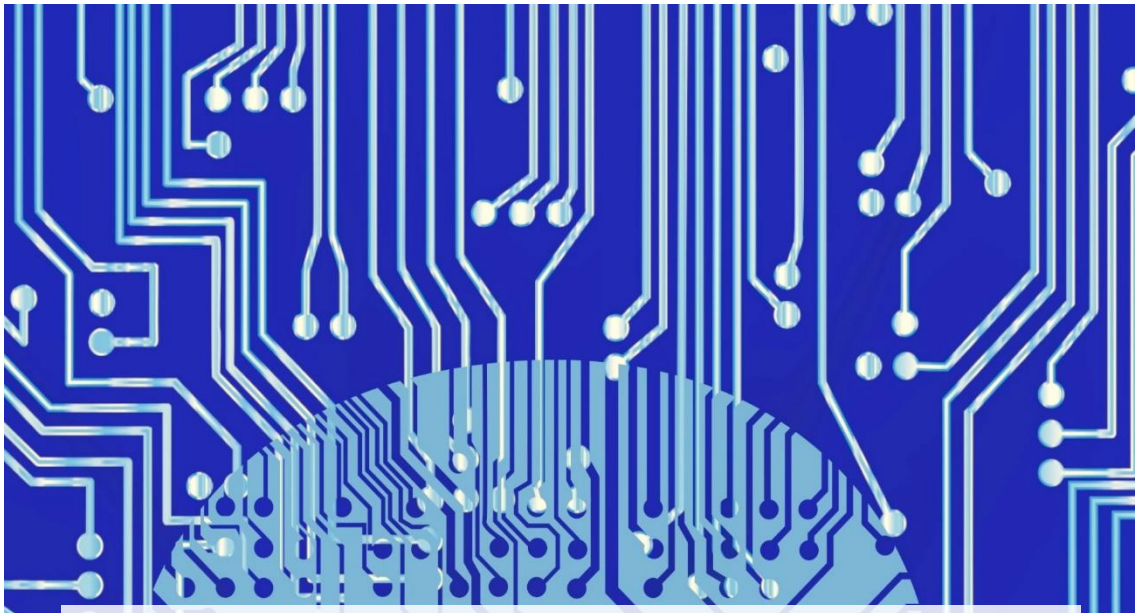
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Corresponding author. E-mail address: sescob@stanford.edu (S.A. Escobar Repullo)
Encina Hall, C428, Stanford, CA (US)

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Artificial Intelligence and Access to Justice in Chile: Evaluating Its Potential Role in Conciliation Procedures

Intelligenza artificiale e accesso alla giustizia in Cile: valutazione del suo potenziale ruolo nelle procedure di conciliazione

SERGIO ANDRÉS ESCOBAR REPULLO
Master in Laws in the Law, Science & Technology program
Stanford University
J.D./LLB equivalent
Pontificia Universidad Católica de Chile

Abstract

This paper examines how Artificial Intelligence could enhance access to justice in Chile by empirically analyzing environmental damage claims to identify procedural inefficiencies – particularly the excessively long and often unsuccessful conciliation phase – and, building on these findings, proposes targeted AI-based judicial-outcome prediction tools to support more efficient negotiations. Moreover, it addresses the problem of cultural-bias risks by advocating for regionally trained models capable of accurately reflecting Chile's legal framework, institutional context, and judicial practices.

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Abstract
Questo articolo esamina come l'Intelligenza Artificiale potrebbe migliorare l'accesso alla giustizia in Cile attraverso un'analisi empirica delle azioni per danno ambientale, volta a individuare le inefficienze procedurali – in particolare la fase di conciliazione eccessivamente lunga e spesso infruttuosa – e, sulla base di tali risultati, propone strumenti mirati di previsione degli esiti giudiziari basati sull'IA per supportare negoziazioni più efficienti. Inoltre, affronta il problema dei rischi di bias culturale, sostenendo l'adozione di modelli addestrati a livello regionale, in grado di riflettere accuratamente il quadro giuridico cileno, il contesto istituzionale e le prassi giudiziarie.

Keywords: Access to justice; conciliation; artificial intelligence

Summary: 1. Introduction. – 2. The problem of access to justice in Chie: An empirical analysis of environmental damage claims proceedings in Chile. – 2.1. Methodology. – 2.2. Key findings. – 3. Potential use of AI to promote access to justice. – 3.1. The potential role of AI-based judicial-outcome prediction in improving the efficiency of conciliation phases. – 3.2. Practical considerations in the development and application of an AI-based judicial-outcome prediction tool. – 3.3. Cultural-bias risks and the importance of adopting a regional LLM. – 4. Conclusions.

1. Introduction.

Access to justice has been considered as the most basic human right, as it serves as the gateway to the protection and enforcement of all other rights through courts.[1] However, for a long time, the relevant literature has argued that there are serious barriers preventing people from effectively accessing this right.[2]

Chile is no exception to this issue. According to studies conducted by the Chilean Secretary of Justice, nearly 50% of people who face legal problems don't go to court,[3] even though this right is expressly recognized in the Chilean Constitution.[4]

In this line, this paper will address the question of 'How can the use of Artificial Intelligence ("AI") contribute to promoting access to justice in Chile, given the current inefficiencies in judicial proceedings?'.

To address this question, the study will perform an empirical study of environmental damage claims in Chile, seeking to determine whether access to

[1] M Cappelletti, B Garth, 'Access to Justice: The Newest Wave in the Worldwide Movement to Make Rights Effective' (1978) 27 Buff L Rev 181.
[2] M Galanter, 'Why the "Haves" Come Out Ahead: Speculations on the Limits of Legal Change' (1974) 9 Law & Socy Rev 95.
[3] Ministerio de Justicia y Derechos Humanos, *Diagnóstico sobre el acceso a la justicia en Chile* (2021) 57.
[4] Constitución Política de la República de Chile, art 19: 'The Constitution guarantees to all persons: Equal protection of the law in the exercise of their rights. Every person has the right to legal defense in the manner established by law, and no authority or individual may impede, restrict, or disrupt the proper intervention of legal counsel if required (…). The law shall provide the means to provide legal advice and defense to those who cannot provide it themselves'.

justice is being adequately safeguarded in terms of procedural efficiency.[5] This analysis seeks to identify which stages of judicial proceedings are underperforming or generating the greatest delays. By studying the way each procedural phase is working, the study aims to detect where the need for technological innovation – particularly the integration of AI – is most pressing.

Building on these empirical findings, the research will then explore the potential role of AI in enhancing access to justice in Chile. Special attention will be given to the conciliation phase, which, according to the study conducted, has a significant influence on the overall duration and effectiveness of the proceedings. Based on the specific inefficiencies identified, the study will propose targeted an AI-driven solutions aimed at improving the performance of the proceeding, thereby contributing to a more efficient and accessible judicial system.

2. The problem of access to justice in Chile: An empirical analysis of environmental damage claims proceedings in Chile.

2.1. Methodology.

To determine whether the inefficiency of environmental damage claim proceedings constitutes a barrier to access to justice, this research will conduct an empirical analysis of the different phases of the procedure. Similar analytical approaches have been applied in prior research on judicial efficiency. For example, Joel B. Grossman and others assessed the pace of civil litigation in U.S. courts by breaking cases into distinct procedural phases.[6] In the case of this study, the objective is to identify which stages are not functioning effectively and to assess the potential role that AI could play in improving their performance.

The environmental damage claim proceeding has been selected as the focus of this study for several reasons: (i) it is a relatively modern procedure within the Chilean judicial framework; (ii) conciliation phases within these cases often extend considerably and, in many instances, fail to produce satisfactory agreements; and (iii) these disputes frequently involve structural disparities in legal resources–e.g., cases in which individual claimants confront large corporate defendants. Taken together, these characteristics make this type of proceeding particularly suitable for illustrating systemic obstacles to access to justice, while also providing a fertile context for exploring how AI-driven tools might help streamline procedural stages.

For this purpose, the target population of the quantitative analysis consists of all environmental damage claims filed in Chile before the Second Environmental Court up to September 2024, which corresponds to 79 cases. Although the sampling strategy seeks to capture the entire population of cases

[5] For the purposes of this study, the concept of access to justice is understood not only as the right to access to courts, but also as the right to have an efficient trial that ensures the prompt resolution of disputes.

[6] JB Grossman and others, 'Measuring the Pace of Litigation in Federal and State Trial Courts' (1981) 65 Judicature 86.

adjudicated by that tribunal, limitations in data access and retrieval prevent full coverage – for example, some web links to specific case files are inactive, making it impossible to access their records. The data for this study is available on the Court's official website, where comprehensive information on each case is available, from the initial filing through to the final resolution.

Through a quantitative assessment of the cases included in the sample, this study will measure the duration of different stages of the proceeding. The length will be treated as the number of days between two procedural events that mark the beginning and end of each phase.

2.2. Key findings.

From this analysis, we found that a major source of inefficiency in Chilean environmental damage claims proceedings is the length of the conciliation phase, which frequently delays the possibility of reaching settlement agreements. It is important to note that, in Chile, conciliation hearings are mandatory in most judicial procedures. This makes the methodology and findings of this study potentially relevant for understanding similar inefficiencies in other types of proceedings beyond environmental damage claims.

In this sense, the average duration of an environmental damage claim proceeding in the 2nd environmental court is 837 days. For this analysis, only cases that had reached a final ruling were included. Accordingly, the duration of each proceeding was measured as the number of days between the date of filing and the date of the final judgment.

The conciliation process, in turn, takes an average of 267 days. For this part of the analysis, we included only those cases in which a conciliation phase had actually taken place and had already concluded; cases with ongoing conciliation processes were excluded to ensure consistency. The average of 267 days represents 31.95% of the total duration of the proceedings.

The following chart illustrates the comparison between the overall length of the proceedings and the duration of the conciliation phase.

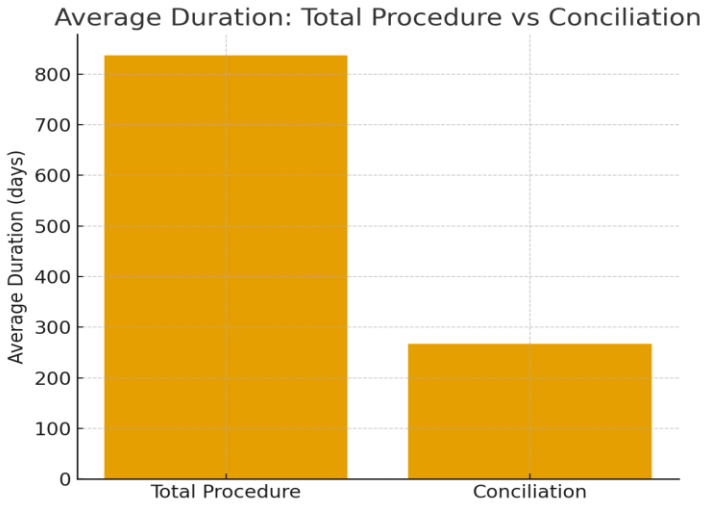


Fig. 1: Comparison of average total duration of the proceedings vs. total average duration of conciliation phases

Moreover, with respect to the number of conciliation processes, we found that at least 40 cases included a conciliation phase, representing more than 50% of the total sample. This number is likely an underestimation, however, given that (i) some ongoing cases have not yet reached the conciliation stage, and (ii) other cases were archived (terminated due to a lack of activity by the parties) before reaching that phase – had those cases continued, they would have been required to undergo a conciliation phase, as it is mandatory. For these reasons, the fact that only 50% of the cases show a conciliation phase does not accurately reflect the significance of this stage within the proceeding, especially considering that, as previously explained, conciliation is mandatory for all cases.

Regarding the success rate of the conciliation phase, we observed that 16 proceedings ended with a settlement agreement. However, in 3 of these 16 cases, an evidentiary hearing was held: an event that occurs only after the failure of conciliation. Consequently, only 13 of the 40 cases that went through a conciliation stage resulted in a settlement agreement that may be directly attributable negotiations in the context of a conciliation phase.

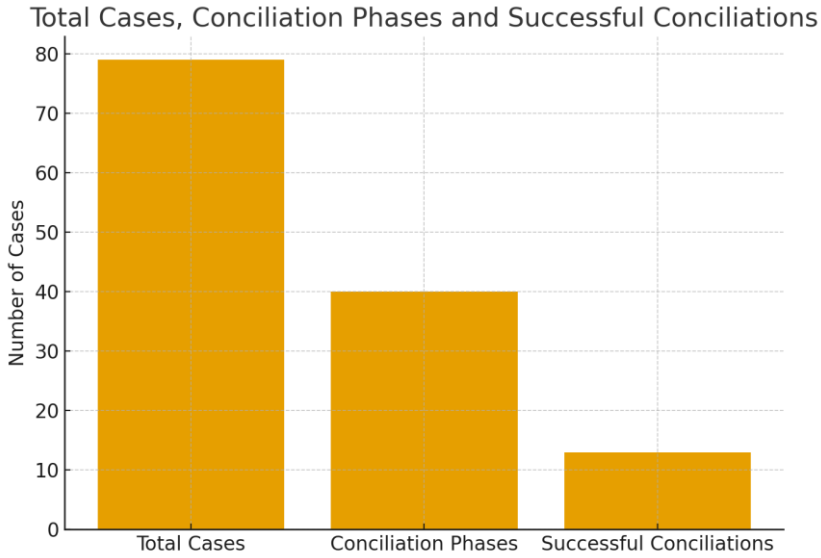


Fig. 2: Comparison of total cases in environmental damage claims, cases that included a conciliation phase, and cases in which conciliation was successful as a consequence of conciliation phases

3. Potential use of AI to promote access to justice.

The evidence presented reveals a significant access-to-justice challenge in Chilean environmental damage claim proceedings, arising from the absence of a trial process that is both efficient and timely. In the proceeding analyzed in this study, this deficit manifests primarily in the excessive length of the conciliation phase, which significantly delays case resolution and limits the parties' ability to obtain timely relief.

To address this challenge, this paper proposes the use of AI as a tool to enhance the efficiency of conciliation by helping predict potential judicial

outcomes. If both the parties and the judge have access to reliable estimations of the likelihood of success of the claim at issue, they may be better positioned to engage in informed negotiations and reach settlement agreements more quickly.

The following sections develop this proposal in greater detail by examining: (i) the potential applications of AI for improving the efficiency of conciliation phases; (ii) practical considerations that environmental courts should evaluate if they decide to implement AI-based judicial prediction tools; and (iii) concerns related to cultural bias and the importance of prioritizing regionally trained AI systems over foreign models.

3.1. The potential role of AI-based judicial-outcome prediction in improving the efficiency of conciliation phases.

As a preliminary note, it must be noted that, although some jurisdictions are already using some forms of AI-driven predictive analysis – Mexico's EXPERTIUS system and Australia's Split-Up model are some examples[7] – Chile has not yet incorporated comparable tools into its judicial practice – at least not in a formally regulated manner. The absence of such mechanisms highlights a significant technological gap within the Chilean legal system. Accordingly, the proposal advanced in this paper aims to contribute to the innovation and responsible integration of AI into judicial processes.

Regarding the problem of conciliation phases in environmental damage claims, as was shown, they take for approximately 32% of the total duration of proceedings – meaning that nearly one-third of the entire process is devoted solely to conciliation negotiations. In addition to this excessive length, the data collected in this study indicate that only 13 out of the 40 conciliation proceedings resulted in a successful agreement.

These findings reveal two central problems associated with conciliation phases in environmental damage claims: (i) their excessive duration, and (ii) the rate of successful negotiations.

Before examining how AI may help address these issues, it is important to recall that judges in these cases have the authority to intervene actively during conciliation. As a result, conciliation is not conducted exclusively between the parties; rather, it involves judicial participation. Judges may, for example: (i) hold meetings with the parties, (ii) propose strategies for advancing the negotiations, and (iii) suggest potential bases for a settlement agreement. This active judicial role is common across conciliation phases in Chilean legal proceedings, where conciliation is mandatory.

Within this context, AI has the potential to be an effective tool by supporting judges in performing their conciliation-related functions. Legal case-outcome prediction methods that employ AI may be used to analyze large collections of historical judicial decisions and legal background. By identifying patterns these

[7] UNESCO, *Global Toolkit on AI and the Rule of Law for the Judiciary* (UNESCO 2023) 61–62 https://unesdoc.unesco.org/ark:/48223/pf0000386694 accessed 29 October 2025.

systems can generate informed estimations about the likely outcomes of new or ongoing cases.[8]

In the same line, this technology may be used to help the parties reach an agreement more efficiently and effectively by predicting judicial decisions – on the understanding that, if the parties are aware of the likely outcome of their claim, they may be able to reach a settlement more quickly. These predictions may be based on (i) relevant jurisprudence from similar cases, (ii) previous settlement agreements adopted in disputes with comparable factual or legal grounds, and (iii) the applicable legal doctrine and regulatory framework, among others.

3.2. Practical considerations in the development and application of an AI-based judicial-outcome prediction tool.

Several studies have already employed AI to predict judicial decisions in different jurisdictions. The reported accuracy rates, however, vary significantly across studies, which raises important questions regarding the reliability of AI-generated predictions in judicial contexts. While some research suggests that AI prediction tools can achieve high levels of accuracy – reaching rates close to 90%[9] – other scholars have reported accuracy levels around 70%[10] or 59.7%.[11]

Therefore, the capacity and accuracy of these models are not uniform, as their performance may vary depending on multiple factors. Their development must thus be undertaken with particular care – especially if they are to be implemented within the judiciary as part of a broader public policy promoted by the government or the legislature. In the following paragraphs, we propose some guidelines for the responsible use of AI within the Chilean judicial system.

First, to operationalize this proposal, environmental courts should begin by running simulations in which AI-generated responses predict the probability of success of specific environmental damage claims.

In this regard, we propose training a Large Language Model ("LLM") in which the independent variables (inputs) may include: (i) all judicial decisions issued in the cases under review; (ii) all settlement agreements available in public court databases; (iii) the applicable regulatory framework(s); (iv) the relevant literature; and (v) the prompts used to formulate hypothetical claims, among others. The dependent variable (output) would consist of the results generated by the AI system – namely, the predicted probability of success of a claim based on the various datasets used to train the model.

Subsequently, to evaluate the accuracy of the model's outputs, during the training period the AI-generated predictions should be compared with the expert assessments of Chilean attorneys specializing in environmental litigation. Ideally, this evaluation would be conducted jointly with practitioners

[8] Pre-Dicta, *AI-Powered Legal Case Outcome Prediction Methods* (Pre-Dicta 2025) https://www.pre-dicta.com/ai-powered-legal-case-outcome-prediction-methods/ accessed 5 November 2025.
[9] MF Sert, E Yıldırım and İ Haşlak, 'Using Artificial Intelligence to Predict Decisions of the Turkish Constitutional Court' (2021) 40(6) Soc Sci Comput Rev.
[10] DM Katz, MJ Bommarito II and J Blackman, 'A General Approach for Predicting the Behavior of the Supreme Court of the United States' (2017) 12(4) PLOS One.
[11] A Mojon, R Mahari and SC Lera, 'Data-Driven Law Firm Rankings to Reduce Information Asymmetry in Legal Disputes' (2025) 5 Nat Comput Sci.

who participate in such proceedings, as well as with judges from the environmental courts. The objective of this exercise is to: (i) validate the accuracy of the AI's predictions; (ii) identify any relevant considerations that the system may not be adequately capturing; and (iii) assess how the model could be refined to achieve greater reliability and precision.

Finally, it is essential to highlight that the use of AI as proposed in this paper must always operate under strict human supervision. AI should never be treated as an autonomous or exclusive source of analysis. Judges and legal practitioners must remain the primary decision-makers, with AI serving only as a complementary instrument that informs – but never substitutes – their professional judgment.

In this regard, and although a full examination of this issue exceeds the scope of this paper, the effective implementation of this proposal would require modifications to the existing legal framework in Chile. Such reforms should clearly regulate how AI may be integrated into the judiciary and establish robust safeguards and sanctions to ensure that these systems are used responsibly and with the necessary human oversight.

3.3. Cultural-bias risks and the importance of adopting a regional LLM.

The need to develop an AI tool capable of being trained on all relevant data to predict potential judicial outcomes inevitably raises a broader question: what type of LLM should be used for such simulations, and should Latin American countries design their own systems rather than rely on foreign models? This inquiry is not merely technical. It touches on deeper considerations related to legal culture, interpretative traditions, and the structural particularities of each national legal system.

In this sense, it is relevant to note that scholars have shown that 'without cultural prompting the GPT models' cultural values are most aligned with the cultural values of countries in the Anglosphere and Protestant Europe'.[12] Similarly, research shows that widely used LLM systems (including OpenAI's GPT) exhibit biases favoring individuals categorized as Western, Educated, Industrialized, Rich, and Democratic ("WEIRD" people).[13]

This example illustrates that the performance and characteristics of AI-driven judicial prediction tools vary significantly depending on whether they are applied in WEIRD countries or in non-WEIRD contexts. Such differences in implementation further support the need for jurisdictions to develop regulatory frameworks tailored to their own institutional, cultural, and legal realities. A one-size-fits-all approach is unlikely to provide adequate safeguards or meaningful accuracy.

Accordingly, for the purpose of training an LLM for its use in environmental damage claim proceedings in Chile, we believe the most appropriate approach would be – where feasible – to rely on a locally developed model that reflects Chilean values, language patterns, and legal culture. Doing so would help

[12] Y Tao and others, 'Cultural Bias and Cultural Alignment of Large Language Models' (2024) 3 *PNAS Nexus*.

[13] M Atari and others, *Which Humans?* (2024) 5 <https://osf.io/preprints/psyarxiv/5b26t_v1> accessed 16 October 2025.

mitigate the risk of cultural bias in the system's outputs and ensure that the model's reasoning aligns more closely with domestic judicial practice.

In this regard, the case of Latam-GPT offers a particularly compelling example. Latam-GPT is an open-source, collaborative large language model developed within Latin America with the objective of providing culturally relevant capabilities and reducing the biases embedded in globally trained systems. Led by Chile's National Center for Artificial Intelligence (CENIA) and supported by more than 30 institutions and over 60 experts across the region, the initiative seeks to create an AI system that reflects Latin America's diverse cultures, languages, and institutional needs.[14]

Considering this, it is possible that, with appropriate safeguards in place, Latam-GPT could be fine-tuned and deployed to improve the efficiency of conciliation phases in environmental damage proceedings in Chile. A fine-tuned model on Chilean case law may identify historical patterns, estimate how similar fact patterns have been resolved in the past, and highlight the factors that have influenced prior judicial decisions.

However, and how it was already mentioned, the AI tool must never replace judicial discretion or due process. Its function should be strictly limited to offering jurisprudential trend analysis, not delivering definitive predictions or legal advice. When used responsibly, we believe that this model could provide outputs such as: "In previous environmental damage claims cases with similar facts, courts have generally ruled A, relying on legal considerations such as B, C, and D." Such assistance may be valuable for parties engaged in negotiations and for judges facilitating conciliation, but it cannot – and must not – be treated as a substitute for human legal judgment.

4. Conclusions.

The empirical analysis performed in this study reveals an access to justice deficit in Chile which, in the context of environmental damage claims, is reflected in the inefficiencies observed in the conciliation phase. These procedural shortcomings significantly hinder the timely and effective resolution of disputes. In response to this challenge, we propose the development and use of an AI-based tool that – through the training of an LLM using all relevant legal background, including judicial decisions, prior settlement agreements, and applicable doctrine – could offer informed predictions of potential judicial outcomes and thereby strengthen the likelihood and speed of achieving settlement agreements.

The deployment of such technology, however, is not exempt of risks. A main concern showed in this study is the possibility of cultural bias embedded in foreign AI models. For this reason, we advocate for the creation or fine-tuning of a locally grounded LLM model that more accurately reflects Chile's legal

[14] Fabian Cambero, 'Latin American Countries to Launch Own AI Model in September' Reuters (17 June 2025) <https://www.reuters.com/world/americas/latin-american-countries-launch-own-ai-model-september-2025-06-17/#:~:text=Sign%20up%20here.,capabilities%20will%20attract%20more%20funding> accessed October 20 2025.

culture and institutional context. Finally, although beyond the scope of this paper, it must be emphasized that the integration of AI into the Chilean judiciary raises significant regulatory and ethical questions. Adequately addressing these concerns is crucial to ensuring that the incorporation of AI into judicial processes advances in a responsible and transparent manner.