the Selection Chamber to reconsider its decision to exclude a specific *tutela* case from review.

Figure 3: **Actors and stakeholders in the tutela selection process.**

Prepared by authors.
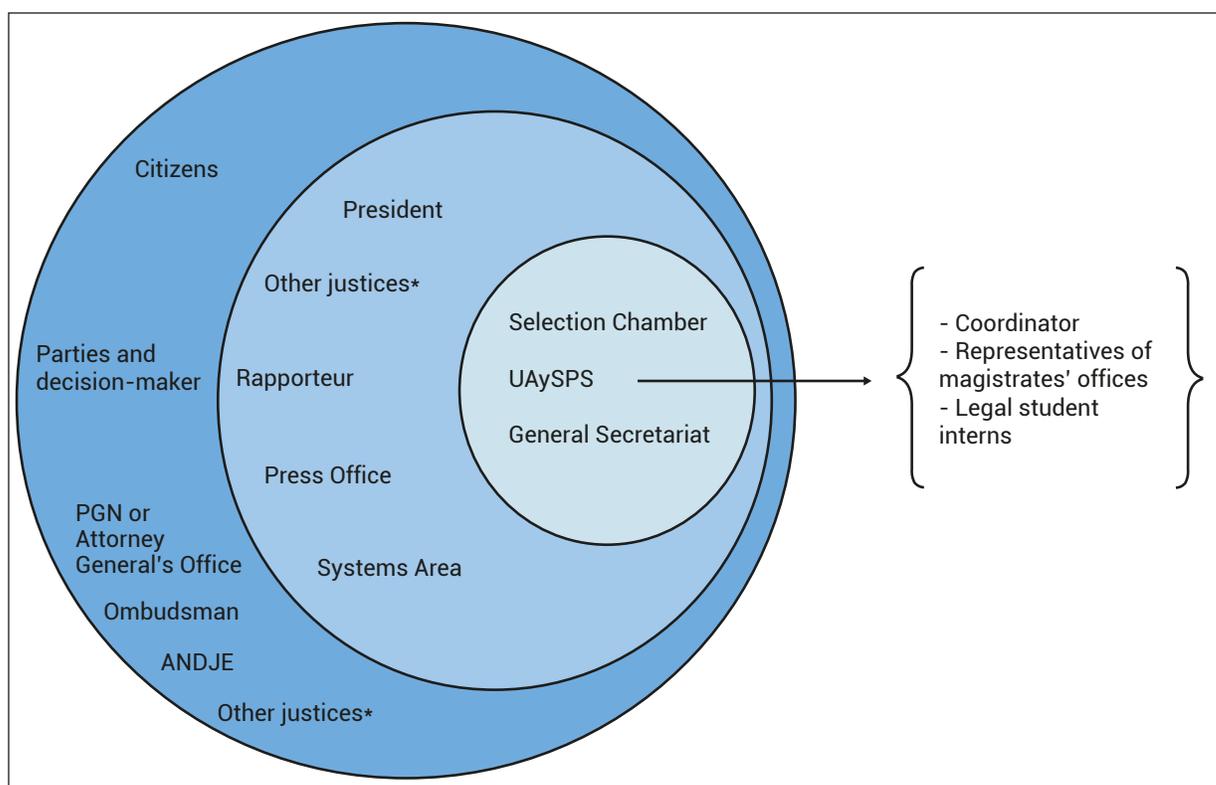
Let's look now at *tutela* selection as a process. Following referral of cases to the Constitutional Court (by legal mandate, every tutela case must be referred for its eventual review), the Constitutional Court Secretariat assigns each one a reference number serving internal document management purposes. One of these purposes is the definition by the Secretary General of the range of dockets that will be subject to analysis in the selection process. However, not all of these dockets are analyzed by the Selection Chamber, only those:

1) that have been preselected by the Selection Process Analysis and Monitoring Unit or by one of the Chamber's justices: this is done through what are known as "schematic summaries",[23] in whose preparation the law student interns (judicantes) play a central role;

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23   These summaries include identifying information (docket number, parties, first instance) and background information in a summarized manner (the facts, proceedings by instance, legal issues, observations of the person preparing the summary and their conclusions).

2) whose analysis has been requested by a citizen: this request is made in relation to the ranges defined by the Secretary General and within an established timeframe;

3) that have not been selected but with regard to which there has been what is known as "insistence". That is, following notification by the Selection Order of a case's non-selection, any justice of the Court, the Attorney General, the Ombudsman, and the National Agency for Legal Defense of the State have 15 calendar (or consecutive) days to request that the Selection Chamber reexamine the case for its possible selection.

The selection process has the following steps: 1) the docket is sent to the Constitutional Court where it is assigned an internal reference number; 2) based on this number, the Secretary General determines when the docket is subject to analysis for its selection; 3) if the docket is preselected or there is a citizen request involved, it will be considered by the Selection Chamber; 4) if the docket is selected, it will be distributed for review; 5) if the docket is not selected, the competent authorities may insist within a 15-day timeframe; 6) if there is no insistence or it is not ultimately selected, the docket will return to the court or tribunal of first instance for archiving; 7) the information, including the distribution for review, is published via Selection Order.

Finally, the problem that PretorIA is intended to mitigate is the overload in moving ahead with the selection process for judicial decisions on tutela, given the high volume of tutela complaints filed nationally. We must remember that each tutela docket is sent to the Constitutional Court for its eventual review. Accordingly, in 2019 alone 620,242 tutela dockets were sent to the Constitutional Court. The following chart shows this overload:

Figure 4:Tutelas recieved per year.
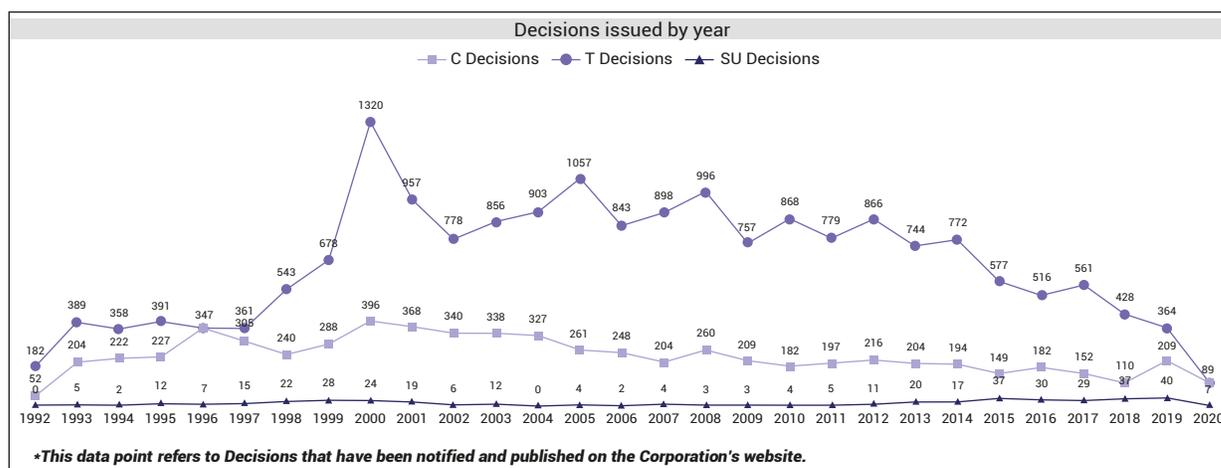*Source: Constitutional Court. Consulted in September 2020.*
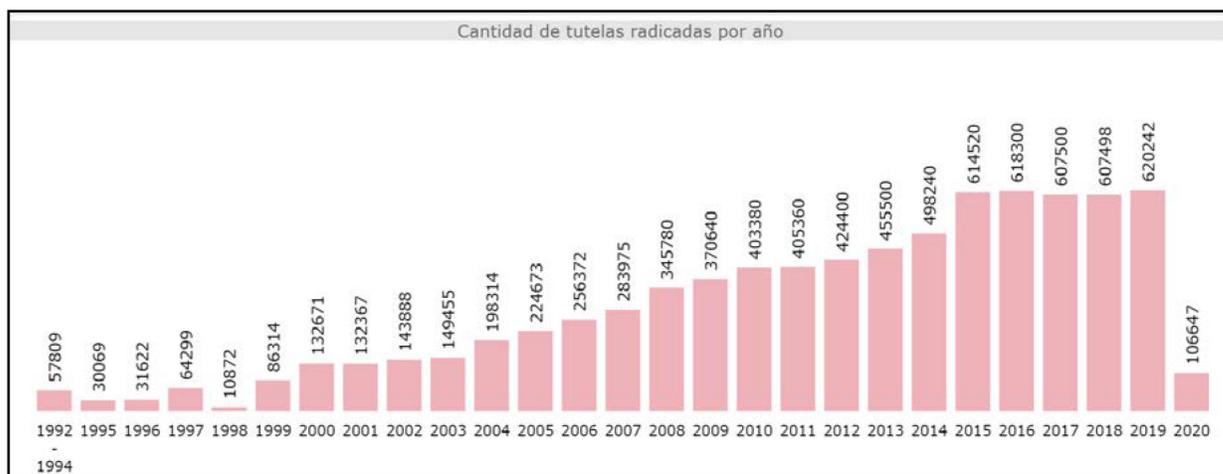
The number of tutela dockets received, as input value, must be contrasted with the number of cases selected for review. To this end we have a proxy indicator: the number of Type SU and T decisions issued. Although this indicator does not allow us to directly know the cases selected since there is no one-to-one relationship between tutela dockets and decisions—in particular Type SU decisions which may be the product of reviewing various cases—it does give us an idea of the volumes handled. For example, in 2019, 364 Type

T decisions and 40 Type SU decisions were issued,[24] for a total of 404 decisions depending directly on the tutela selection process. The following chart makes it possible to see the history of decisions issued by the Constitutional Court per year by type.
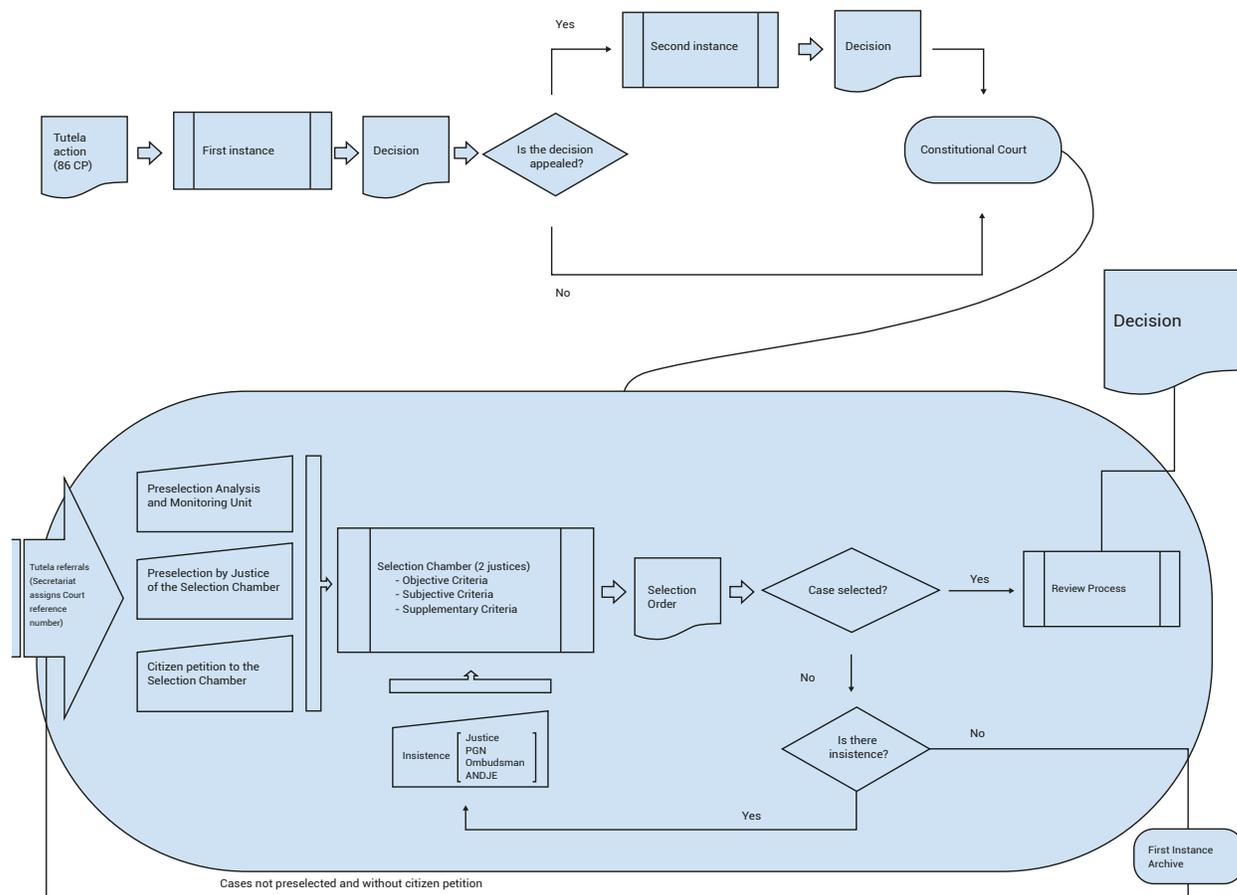
Figure 5: Decisions by year and type.

Source: Constitutional Court. Consulted in September 2020.

The following illustration summarizes the *tutela* selection process:

Yes

| Second instance | Decision |

| Tutela action (86 CP) | First instance | Decision | Is the decision appealed? |

Constitutional Court

No

Decision

Tutela referrals (Secretariat assigns Court reference number)

Preselection Analysis and Monitoring Unit

Preselection by Justice of the Selection Chamber

Citizen petition to the Selection Chamber

Selection Chamber (2 justices)
- Objective Criteria
- Subjective Criteria
- Supplementary Criteria

Selection Order

Case selected?

Yes

Review Process

No

Is there insistence?

No

Insistence — Justice / PGN / Ombudsman / ANDJE

Yes

First Instance Archive

Cases not preselected and without citizen petition

How did we get here? From Prometea to PretorIA

Prometea in Argentina: The inspiration[25]

In addition to being the name used in Colombia until early 2020, Prometea is the system used by the Public Prosecutor's Office of the City of Buenos Aires. Unlike PretorIA, the Prometea system has already been deployed and is fully operational in Argentina. Prometea can be traced back to September 2017, when the first deployment was implemented in the Office of the Deputy Attorney General for Contentious Administrative Law. This is the jurisdiction in which it deploys its full functionalities, although it is also used in the Office of the Deputy Attorney General for Criminal Law without its main function: prediction. From the perspective of proceedings, Prometea comes under the labor of the Public Prosecutor's Office in its obligation to provide a legal opinion on any ruling that proposes a solution in cases received by the Superior Court of Justice when the latter acts as third instance.

From a functional perspective and without being exhaustive, Prometea can be described as a complex system performing several tasks assisting the Attorney General's Office, which we can divide into two groups: a) aiding in the strict sense, which includes the search and classification of relevant documents for issuing opinions, as well as monitoring times and procedural documents or accompanying work using decision trees; and b) the prediction itself, for which the system may even produce a draft opinion that the public prosecutor, if in agreement, need only sign and send to the Court:

> The second component, the Predictive Module, can be considered Prometea's most sophisticated function. It is based on understanding the document being processed, comparing it to prior documents, finding the solution that was provided in those cases, and proposing the same solution assuming that the cases present analogous factual circumstances (Estevez et al., 2020, p. 59).

Two other points can be briefly mentioned in terms of the system:

1) the user interface involves an environment that includes conversational chat, as well as a voice assistant providing the same functions orally;

25　For this section we consulted the following sources: 1) information from the Public Prosecutor's Office of the City of Buenos Aires (Ministerio Público Fiscal) (available at: https://mpfciudad.gob.ar/institucional/2020-03-09-18-42-38-innovacion-e-inteligencia-artificial); 2) the article "La primera inteligencia artificial predictiva al servicio de la Justicia: Prometea" by Juan Corvalán, published in La Ley of September 29, 2017 (Corvalán, 2017); 3) the book "Prometea. Inteligencia artificial para transformar organizaciones públicas," also by Juan Corvalán and published in 2019 by Astrea ARL, in Argentina, and Universidad del Rosario, in Colombia (Corvalán, 2019); 4) the IDB document "Prometea. Transformando la administración de justicia con herramientas de inteligencia artificial" by Elsa Estévez, Sebastián Linares Lejarraga and Pablo Fillottrani (Estevez et al., 2020); and 5) the articles "¿Hasta qué punto pueden automatizarse las decisiones judiciales? Entérate cómo funciona el software que ya se usa en la Ciudad de Buenos Aires" published in Chequeando on September 30, 2020 (Tarricone, 2020) (available at: https://chequeado.com/investigaciones/hasta-que-punto-pueden-automatizarse-las-decisiones-judiciales-enterate-como-funciona-el-software-que-ya-se-usa-en-la-ciudad-de-buenos-aires/); and "La inteligencia artificial se asoma a la justicia pero despierta dudas éticas" published in la Revista Retina on March 4, 2020 (Berchi, 2020) (available at: https://retina.elpais.com/retina/2020/03/03/innovacion/1583236735_793682.html). It is noteworthy that these two final articles use as a comparative reference the case of COMPAS which, in its operation, seems to have nothing to do with Prometea beyond the fact that its deployment occurs in the justice sector.

2) the system is integrated in the Blockchain Federal Argentina network.[26]

Finally, it must be mentioned that the Artificial Intelligence Laboratory (Laboratorio de Inteligencia Artificial) of the Universidad de Buenos Aires (IALAB) has a page on its website about Prometea at the Inter-American Court of Human Rights.[27] According to this source, "the Court generates different kinds of notifications related to requests for consultative opinions. It takes between 2 and 3 full workdays to send these notifications to the representatives of the 35 Member States and associated organizations." In this context, Prometea "generates more than 100 notifications in less than 2 minutes [...] in the four official languages." In addition, it is capable of modeling resolutions in four minutes and contains a search tool that "enables conduct of a full investigation based on the Court's prior rulings in less than 2 minutes." Notwithstanding the above, with regard to Prometea, the Organization of American States (OAS) server (oas. org) lists only one presentation[28] of the system which Juan Corvalán gave on August 22, 2018, before the Permanent Council of the OAS.

Colombia: From Prometea... (November 2018 – July 2020)

Prometea came first-hand to the Constitutional Court thanks to an academic event at the Universidad del Rosario in Bogota in September 2018.[29] This event featured participation from Juan Corvalán, director of the Artificial Intelligence Laboratory of the Universidad de Buenos Aires (IALAB) and public prosecutor; Martha Sáchica, Secretary General of the Constitutional Court and professor of constitutional law at the Universidad del Rosario; and Grenfieth Sierra, also a professor at that university. Sierra encouraged various meetings with other professors and officials of the Judicial Branch, where the topic of the Constitutional Court's work overload came up, well-illustrated by images of tall columns of tutela dockets piled up in the hallways of the General Secretariat of the Constitutional Court. This situation piqued the curiosity of the IALAB director, who asked if he could see the situation for himself. Corvalán thought that Prometea could contribute to solving the overload problem. The Universidad del Rosario offered to finance this action and that is how the public prosecutor and an IALAB engineer came to the Court, had interviews with various individuals and arrived at the idea—via the president of the Constitutional Court, Alejandro Linares—of conducting a proof of concept to see if Prometea could serve that purpose.

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26   https://bfa.ar/

27   This information is available at: https://ialab.com.ar/portfolio-items/corte-interamericana-de-derechos-humanos/

28   In particular, the OAS server registers Argentina's request to present the system between the April 17 and 27, 2019, dated February 9, 2018 (OAS Note 44 of the Permanent Mission of the Republic of Argentina); its inclusion in the daily agenda for April 20, 2018 (CP/INF. 7935/18); a new request by Argentina to present the system between August 15 and 24, 2018, dated July 30, 2018 (CP/INF.8038/18); its inclusion in the final daily session agenda for August 22, 2018 (CP/OD-2179/18 rev. 1); its inclusion in the minutes for that session (CP/SA-2179/18); and the text of the presentation available at: http://dpicuantico.com/libros/prometea_oea_ingles.pdf

29   The Constitutional Court mentions that it became aware of Prometea in September 2018, in the context of participation in an academic event organized by the Universidad del Rosario, which addressed the utility of ICT in different areas of public law (Constitutional Court, 2020c).

Phase I: Proof of concept (November 2018 – January 2019)

On November 14,[30] the Constitutional Court, the Universidad del Rosario and IALAB signed a memorandum of understanding (MOU) to explore Prometea's potential at the Constitutional Court. Specifically:

> The Parties committed to working together to quantify and standardize information related to the processes performed by THE COURT. This, so that in the short term, THE COURT may apply Prometea's functionalities to some of its processes connected to tutela actions or others that THE COURT may contemplate, including but not limited to the automation of processes of the Secretary General, and the implementation of an experimental artificial intelligence test based on decisions of first and second instance, and of review decisions of the Constitutional Court, in the matter thus defined by THE COURT (Constitutional Court et al., 2018).

This first exploratory phase was brief, ending in January 2019, and its results were presented on February 5 at the Universidad del Rosario. In the words of the Constitutional Court, the test results are as follows:

> (i) lessons learned regarding problems in the capture and quality of information; (ii) lessons learned about problems in natural language reading, and how information for facilitating the process must be grouped and categorized; (iii) challenges with respect to the code and intellectual property rights for the data processing code and source; (iv) inclusion of variables that may lead to biases in the machine learning process; and (v) the need to coordinate and create synergies among the different technology projects being developed at the Court and in the Judicial Branch (Constitutional Court, 2019, pp. 20–21).

However, the way the event was advertised led to the idea that the initiative was more advanced, and at any rate, well beyond an initial exploratory phase.

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30   This date coincides with the Revolution 4.0 and Cybersecurity Forum: Challenges and Opportunities, whose agenda can be seen at https://www.urosario.edu.co/Eventos-UR/DR2/Foro-Revolucion-4-0-y-Ciberseguridad-desafios/inicio/ and in which Juan Corvalán participated as a presenter.

Table 4: Advertising for the proof of concept event

Trino de la Corte Constitucional	Invitación de la Universidad del Rosario

Phrases such as *see the first artificial intelligence system for justice at the Constitutional Court of Colombia*, found in the Universidad del Rosario's invitation, led to imagining a system that was already configured. There was good reason for various individuals from other universities and civil society to react by questioning the transparency of what seemed to be an already advanced process. This inspired a discussion panel at the Universidad de los Andes called "Digital tools in service of justice in Colombia: the PROMETEA case." Its goal was

> to introduce the pilot project for tutela selection at the Constitutional Court, presenting concerns about it and opening debate on the use of technological tools in justice, including artificial intelligence tools.[31]

In the same vein, event records seem to show a system that was already deployed, due to how the system was characterized: *PROMETEA is a technological system whose goal is to assist the constitutional judge with statistical processing of databases and information to facilitate decision making without placing any conditions;*[32] and the description of its functionalities: smart detection, intelligent assist, document automation, Blockchain integration, systematization of case law.[33]

For its part, information published in Argentina also indicated an advanced status. We can thus find a note from DPI Cuántico from February 2019 that already referred to Prometea's results at the Constitutional Court:

> Thanks to joint work between the Innovation and Artificial Intelligence Laboratory of the Universidad de Buenos Aires Law School, the Public Prosecutor's Office of the City of Buenos Aires and

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31   Event records. Available at: https://gecti.uniandes.edu.co/images/pdf/PROMETEA_EVENTO.pdf

32   Ibidem

33   Ibidem

the Universidad del Rosario in Colombia, an unprecedented tool was created combining Artificial Intelligence, intelligent assist, automation and Blockchain (DPI Cuántico, 2019)

The note contains information that the IALAB published on its own website:[34]

> Based on this complex scenario and with the goal of improving the Court's service of justice, the Innovation and Artificial Intelligence Laboratory of the Universidad de Buenos Aires Law School, in conjunction with the Public Prosecutor's Office of the City and the Universidad del Rosario in Colombia, created an unprecedented tool combining Artificial Intelligence, Intelligent Assist, Automation and Blockchain (IALAB, 2019).

There can be no doubt that this first phase is important for the Constitutional Court because it represents the first step on the road to PretorIA. However, a problem arises in this phase which will recur in subsequent phases: an image of progress is presented to the public which bears no resemblance to reality.

While the Constitutional Court was barely getting started on the project, the events at the Universidad del Rosario and Universidad de los Andes, as well as information coming from Argentina, pointed to a system at the Court that was already developed and had clear functions (functions which, as we shall see below, have little to do with PretorIA's current functions). This disconnect has a clear explanation: the presentation of a new, Argentinean tool in the context of a few first tests at the high court, ended up appearing publicly as the existence of a system equipped and ready to operate at the Constitutional Court.

Intermediate Phase: Exploring alternatives and obtaining support (February 2019 – September 2019)

The pilot implementation, however, did not mean the start of work on development at the Constitutional Court. So a period began aimed at studying other alternatives that could contribute to the same goal, as well as seeking support to fund deployment. This corresponds to two facts: 1) following the pilot, the Full Chamber of the Constitutional Court noted the need to analyze other options before committing; and 2) the Constitutional Court does not have its own funds, depending instead on the Superior Council for the Judiciary for its inclusion in Judicial Branch budgets.

In this intermediate phase one more actor got involved in the process: the Transformational Leadership Alliance for the Justice Sector: Innovation and Values for Change [la Alianza Liderazgo Transformacional por el Sector Justicia: Innovación y Valores para el Cambio, henceforth the Alliance]. This is an initiative of the Universidad del Rosario that

> began in late 2017 with a meeting to reflect on the needs for Leading Change with Innovation and Values, in which the Universidad del Rosario invited the productive sector to join in implementing a project that would contribute to strengthening the country and especially the need to consolidate trust in its organizations and institutions, by promoting a correct exercise of Leadership.

> During this meeting the core elements that have been addressed throughout the last two and a

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34   The note, titled "Analyzing 2016 Decisions in 2 Minutes? Prometea at the Colombian Constitutional Court" [¿Analizar 2016 sentencias en 2 minutos? Prometea en la Corte Constitucional] and available at https://ialab. com.ar/prometeacolombia/, appears signed in August 2019. However, both the embedded video, from June 3, 2019; the authorship, which reads May 28, 2019; and the fact that it includes the same numbers and dates as the DPI Cuántico note (for example, the system analyzed 2016 decisions and suggested the 32 most urgent cases) leads one to believe that the note is referring to the proof of concept.

half years of the project were defined; these are based on innovation and values management from leadership.

In 2018 the Alliance was formalized, beginning with the implementation of a series of workshops with judges related to the values component, and the phase of open innovation was initiated to identify innovative ideas that, using technology, would contribute to strengthening the judicial system (Universidad del Rosario, 2020a).

Projects developed by the Alliance would be financed by the private sector. Among noteworthy actors we find the Bogota Chamber of Commerce and the Universidad del Rosario itself. The group of actors would be rounded out with international partners and stakeholders:

<div align="center">Table 5: Actors who have been connected to the Alliance</div>

Contributing Bodies – Group of Agents	Technical collaborators
Bancolombia	IALAB
Cafam	Dalai Lama Center for Ethics and Transformative Values of MIT
Bogota Chamber of Commerce	Fastrack Institute
Colsubsidio	
Corferias	Stakeholders
Corona	Constitutional Court
Davivienda and Fundación Bolívar	Superior Council for the Judiciary
Ecopetrol	Executive Office for Judicial Administration
Grupo Enel	Corporación Excelencia Justicia
Terpel	Legis
Universidad del Rosario	

However, this initiative comes before contact was made with Prometea. On October 10, 2018, an event was held at the Universidad del Rosario with Salim Ismail, director of the Fastrack Institute, and in December that year, an agreement was signed between the university and the Bogota Chamber of Commerce to support the Alliance. The Chamber of Commerce contributed 40,000 USD so that the Fastrack Institute could identify technologies that would support consolidation of the value of transparency in the justice sector over five phases: awakening, alignment, idea formation, solution and acceleration (Bogota Chamber of Commerce & Fastrack Institute, 2018).

The Constitutional Court already knew the Alliance because it had participated in some of its events between May and October 2018 with other actors from the Judicial Branch, such as the Superior Council of the Judiciary, the Supreme Court and the State Council. And the integration with the Alliance's project of that which could be developed following the proof of concept on Prometea was already in play by early 2019 (Constitutional Court, 2019, p. 21).

At the point when the possible synergy between the two processes was proposed, the Alliance was already underway and, in particular, developing what was known as the "open innovation process" spearheaded by the Fastrack Institute:

> In the open innovation process designed to identify ideas, 14 proposals were received from 9 countries. Once the open innovation methodology was supplied, this stage was ended and the partners decided to continue the project, focusing on assessment of the application of technologies to strengthen the process of reviewing tutelas at the Constitutional Court. At that point the Alliance decided to invite five working groups to present proposals on the specific matter, having received proposals from MIT, NYU, IALAB, Eyss and Aidragon (Universidad del Rosario, 2020b).

Finally it was decided to continue working with the Universidad de Buenos Aires team:

> The Buenos Aires IALAB's proposal stood out for its specific technological and methodological approach; for its knowledge of the Constitutional Court, given the previous development of a pilot tool; for the applied expertise of its work team; the proposal's weighted cost; the estimated development times; and in general terms, for the proposal's approach and the explanation of the system's benefits (Universidad del Rosario, 2020b).

This selection exercise served a dual purpose: first, it facilitated analysis of various alternatives, in order to determine which was more appropriate to the needs, capacities and context of the Court. But it also served, in second place, for the Alliance to study the possibility of offering its support for developing the system. In this sense, the conclusions of the exercise were that the project with the Court would be undertaken with the IALAB team, and that the Alliance would support the effort.

Now, it's important in terms of organization to point out that the project to develop PretorIA is framed under two different relationships: 1) the relationship between the Constitutional Court and the Universidad del Rosario and IALAB, in which the problem to be addressed is defined and the technological solution adapted to that definition; and 2) the relationship between the Alliance and the Universidad del Rosario, through which the former contributes economic support, while the Colombian university heads the project. This separation leads to a kind of firewall between the actors financing the initiative and the Constitutional Court. The former do not intervene in the details of development and the latter has no role in financial management of the process.

On the other hand, with the entrance of the Alliance, the cast of intervening actors in the development of PretorIA is complete:[35]

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35   Other contributing entities: Cafam, Colsubsidio, Bancolombia, Corferias, Organización Corona, Davivienda, Ecopetrol, Grupo Enel, Terpel. Other technical collaborators: Dalai Lama Center for Ethics and Transformative Values at MIT, Fastrack Institute of Salim Ismail. Other stakeholders: Superior Council of the Judiciary, Executive Office for Judicial Administration, Corporación Excelencia Justicia, Legis.

Figure 7: Map of actors in development of PretorIA
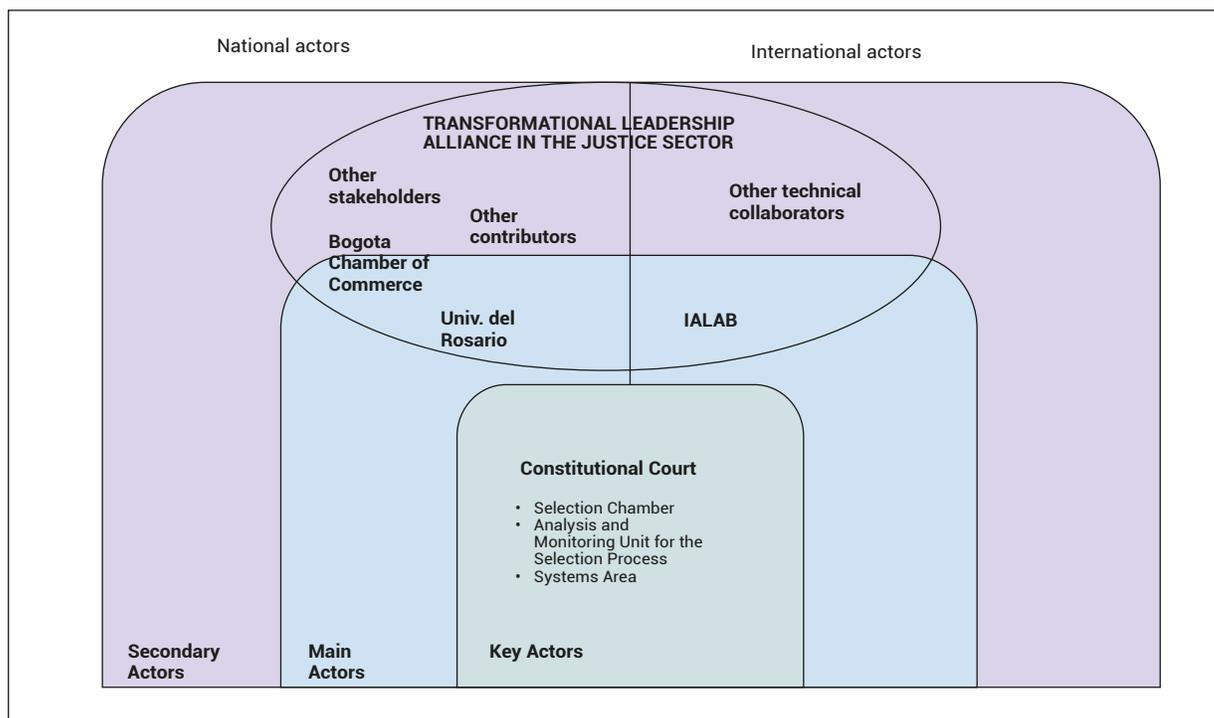
While it is true that this intermediate phase continues to follow a logic of preparation for deployment, the public view that the system is at a more advanced point continues to prevail. In March 2019, Ámbito Jurídico—one of the most important newspapers on legal affairs in Colombia—published an interview with Grenfieth Sierra, Professor at the Universidad del Rosario, in which he was already mentioning that

> the Court is the first space in which Prometea is applied in an active, executive manner by a supreme court, which produces a great experience and a great laboratory allowing it to improve its practices (emphasis in original) (Rivadeneira, 2019).

In April 2019, Ámbito Jurídico published another piece on Prometea focusing on the tutela selection process (Giraldo Gómez, 2019). In civil society the system's arrival was a topic of commentary and in June, Datasketch mentioned the following:

> Prometea was introduced as a solution to unclog the number of tutelas received daily by the Constitutional Court, but its scope and the way it could affect or provide guarantees for citizens' fundamental rights are unknown (Galvis, 2019).

This interest led a group of civil society organizations and academic actors to coordinate a visit to the Constitutional Court regarding the issue. Thus, on July 8, 2019, led by Fundación Karisma, Datasketch, Dejusticia, ISUR, Ius Digna and Professors Óscar Maldonado, Sandra Botero, René Urueña and Santiago Pardo, the group organized a workshop at the Constitutional Court facilitated by the Secretary General,

Martha Sáchica, in which a group of assistant justices, members of the Court's systems team and the *tutela* selection coordinator also participated.[36]

Clearly this intermediate phase represented not an advance in the system's development for the Constitutional Court, but rather finetuning the option to develop and the support necessary for development. However, the public narrative reflecting a status much more advanced than in reality continued to circulate in parallel.

Phase II: System incubation (October 2019 – July 2020)

Once the financial support and technical team were defined, development work for PretorIA began. PretorIA as a system is different from Prometea. While it is based on the prior knowledge and experience of the Argentinean team, it is a new tool, adapted to the needs and guidelines defined by the Constitutional Court (Constitutional Court, 2020c).

In this phase, a work team was integrated into the Constitutional Court with representation at the different court offices. Their goal was to begin to shape the system based on specific needs and guidelines, taking as their starting point a pilot on the right to health, the same topic on which the proof of concept focused. In this phase the tool's scope, search categories prioritizing health, and the interface are defined; functionalities are programmed; parameterization of categories in the system moves ahead; and the system name and image are defined (Constitutional Court, 2020c). It is in this context that the following meetings between the Court's team and the development team take place (Constitutional Court, 2020c):

1. November 1, 2019: basic concepts of artificial intelligence and the characteristics of Prometea are introduced. Assessment of the scope and characteristics of the system for Colombia begins.
2. November 25, 2019: the different material facts to be considered in training the system are analyzed.
3. December 13, 2019: the system's search criteria are defined.
4. December 16, 2019: the project methodology is explained.

The two relationships mentioned above are visible in this phase. The "development relationship" between the Constitutional Court, the Universidad del Rosario and IALAB was documented in the second memorandum of understanding among the three actors. This document focuses on the roles already mentioned: technical, for IALAB; management, for the Universidad del Rosario; and defining the problem, needs and guidelines, for the Constitutional Court. The MOU makes clear, in its tenth clause, that there is no cost to either the Constitutional Court or the Superior Council of the Judiciary for either the development of the project or the use of the tools (Constitutional Court et al., 2019).

The "supporting relationship" or financial relationship between the Universidad del Rosario and the Alliance is seen in an agreement between the university and the Bogota Chamber of Commerce in late 2019 (Bogota Chamber of Commerce & Universidad del Rosario, 2019). The agreement, valued at 388 million Colombian pesos,[37] covers, in addition to the system analyzed here, the development of a workshop by the Dalai Lama

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36   More information on development of the event is available at: https://web.karisma.org.co/como-implementar-inteligencia-artificial-en-la-corte-constitucional-la-pregunta-que-nos-monto-en-una-colaboracion-academia-sociedad-civil-y-la-propia-corte/

37   In addition, the Alliance has donated a server valued at 22,481 USD to the Judicial Branch (Constitutional Court, 2020c).

Center, with members of Colombian high courts. The fourth clause, Commitments by parties, is of particular interest, as it does not mention any role for the Chamber of Commerce in development of the system.[38]

From a public communications perspective, the Constitutional Court again mentions the project in November 2019. On the 21st of that month it publishes on its website a note on the recognition of the entity's rulings by the 2019 Excellence in Justice Awards [Premios Excelencia en la Justicia]. The note includes a brief mention of the development.[39] That same day there is a ceremony at the Bogota Chamber of Commerce where the Court president mentions to the businesspeople the pilot that would be implemented starting in January of the coming year. In the first months of 2020 accounting for the period is done, including a public hearing as a new development. In both cases the system is mentioned briefly, focusing on its future functionalities and placing special emphasis on the idea that the system would complement,	Tweet from November 2019 announcing a future pilot related to the right to health **Corte Constitucional** @CConstitucional La Corte Constitucional le ha apostado este año a sacar adelante el proyecto de inteligencia artificial en la selección de tutela. La Corte está trabajando en un plan piloto con expedientes en los que se solicita la protección del derecho a la salud. Translate Tweet 2.4K views 0:09 / 0:50 8:30 PM · Nov 21, 2019 · Hootsuite Inc.

rather than replace, the activity of any human actor. Similarly, an interview with the Court president is published in the El Tiempo newspaper (Amat, 2020). While at that time the tool is referred to as Prometea, it now reflects a state of development more in line with reality. To the question on whether it was already in operation, the president responded:

> We are training the system. We have to train the machine and teach it to think. We are excited because I really believe that this will be a tool not only for the total purging of tutela selection, but which will also enable us to study, review and rule on many, many more tutelas.

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38   In particular, the commitments of the Chamber of Commerce reflected in the agreement are as follows: Participate in the project's organization, make contributions under this agreement, cooperate in structuring and/or implementation of any other activity that may be considered of mutual interest among the parties, assign any personnel it considers necessary to support the [Universidad del] Rosario in all that may be necessary for the activities to be implemented under this agreement, provide the support needed for the effective execution of the agreement, conduct follow up on the activities developed by the Rosario for the achievement of the objective of this agreement (Bogota Chamber of Commerce & Universidad del Rosario, 2019).

39   Available at: https://www.corteconstitucional.gov.co/noticia.php?Corte-Constitucional-recibe-reconocimientos-por-sus-sentencias-en-los-Premios-Excelencia-En-La-Justicia-2019-8793

...To PretorIA: Phase III (July 2020 – December 2020)

On June 30, 2020, results of the second phase are presented to the Full Chamber of the Constitutional Court. The Chamber decides on July 1st to move ahead with implementation. On July 27, PretorIA is presented publicly for the first time, in a rebroadcast via videoconference,[40] which was followed by the corresponding press release (Constitutional Court, 2020a).

Whereas the prior phase was for system development by IALAB, this one focuses on the Constitutional Court's appropriation of the system by receiving it and forming its own internal team with the capacity to receive the system and give it continuity.[41] As in the previous case, a memorandum of understanding among the same actors was produced, focusing on installation and implementation of PretorIA at the Court (Constitutional Court et al., 2020). The activities developed in this transfer process are found in the following table:

Table 6: Calendar of installation activities

Source: Constitutional Court.

Year	Month	Day	Duration (hours)	Objective
2020	Jul	25	1.30	Explain the keywords function in PretorIA
2020	Ago	11	1.30	Keywords identified based on the file sent by the Colombian team. Details of reviewed decisions and the learning curve
2020	Ago	19	2	Phase I: PretorIA source code
2020	Ago	21	1.30	Phase II: PretorIA source code
2020	Ago	31	2	Introduce the classifier code
2020	Sep	3	3	Phase III: preparation of regular expressions and construction of classification rules
2020	Sep	11	1.30	Construction of regular expressions
2020	Sep	16	1.30	Functions used for the classifier are explained
2020	Sep	18	1.30	Classification options for Judge decisions are presented
2020	Sep	28	2	Methodology for the construction of rules and best practices
2020	Sep	30	1.30	Explain criteria: Judge Decisions
2020	Oct	1	2	Explain criteria: excluded from health
2020	Oct	5	1.30	General review of criteria addressed
2020	Oct	7	1.30	Review of front-end source code
2020	Oct	9	1-2	General outline PretorIA deployment on servers. *Docker* containers

During the second half of 2020, the technical team recently formed at the Constitutional Court undertook a review of the documentation, source code and process methodologies developed by IALAB. They also

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[40]　　A short excerpt of the event can be found on the Constitutional Court's YouTube channel: https://www.youtube.com/watch?v=iBgjXKJoHIU

[41]　　The team was made up of two computer science experts with experience in artificial intelligence, and two professional data science statisticians.

managed integration with the entity's other systems and conducted more testing on the percentage of hits in classification (Constitutional Court, 2020c). For their part, the magistrates' offices analyzed what the best deployment would be for the first compasses in terms of authorized users and the corresponding permissions.

Although PretorIA was in its last phase of development, no deployment was projected with the current functionalities until 2021.

What is PretorIA? Snapshot of a system under development

PretorIA is a system that seeks to contribute to making the tutela selection process at the Colombian Constitutional court more efficient. To do this, it takes tutela decisions from the judges of instance and labels or classifies them according to pre-defined categories based on the Constitutional Court's expertise. The system's input data are texts written in Spanish and of a legal nature. PretorIA conducts pre-processing of the decisions with the goal of providing the human agent with organized information, on the assumption that this will reduce the time needed to decide whether or not a case is selected for its eventual review. This pre-processing translates into the following functions: 1) classification of cases under criteria pre-set by the Court; 2) file search for information of interest to the selection process; 3) automatic preparation of non-narrative summaries of the criteria (i.e. a list of the concurrent criteria in a given decision); 4) generation of statistical information.

PretorIA by type of system

PretorIA supports the tutela selection process, facilitating identification of the content in tutela decisions during that process; the result is the decision of which cases will be reviewed by the Constitutional Court. The following fact must be emphasized: the selection of tutelas and PretorIA refer to tutela case decisions and not to individuals or types of people. Furthermore, we have already observed that the system works on texts, and it produces information of two kinds: 1) characterization or categorization of these texts and 2) presentation of general statistical information on tutela decisions. In other words, PretorIA's goal is to provide human agents with information on the texts and their context to facilitate the agents' work and reduce execution time. With this in mind, PretorIA comes under the field of what is known as natural language processing, in a broad sense, as an interdisciplinary space for computational science, artificial intelligence and applied linguistics.

Tutela decisions and other procedural documents are communicative acts prepared in natural language, in this case Spanish. PretorIA handles natural language processing, a field of study focusing on understanding and processing by computers of input prepared in a natural language, either oral or written. It is one of those fields in computer sciences with which, in spite of perhaps being lesser known, we have more regular contact: certain spam detection systems in our e-mail account, the auto-complete function, some chatbots or conversational agents on the webpages of many private or public entities, and automatic text translation systems are some examples we interact with every day.

The importance of this field of knowledge stems from two points: 1) regular human communication takes place in natural languages; and 2) natural languages are radically different from formal languages, a family that includes the mathematical notation and programming languages involved in ordinary "communication" vehicles between humans and computers. This complexity is easily understood if we compare the elements comprising each type of language. Programming languages, which are usually presented in written form, have two elements: syntax, which refers to the correct order of the communication components, and semantics, which analyze meaning with the particularity of being unique; that is, depending solely on the components and their order of presentation.

Natural languages, on the other hand, have more complex versions of these, and more. Among the latter we can highlight morphology, which studies the smallest units of words affecting their meaning; and pragmatics, which focuses on how the same linguistic units, whether words or larger sets such as decisions, are used in different contexts, affecting their meaning. One of the applications of natural language processing whose evolution best helps us understand its complexities is text translation, which has improved from literal, practically useless word-for-word translations, to cases where subtleties are increasingly detected by computers.

With this in mind, we can list some of the functions for which natural language processing can be used. If we focus our attention on the relationship between oral and written forms of communication, we find speech recognition (from oral to written) and synthesis (from written to oral). If we think about the relationship between natural languages, we find automatic translation. Looking only at capturing the meaning of the act of communication, we can refer to natural language comprehension and the detection of feelings. Going a step further in communication by adding bi-directionality, we would be looking at natural language generation. Finally, we find functions focused on the processing of communicative acts for more efficient human work on them, such as text summaries, information recovery or text classification.

We can relate these natural language processing functions to those already mentioned for PretorIA: 1) searching files for information of interest for the selection process; 2) classification of cases under criteria pre-set by the Court; 3) automatic preparation of summaries of criteria; and 4) generation of statistical information. In this regard, we recall that the "summaries" refer not to a shorter generated text that includes the main ideas, but to a summarized presentation of the concurrent categories in the analyzed texts. In this sense, we are faced with one central function, the classification of texts with categories defined by human actors, and some functions related to the presentation of that classification to human actors: summaries, search results and statistics.

PretorIA's main function is text classification. On this point, we highlight that at this time the system is not machine learning since this classification is not done using supervised learning techniques.[42] Currently it is more like a rules-based classification. That is, as opposed to machine learning approaches, where the system is the one finding the functions that relate the input (the text) to the output (the label), in this approach the relationships are established by humans. In other words, it is not the machine finding the rules for classifying, which would be implicit, but rather the human team is the one first determining, via explicit programming and the use of keywords, syntactic structures and the relationships among these:

> Finding a criterion consists of several elements. It includes identifying certain patterns and certain relationships among the patterns and saying, "Aha! If this happens and so-and-so is also found and/ or such-and-such isn't found, then it falls within a criterion." And this way, let's say, when we talk about more precise, there are some expressions here and some functions, it's not an exact text with which we expect to make a match (Interview on PretorIA with the Secretary General and technical team of the Constitutional Court, personal correspondence, 2020).

This approach has its limitations, such as the need for a deep knowledge of the field of work (in this case, fundamental rights and the Colombian context), and it requires a lot of time, both in defining the classification rules and in testing them. In our case, there is no doubt that the field knowledge is housed at the

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42   In supervised learning, the type of system output is defined and requires human intervention for presenting the desired labels. In this sense, the system is focused not on pattern detection, but on the search for functions that relate input to output labels such that it can automatically label future input. These techniques are focused on improving knowledge of the relationships between input and output to be better able to predict future output values.

Constitutional Court as the highest court in the system for protecting fundamental rights. In terms of time and testing, at the time when this article was written (December 2020), the Court's team was about to define which categories would be finally put into production or not (Interview on PretorIA with the Secretary General and technical team of the Constitutional Court, personal correspondence, 2020).
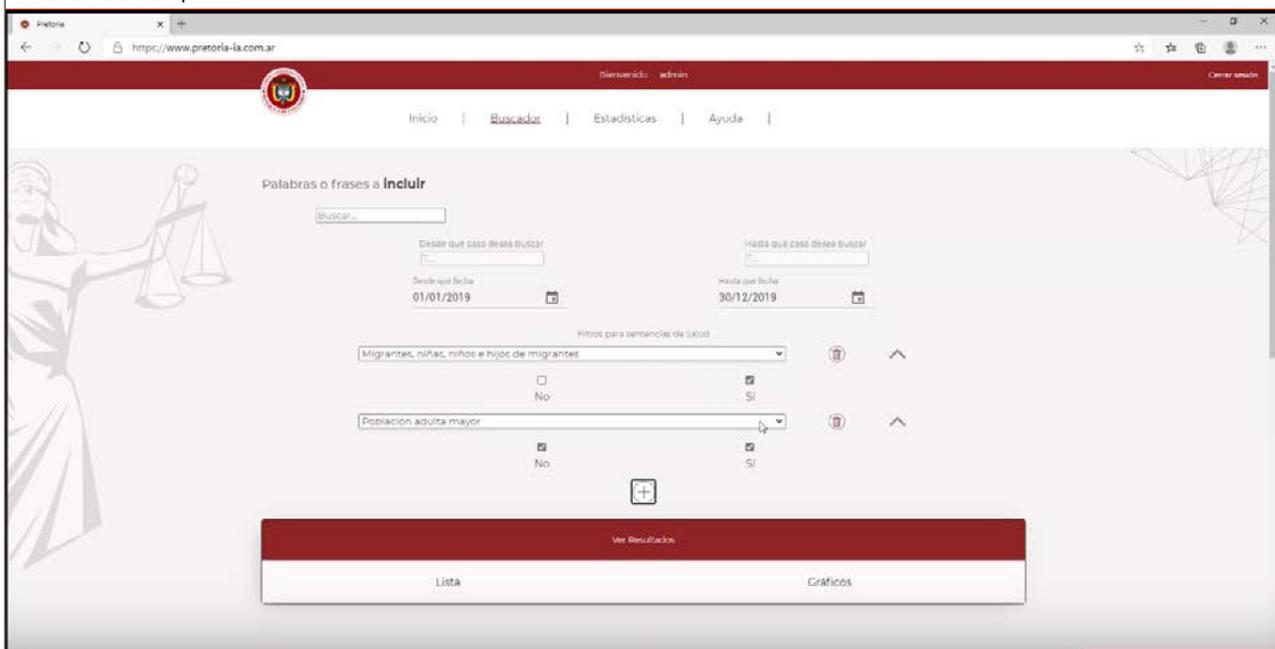
A closer look at PretorIA

PretorIA is a system. Underneath what we can see, behind the interface with which we interact as users (front end), there is a series of modules that relate to one another and with external systems to operate correctly. Before delving into this area, we begin with the front end, the user interface. In the presentation on July 27, 2020, we could see how the interface appeared in its web environment, with its own identity in terms of both name and colors. The following screenshots show the status at that point and how the different functions (labeling summary, search and statistics) are made available to users. While it's true that it is possible to make some changes, these will not be substantial in terms of the way users interact with the system:
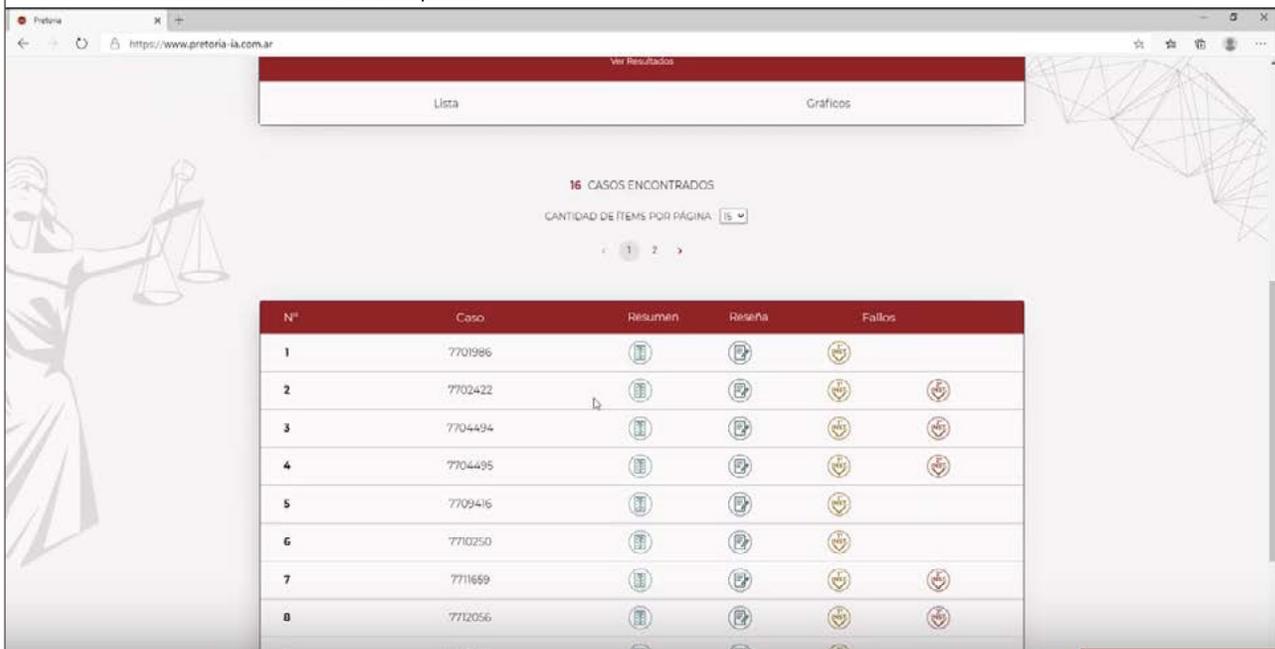
Table 7

Source: Constitutional Court YouTube channel.

Homepage de PretorIA a 27 de julio de 2020
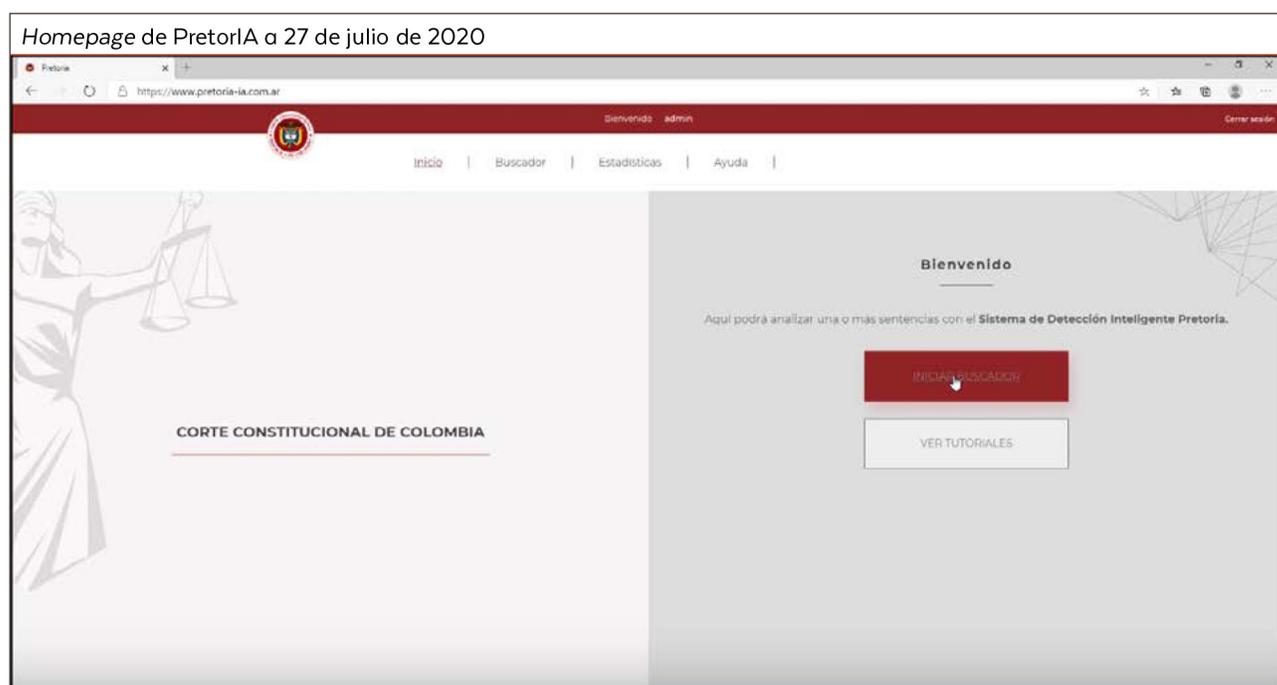
Interfaz de búsqueda

Presentación de los resultados de búsqueda

Modelo de Resumen I/II

Modelo de Resumen II/II

Modelo de estadística

What components are behind the interface? Currently PretorIA is made up of six modules (Interview on PretorIA with the Secretary General and technical team of the Constitutional Court, personal correspondence, 2020) whose interaction allows the system to operate. First, we find the integrator module responsible for retrieving the documents where the texts we request as a user from their sources are found. The texts are judicial decisions, which may be received by the Court in different forms and are not necessarily digitized.[43]

The second module is the extractor. As its name indicates, its role is to extract the text from the documents. The integrator obtains the document, in any format, where the texts are found, but these must in turn be obtained from the documents to be processed by the system. For its part, the loader (third module) registers the loading of this document and text and the parameters that will be taken to the classifier which, in turn, performs the system's central function: labeling these texts in accordance with the categories set up by the human team. The fifth piece of PretorIA is the database where information produced by the classifier will be sent. Finally we find the gateway, which acts as a management module connecting all the modules and enabling their joint operation.

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43   Roughly speaking, we can point to three sources from which the integrator will receive the decisions, depending on how they are sent to the Constitutional Court. First we find those decisions arriving physically, on paper, which need to digitized using character recognition. Second, some Colombian courts and tribunals have a handling system known as Justice XXI Proceedings Management System (Sistema de Gestión de Procesos Justicia XXI, TYBA) which includes a registration system for tutela proceeding acts that enables them to be sent to the Constitutional Court. Finally, in July 2020 the Constitutional Court deployed an ad hoc electronic tutela referral system at those court offices that do not have TYBA. This system provides a rapid solution in the context of the Covid-19 pandemic, which has complicated physical delivery. In this sense, since late July 2020, paper delivery is only accepted in exceptional cases. To organize this process, the Superior Council of the Judiciary sent out Circular PCSJC20-29 which included operating manuals for the different systems, technical support channels and the expectation of holding training for their use.

The modules are available in what is called service-oriented architecture. Briefly, each of the modules has its own autonomous implementation logic, independent of the other modules; they are all ultimately integrated by the gateway. The choice of this kind of architecture allows for the future development of new modules for other services that may be of interest to digitize, as well as their ease of integration into PretorIA.

The integration of PretorIA into the tutela selection process

We can recall that the defined problem is the overload of the tutela selection process stemming from two factors: 1) the increase in the number of tutelas filed and 2) the fact that the institution must consider all opinions to decide which will eventually be reviewed. Besides that, the functions mentioned (text labeling, presentations of labeling summaries, searches by label and by words, and statistics) do not create new information; rather, they organize and pre-process existing information for presentation to the human agent.

To make a decision, the human will have the information provided by the docket in the form used by such judicial documents, but also, thanks to PretorIA, the classification of those documents as a product of the automatic labeling based on the categories that, using its expertise, the Constitutional Court has determined are most relevant. Additionally, the person will have information on the context stemming from the statistics developed on the labeling of the set of decisions.

The hypothesis for PretorIA's success is that, by knowing more information from tutela cases, the human agent will be able to perform his or her job in less time. This would be because the tasks that the human agent must perform, from receiving the docket to making decisions, include the search for these categories, which, given the length of the texts, requires a moderate to high execution time. Thus, the increase in efficiency provided by PretorIA would be due to the reduction in time needed by the human agent for making decisions thanks to the automation of labeling and statistical sampling.

Among the various stages of the selection process, PretorIA "assists in the tutela preselection stage, via the categorization of and search for information in the millions of pages the Court must analyze. This search is done using an interface that allows for different combinations of search criteria" (Constitutional Court, 2020c).
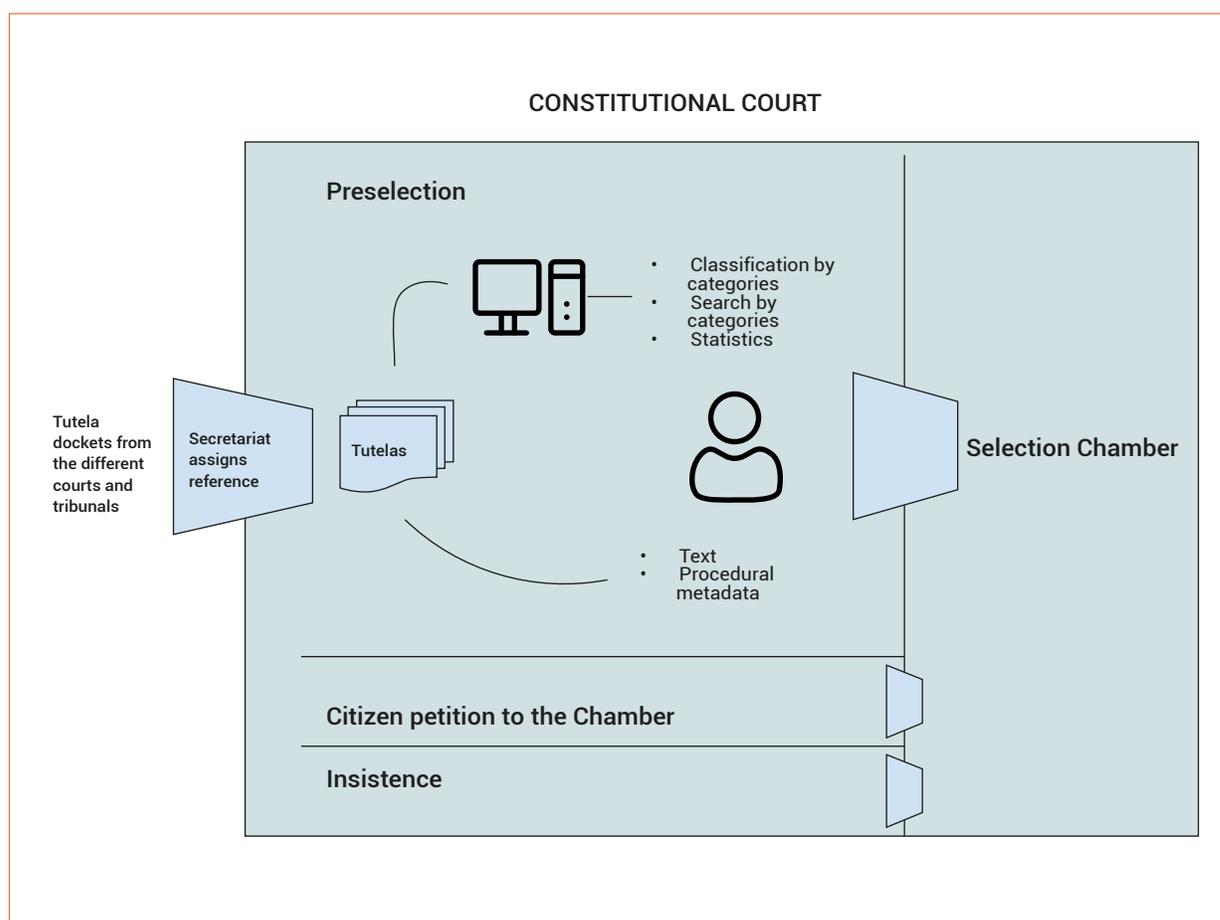
A separate question is whether the deployment of PretorIA will affect other aspects of the selection process as defined, including if it will involve a substantive change in the process. This will be subject to consideration following the start of production and evaluation of results. However, we already know that on this point the Constitutional Court is not planning to eliminate the role of the law student interns (judicantes) or to reduce their numbers (Interview on PretorIA with the Secretary General and technical team of the Constitutional Court, personal correspondence, 2020). We also know that PretorIA will contribute to a reduction in the time needed to process each docket in preselection. If the structure of the selection process as we know it is maintained, other variables that will have to be considered to maximize the transmission of the system's efficiency to the process itself include the range of tutelas to be analyzed by the Selection Chamber in each period and in the same period, which currently is one month.

Measuring PretorIA: efficacy and efficiency

If we recall the problem and its defining factors—1) the number of writs of tutela filed in a period of time; 2) the time needed to understand the content of the tutela dockets as a precondition for deciding on whether or not they are selected for review—we can see that the Constitutional Court can only act directly on the latter. Therefore, it is necessary to measure that time. Relating this to the scenarios recently presented, indicators could be introduced both at the beginning of the tutela selection process and at the end: in the first case, by measuring, in relation to the first human agent working on processing the dockets, if this

processing is done more quickly with or without the system. Producing this measurement would depend on whether the introduction of PretorIA affects the process as it is formalized, which we have seen is a question for the future. Otherwise, for example, one could measure whether the production of schematic summaries by the law student interns requires more or less time using the system. In terms of measurement in the final stage of tutela selection, time could be used as an independent variable, as each Selection Chamber has a one-month operational deadline, measuring the number of dockets with respect to which their selection or non-selection has been decided and whether that number increases with the use of PretorIA.

On the other hand, the question of efficacy involves whether or not PretorIA correctly detects the presence of the categories pre-defined by the Constitutional Court. As a rule-based classification system, efficacy will be linked to constant review by the institution, with new processes for manual labeling:

> So, this is not a process where we simply label these two thousand five hundred and then head out to production; rather, with a certain periodicity we will have to label another group of decisions with which we could compare how PretorIA is classifying and how the human is classifying. So this is one of those things that we will always have to do as long as we use this technique (Interview on PretorIA with the Secretary General and technical team of the Constitutional Court, personal correspondence, 2020).

This being the case, we have three intrinsically linked processes: definition of labels, manual labeling and measurement of success. The final element is the relationship between the labeling done by PretorIA and manual labeling; its result provides feedback to the human team for fine tuning the definition of labels or even, eventually, discarding some. For its part, manual labeling will have to be done periodically both to measure success and for updating the labels, which are not necessarily static since they are connected to the Court's needs based on its expertise and therefore have a tendency to evolve. Thus, the measurement of efficacy is necessarily incorporated into the system's regular operation.

Efficiency, on the other hand, does not seem to pose any problems: this kind of text processing task, assuming it is performed correctly, is in any case speedier if done by a computer than by a human agent, and the difference will increase the greater the volume of text to be processed. The difference in results from potentially different versions of the system or on different teams is a separate question. Although we will find this out as the project progresses, it is likely that any version will involve an improvement in the efficiency of tutela selection compared to the totally manual process.

PretorIA is not Prometea

PretorIA's development has been notable for its confusion with Prometea. As we have already seen, this is related to the way in which the proof of concept—carried out between late 2018 and early 2019—was presented. The confusion of the Argentinean system already developed and in operation, with the intention of resolving specific work overload problems in the tutela selection process at the Constitutional Court led to errors regarding the status of development in Colombia and on the system's components and functions.

We can differentiate between the processes in which Prometea and PretorIA were deployed, as well as the product sought by each process: the Argentinean process produces a text, whereas that of the tutela dockets just supports the selection process, due to its potential for best identifying possible cases for selection. This stems from a radical difference in legal-procedural terms. The Public Prosecutor's job is to propose a resolution and thus comes at the final part of the process. The Selection Chamber acts prior to the analysis that precedes the resolution which, in any case, is prepared by a different body: the Review Chamber or the Plenary.

On the other hand, in terms of each system's relationship to the user, PretorIA presents a desktop web interface, while Prometea is based on a conversational interface, either written or oral, which could be presented on various kinds of devices.

In terms of data, while in both cases these are text-based, the Colombian system houses the databases, at least, in the same body in which the system is deployed. This could not be otherwise since the Constitutional Court is where the dockets have to be sent under the process in its pre-PretorIA version, too. By contrast, the Prometea databases are located not at the Public Prosecutor's Office headquarters, but in a blockchain structure.

Finally, in terms of functionality, PretorIA offers different functions from those of Prometea in its aspect as an assistant. Furthermore, the main functionality of the Argentinean system, the predictive function, is totally abandoned in the Colombian system.

Ultimately, one could imagine that PretorIA is an adaptation of Prometea, given that they share a development team, the communication function is shared, and the project's proof of concept and initiative were inspired by the Argentinean system. But the Constitutional Court's system, in its current state, in terms of both its functionality and global operation, as well as how it relates to the human agent, has little in common with Prometea. There is also a substantial difference between the processes in which they are deployed, and the effects they seek to produce, for each system.

Critical evaluation of the case

PretorIA from the perspective of personal data protection

PretorIA's work is limited to the stage of selecting tutela dockets for their eventual review, as part of the Constitutional Court's jurisdictional role. And while the review of tutelas is not set up as a third instance in relation to the homonymous action, it is situated in its procedural iter. In this sense, the texts processed by the system are those relating to tutela proceedings and, in particular, the judicial decisions of the judges of first instance. This leads to a series of important consequences:

- The processing of personal data is that which corresponds to the Constitutional Court's ordinary jurisdictional role.
- The dockets come from referral by the courts and tribunals before which the tutela actions are filed in first and second instance.
- The deployment of PretorIA does not involve a change in the Constitutional Court's access to and processing of personal data gathered in the process. Under its non-automated operation, the selection of tutela dockets also involves referral of dockets and analysis by the Court.
- Moreover, the relevant part of the text for docket selection does not clearly seem to contain personal data. The name of the parties or others concerned is irrelevant to this selection. With that in mind, the names do not seem relevant to PretorIA either; the system should, theoretically, be able to perform its function on the texts equally well with these names edited out.

Thus, if we limit ourselves to the part of the text that we assume is relevant for the system's operation, we find no personal data. Nevertheless, we must remember that the personal information used in the heart of judicial proceedings by the jurisdictional bodies themselves is exempt from provisions regarding consent. Law 1581 of 2012 so indicates in the following provisions:

Art. 6.3). - Processing of sensitive data is prohibited, except when:

[...] d) Processing refers to data that are necessary for the recognition, exercise or defense of a right in a judicial proceeding.[44]
Art. 10.a). - The data subject will not be necessary when involving:
a) Information required by a public or administrative entity in the conduct of its legal functions or by court order.
Art. 13.b). - The information meeting the conditions established in the present law can be provided to the following individuals:
b) To public or administrative entities in the conduct of their legal functions or by court order.

Consistent with the provisions of the Habeas Data Act, the procedural requirements establish various provisions referring to the obligation to provide relevant procedural information with no need to seek authorization. Examples of this include data required formally in lawsuits, which include the parties' personal data, or their obligations during the proceeding. This should not prevent the parties from being entitled to know that their data are held by the Constitutional Court for the tutela docket selection process, but that information is guaranteed by the following:

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44   This exception also applies regarding the prohibition on sharing data with third countries in virtue of Article 26(f) of the same standard.

- Referral to the Constitutional Court is always done after conclusion by the second instance, or the first if there was no appeal.
- The foregoing, which is legally established, is also indicated in the decisions of first instance.
- Both the system for consulting proceedings in the courts and tribunals of first instance and that of the Constitutional Court allow consultation of the status of a proceeding.
- The Constitutional Court publishes which dockets will be analyzed by the Selection Chamber and, following this, publishes which have been selected and by which Review Chamber they will be analyzed to decide on the substance.

That is, no possible impact on rights is found in terms of protecting personal data under PretorIA's operation because it is situated within the action's ordinary procedural iter; personal data are not relevant in terms of selection for review; and, in any case, no changes are produced in this sense in relation to the process preceding system deployment.

The presence of information in the cases characterizing the parties, such as age, sex or identification with a determined ethnic group, is of interest, however. This characterization of the individuals is relevant for establishing the concurrence of situations justifying selection for review based on subjective criteria. But the importance of this personal information is limited to two questions:

- The need to know if individuals subject to special protection by the legal system appear.
- For the purposes of determining the selection of a docket for its review, and under no circumstances to determine a negative result in terms of their rights.

In light of the above, we can say that PretorIA's work does not come under a habeas data scenario per se, in the strict sense. We are not looking at a structured processing of personal data, since the information of this nature is incidental and not the center of the system's operations and given that this kind of information is irrelevant for the procedure that selects tutela dockets for their review.

PretorIA from the perspective of transparency

Law 1712 of 2014, on transparency and access to public information, establishes as a general rule the disclosure of information held by government entities. Unless expressly waived, all information in the hands of public entities is public; and those exceptional cases shall require a detailed justification that explicitly weighs impact on the fundamental right to access against the benefits or rights whose protection would justify the exception.

The Constitutional Court has developed practices of increased transparency on the subject: selection hearings, which are also recorded and published on their YouTube channel. In these hearings, much more information is provided than legally required. Notwithstanding the above, as we have already mentioned, the tutela selection process has some limitations: the Selection Chamber's deliberations are confidential and the orders, as documentation of this selection, require only summary grounds for the decisions made.

In this context, legislation, practice and statements by the Constitutional Court[45] lead one to believe that there will be greater dissemination of PretorIA's operations when the tool is fully deployed. The Court has stated that in due time it will publish PretorIA's source code,[46] as well as the tool's tutorials and manuals.[47]

In light of the requirement for passive transparency, every person has the right to solicit public information from the Constitutional Court in the exercise of two fundamental rights: the right to petition, whose regulation is developed in the Code of Administrative Procedure and the Contentious-Administrative Code, and the right of access to public information, set out in Law 1712 of 2014. Via this route all information on PretorIA's general operations would be accessible on the following grounds:

- The Constitutional Court is one of the entities bound by obligation by the regulation on access to public information.[48]
- In a positive sense, information on system operation comes under the minimal information regarding services, procedures and operations.[49]

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45   It has always been considered that this should be absolutely transparent. It is, in fact, it would have to continue operating and, shall we say, also come together in what is the current handling of the Selection Chamber. The Selection Chamber is absolutely open [...] (Interview on PretorIA with the Secretary General and technical team of the Constitutional Court, personal correspondence, 2020).

46   In particular, regarding the source code the Constitutional Court stated: The PretorIA computing tool is effectively open source. However, since it is still in its implementation and adjustment process, the tool provider still has not delivered the code, due to which it is not yet available (Constitutional Court, 2020b).

47   On this point, the Constitutional Court responded: As regards the series of tutorials which were referred to in the press conference, it must likewise be said that since the implementation of the PretorIA tool is subject to modifications and adjustments, and that furthermore it has not yet reached production stage, therefore the corresponding tutorials will only be available when the last stage is reached, given the adjustments involved in the production of a technological tool of this complexity, and because these must reflect as much as possible all its technological uses (Constitutional Court, 2020b).

48   Law 1712 of 2014. Article 5.a) The provisions of this law shall be applicable to the following persons as entities bound by obligation: a) Any public entity, including those belonging to all Branches of Public Authority, at all levels of state structure, central or decentralized by services or by territory, in national, departmental, municipal and district orders. [...]

49   PretorIA's operation could be understood as coming under the three first points of Article 11 of Law 1712 of 2014: All entities bound by obligation must proactively publish the following minimum required information: a) Relevant details on any service it provides directly to the public, including regulations, forms and service protocols; b) All information corresponding to transactions that are handled by the entity, including related legislation, the procedure, associated costs and the various formats or forms required; c) A description of the procedures that are followed for making decisions in the different areas. [...]

- In a negative sense, this information is difficult to match up with the access exceptions[50] unless it is alleged to be covered by the confidentiality of Selection Chamber deliberations.
- Faced with a hypothetical response denying access to all or part of the information, the holders of the indicated rights have recourse to the tutela action, as well as the reconsideration appeal before the Court itself.

In summary, from a strictly legislative perspective, PretorIA does not seem to have the ability to make the tutela selection process any more opaque. This conclusion is further strengthened by the Constitutional Court's practices around increasing disclosure of the process and its activities in general.[51]

Nonetheless, transparency on PretorIA's detailed operations has the potential to bridge the gap between the selection process and citizens, and it also opens a certain window into the Court's legal thinking, which is reflected in the definition of the categories used by the system. Furthermore, taking into account the interest arising from the use of technology for conducting public administration, transparency is vital in contributing to the public legitimacy of the use of these technologies in the justice sector.

Potential impact on other rights

We must start with the substantial difference between PretorIA and other kinds of systems, such as risk prediction, which are those that come to mind when we speak of risks associated with the deployment of digital technologies in justice. First, PretorIA works not on people or individuals, but on the texts of decisions. And within the information contained in these text, the identity of the parties is incidental. This holds even in the broader process in which it is deployed, tutela selection, in which the work is performed on the case. Not even in the subjective criteria, commented above, is individualization important; rather, it is membership in a group that counts. Extending the comparative example, in risk prediction systems, individuals are the focus of how the system operates to make predictions. By contrast, PretorIA provides no new information, instead organizing already existing information in the decisions, using categories defined by human agents in a labeling process that, if not done by the system, would be done to a greater or lesser degree by a human.

In other words, PretorIA proposes to automate some prior processes involving organization of information. The case is different for risk prediction systems, where new information is provided: a kind of risk index. And while the construction of this risk index depends on prior information which the human

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50   Being provided for in Articles 18, Exceptions for harm to natural or legal persons, and 19, Exception for harm to public interests, the only preliminarily relevant ones are those provided for in points (a), (e) and (f). The first (a), National defense and security, is relevant insofar as practice has demonstrated its broad use to deny access to public information. The exception of point (e), Due process and the equality of parties in judicial proceedings, could be alleged by the procedural insertion of the tutela selection, but we have already seen that in review, the conflict between the parties is not central and, at any rate, the selection comes chronologically before a substantive analysis of the case is performed, which would happen in review. Finally, the exception in point (f), Effective administration of justice, could also be alleged by the insertion in the current Constitutional Court. However, it would be the responsibility of the high court to establish the causal relationship between the knowledge of PretorIA's operation and the specific impact or impacts on the effective administration of justice.

51   The Court is immersed in a process to improve its webpage, oriented to providing more information that is also more understandable. In addition to having activated a survey for users to give their opinions, it has been deploying actions such as the creation of a statistics microsite (https://www.corteconstitucional.gov.co/lacorte/estadisticas.php) or one with centralized information on the high court's activities related to pandemic legislation (https://www.corteconstitucional.gov.co/micrositios/estado-de-emergencia/).

agent also has, the system's processing to produce the index is not easily grasped by the people who make the final decision.

Despite the system still being in development stage, the information we have, including the very nature and goal of the selection process, does not at this time show direct impact on other rights. First, because the specific process of selecting tutelas is not susceptible to affecting subjective rights. The legal system is clear in indicating that there is no right to have a tutela docket reviewed by the Constitutional Court. Furthermore, before arriving at that institution, the parties must have had access to a second hearing and other guarantees of the right to due process. It can be alleged that the decision resulting from the review conducted by the Constitutional Court could change the sense of that offered in first or second instance, as applicable, thus affecting the rights of one of the parties. However, as in the previous case, this would be an effect not of the selection but of the review itself.

Notwithstanding the above, the review of decisions by the Constitutional Court elicits special interest in society as a whole given its potential impact on different people who are in similar de facto or de juris situations. These *inter comunis*[52] effects, which can be present in some reviews, highlight an impact that transcends the parties. Thus, it will be important to follow up on how the deployment of PretorIA takes shape and how it interacts with the different human agents involved, such that the different supervision and security mechanisms—whether these come from the technical team, through monitoring of the hit rate, or by the magistrate offices themselves in the case-by-case preselection, via daily work—mitigate possible system defects.

Critical review of the development process and its disclosure

We have already seen that the development process is turning out to be long but thought out. We have observed a preparatory phase through late 2019; an external development phase up to July 2020; and a phase of receipt and appropriation by the Constitutional Court, which will not deploy the system until it has been fully appropriated. And if we stick to that structure, its publicity has been reasonable: in January 2019 the completed proof of concept was commented on; in January 2020 account was given of advances in development; and in July 2020 a public event was held where PretorIA's current status at the time was demonstrated, along with its functions and how these were made available to users. The Constitutional Court decided not to make larger public statements, with the exception of two interviews and the appearance of the Court President's office in late 2019 at the Bogota Chamber of Commerce.

However, different actors in academic and civil society spheres have pointed out deficiencies in the transparency of the process. On this point there is a key piece of information: the pre-existence of the Prometea system. It is with this system that the proof of concept was conducted in late 2018 and early 2019. At it is at that point in time that we can frame the problem: in the proof of concept an already existing system was shown with its interface and functions. It was that interface that was visually received by the public and its functions were the ones reflected in the different media releases seen above. In other words, there was an Argentinean system used in an initial approach to the Court's problem; what was perceived was a system for the Court with its functions already defined. In the end, the dissonance between what there really was at

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52   The Constitutional Court has indicated that the inter comunis effects can be defined as those effects of a tutela decision which, exceptionally, is extended to specific situations of people who, even when they did not seek constitutional protection, are equally affected by the de facto o de juris situation that provoked it, product of the actions taken by the same authority or individual, grounded in the need to give equal and uniform treatment to all members of the same community, ensuring the effective enjoyment of their fundamental rights. (Constitutional Court, 2016).

the high court and what was appearing publicly is what provoked a suspicion reflected in questions such as: how and why have we ended up with Prometea? Why these functions and components?

And the narrative sustained this confusion by talking about Prometea in Argentina and Prometea in Colombia. We have seen above that Prometea and PretorIA are different systems. In late 2019, a development began that led to the Constitutional Court's system, which is substantively distinct from Prometea. It is true that the latter is the inspiration, and its development team contributed their experience to the development of PretorIA. We can affirm that there is a Prometea Colombia in early 2020, when accounts are given and the stage of development is referred to by that name; but this begs a question of inertia and at any rate is specific to that moment. With good reason it is the Court itself that, according to how the system takes shape, christens it PretorIA, thus reflecting its distinctive personal identity. And we point out that it is a unique development, not a modification or adaptation, strictly speaking, of the Argentinean system, thanks to the radical differences in context, interface, components, functions and operation.

However, the confusion of attributing characteristics of Prometea to PretorIA continues. If we look at information published by IALAB, then developer of PretorIA, we will see divergences in communications about it versus what is highlighted by the Constitutional Court. For example, in an infographic published on its website,[53] the Argentinean laboratory speaks of *"supervised machine learning."* Similarly, regarding results, it mentions that PretorIA can "read," detect, predict and prepare summaries.

As we saw in the section on What is PretorIA?, it neither currently uses machine learning techniques nor makes predictions. These are attributes of Prometea. This concept of prediction is also observed on the page corresponding to IALAB's work at the Constitutional Court,[54] where the following is mentioned: PretorIA was capable of reading, analyzing, detecting and suggesting 32 priority cases from among 2016 scanned decisions of the Court in less than 2 minutes, something that for a human would have taken 96 working days. PretorIA does not suggest cases; the point just mentioned was carried over[55] from the proof of concept with Prometea in late 2018. Of all the confusing information, this point, on the system's functionality for "predicting" or "suggesting priority cases"—in effect making its own selection—is undoubtedly the most problematic. It implies a significant discrepancy between the vision of system contributing to the work of a human agent, which is PretorIA, and the vision of one that can replace the human agent in performing the decision-making activity.

53　https://ialab.com.ar/wp-content/uploads/2020/08/UBA-e-IALAB-presentan-a-PretorIA.-Infografia.pdf

54　https://ialab.com.ar/portfolio-items/maximo-tribunal-judicial-de-colombia/

55　It is likely that this page was originally a publication on the proof of concept and the only the name has been changed from Prometea to PretorIA in a later edit of the publication. First, because the embedded video is of the proof of concept presentation, many months before development work began on PretorIA. Moreover, the specific data shown on the page are exactly those we saw reflected in the media releases on that proof of concept. See Footnote 34.

Conclusions

The PretorIA case elicited much interest. PretorIA is a system using artificial intelligence, spearheaded by Colombia's Constitutional Court to address some specific tasks within its process for selecting tutela cases to establish constitutional case law in the area of fundamental rights. This explains the reaction of some actors when they realized that an AI system had been installed at that institution. As we have seen, the perception was justified, but it did not correspond to the reality of the system's substantive development.

This leads to a first conclusion: these developments must be accompanied by a good communications strategy. The communication must include information about the system, how it operates and, especially, how far along it is in development. This is not a mere formality. PretorIA's history and how it is even now being confused with Prometea offers proof: the way in which the process was presented to the public generated a lot of confusion. The finished image from late 2018 and nearly all of 2019 of PretorIA—of that version of Prometea—stands in stark contrast to the initiative's state of development in late 2020. The enthusiasm, veering toward bombast, accompanying public communications on the deployment of digital technologies is uninformative and leads to false expectations and confusion.

PretorIA's development as a process shows at least two benefits. First, although the Constitutional Court does not do programming development, it set up an expert team with total mastery of the field and defined the system's functionalities and interface according to its own needs. An unequivocal example of this is the little to no coincidence between PretorIA and Prometea in those terms. In our opinion, this is the factor that allows us to declare that PretorIA is not a strict adaptation, but rather its own system. Second, the Court is accompanying development with creating technical abilities. They are not receiving a tool; they are making it their own. It has set up its own technical team of four people with expertise in artificial intelligence and data science. And above all, it is not going to deploy the system until that team has a full understanding of the system and even makes, internally, the adaptations and changes it believes are required. The capacity building and product appropriation are radically important for three reasons: 1) they make it possible to understand the system's real operation, what it does and doesn't do; 2) they offer sustainability to the system and autonomy to the Court, contributing to avoiding what's known as vendor lock-in;[56] and 3) they facilitate the system's scalability with the development of new modules and services. The decision for service-oriented architecture mentioned above is important given the last two points.

This brings us to a third block, What is PretorIA and what does it do in the tutela selection process. The functional core is easy to understand: labelling decisions, i.e. detecting the concurrence of certain situations or circumstances pre-determined by the human agent. In this sense, it automates a part of the activities, of a preparatory or information processing nature, that this agent performs, freeing up time for everything else. In other words, the human retains decision-making on the preselection but now based on the information that particular pre-defined circumstances or situations appear in the case, instead of on the raw text. In this sense, as we have analyzed, PretorIA has the potential to contribute to the efficiency and transparency of the selection process. On this point and with the announced functionality, we do not detect any tangible risks to individual rights. This does not preclude following up on its operation when it goes live. The commitments to transparency announced by the court regarding PretorIA in general will make this job easier.

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56   This phenomenon occurs when dependence on the provider develops, making it nearly impossible to switch to another. In addition to its own capacities on which we are commenting, another factor is found in the development practices that were used. That is, even you have your own abilities, some development practices and dependency on certain software or hardware may contribute to the impossibility of separating from the provider.

The truth is, today's PretorIA is, in context, a modest initiative. What warrants attention is that the process promoted by the Colombian Constitutional Court is its own independent process, focused on resolving specific problems, oriented to capacity building and the incorporation of digital technologies for performing their duties. We see it as a great first step on a longer and more interesting pathway that we will monitor closely. What will PretorIA be or become tomorrow?

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