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Regulación de la Inteligencia Artificial: Desafíos para los Derechos Humanos en México

Regulation of Artificial Intelligence: Challenges for Human Rights in Mexico

Regulação da Inteligência Artificial: Desafios para os Direitos Humanos no México

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Resumen

Este estudio cualitativo analiza los desafíos legales que la inteligencia artificial (IA) presenta para los derechos humanos en México, con énfasis en la privacidad y la no discriminación. Ante la creciente adopción de la IA y la falta de un marco regulatorio específico, se busca comprender cómo estas tecnologías afectan los derechos fundamentales y qué medidas pueden implementarse para protegerlos. Además, se plantea que implementar la IA sin una regulación adecuada podría comprometer los derechos humanos. La investigación empleó análisis documental y de contenido, examinando legislación, informes gubernamentales, artículos académicos, información de instituciones no gubernamentales y publicaciones periodísticas sobre la IA y derechos humanos en México.

Los hallazgos revelan una brecha significativa en la normatividad mexicana respecto a la IA, exponiendo a los ciudadanos a riesgos potenciales. Así, se identificaron sesgos algorítmicos en sistemas de IA utilizados en sectores clave como el laboral, que podrían llevar a decisiones

discriminatorias. México debe priorizar el desarrollo de un marco regulatorio integral que aborde la protección de la privacidad, la prevención de la discriminación y la transparencia en el uso de la IA, equilibrando la innovación tecnológica con la salvaguarda de los derechos humanos. Este enfoque no solo beneficiaría a los ciudadanos mexicanos, sino que serviría como modelo para otros países en desarrollo que enfrentan desafíos similares en la era digital.

Palabras Clave: Inteligencia Artificial, Regulación, Derechos Humanos, Privacidad de Datos, Gobernanza Tecnológica, Políticas Públicas Digitales.

Abstract

This qualitative study analyzes the legal challenges that artificial intelligence (AI) presents for human rights in Mexico, with an emphasis on privacy and non-discrimination. Given the increasing adoption of AI and the lack of a specific regulatory framework, the research seeks to understand how these technologies impact fundamental rights and what measures can be implemented to protect them. Furthermore, it posits that the implementation of AI without adequate regulation could compromise human rights, particularly privacy and non-discrimination. The study employed documentary and content analysis, examining legislation, government reports, academic articles, information from non-governmental institutions, and press and dissemination works on AI and human rights in Mexico.

The findings reveal a significant gap in Mexican regulations regarding AI, exposing citizens to potential risks. Algorithmic biases were identified in AI systems used in key sectors such as employment, which could lead to discriminatory decisions. The study concludes that Mexico must prioritize the development of a comprehensive regulatory framework that addresses privacy protection, prevention of discrimination, and transparency in AI use, balancing technological innovation with the safeguarding of human rights. This approach would not only benefit Mexican citizens but could also serve as a model for other developing countries facing similar challenges in the digital era.

Keywords: Artificial Intelligence, Regulation, Human Rights, Data Privacy, Technological Governance, Digital Public Policies.

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Resumo

Este estudo qualitativo analisa os desafios legais que a inteligência artificial (IA) apresenta para os direitos humanos no México, com ênfase na privacidade e na não discriminação. Diante da crescente adoção da IA e da falta de um marco regulatório específico, busca-se compreender como essas tecnologias impactam os direitos fundamentais e quais medidas podem ser implementadas para protegê-los. Além disso, propõe-se a hipótese de que a implementação da IA sem uma regulamentação adequada poderia comprometer os direitos humanos, particularmente a privacidade e a não discriminação. A pesquisa utilizou análise documental e de conteúdo, examinando legislação, relatórios governamentais, artigos acadêmicos, informações de instituições não governamentais e trabalhos de imprensa e divulgação sobre IA e direitos humanos no México.

Os resultados revelam uma lacuna significativa na normatividade mexicana em relação à IA, expondo os cidadãos a riscos potenciais. Foram identificados vieses algorítmicos em sistemas de IA utilizados em setores-chave como o laboral, que poderiam levar a decisões discriminatórias. Conclui-se que o México deve priorizar o desenvolvimento de um marco regulatório abrangente que aborde a proteção da privacidade, a prevenção da discriminação e a transparência no uso da IA, equilibrando a inovação tecnológica com a salvaguarda dos direitos humanos. Esta abordagem não só beneficiaria os cidadãos mexicanos, mas também poderia servir como modelo para outros países em desenvolvimento que enfrentam desafios semelhantes na era digital.

Palavras-chave: Inteligência Artificial, Regulação, Direitos Humanos, Privacidade de Dados, Governança Tecnológica, Políticas Públicas Digitais.

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Introduction

Artificial intelligence (AI) has emerged as a transformative force in contemporary society, fundamentally altering the way we interact with technology and each other. This technological advancement, while promising enormous benefits, also poses significant challenges for human rights (Floridi & Cowls , 2019). In the Mexican context, where the regulatory framework for AI is still under development, it is crucial to examine how these technologies impact the fundamental rights of citizens.

The main objective of this research is to analyze the legal challenges that AI presents for human rights in Mexico, with a particular emphasis on privacy and non-discrimination. This approach, furthermore, aligns with the growing global concern about the ethical impacts of AI, as pointed out by Floridi and Cowls (2019), who propose a unified framework of five principles for AI in society: beneficence, non-maleficence, autonomy, justice and explainability .

To address this objective, the following research questions are raised:

1. How does AI affect human rights in Mexico?
2. What legal challenges does the implementation of AI present in relation to privacy and non-discrimination?
3. How can Mexican legislation be adapted to protect human rights in the face of the advance of AI?
4. What measures can be implemented to prevent algorithmic discrimination in AI systems used in Mexico?
5. How can the benefits of AI be balanced with the protection of human rights in the Mexican context?

These questions reflect the need for a holistic approach that considers both the technical and ethical aspects of AI. As Mittelstadt (2019) warns, ethical principles alone cannot guarantee ethical AI, but must be translated into concrete practices and policies.

Furthermore, the central hypothesis of this study is that, although AI has the potential to significantly improve quality of life and efficiency across multiple sectors in Mexico, its implementation without an adequate regulatory framework can jeopardize fundamental human rights, particularly with regard to data protection and equity. Thus, it is argued that the lack of concrete regulations on AI in Mexico increases the risk of privacy violations and discriminatory biases in automated systems.

The relevance of this research lies in the imminent need to address the legal challenges presented by AI, emphasizing the importance of developing proactive and robust regulation that safeguards human rights while fostering technological advancement in Mexico.

In the digital age, where AI adoption is on the rise, it is imperative that public policies and laws in Mexico evolve to address the unique challenges presented by this technology. Furthermore, by examining how legislation can be adapted to protect privacy, prevent algorithmic discrimination, and balance the benefits of AI with the protection of human

rights, this study aims to contribute to the development of a comprehensive, human-centered approach to AI regulation in the case study (Castaño, 2020).

Materials and methods

This qualitative research focused on analyzing the impact of AI on human rights, with a particular perspective on the Mexican context. The study was carried out using a qualitative methodological approach, using documentary analysis techniques (Bowen, 2009) and content analysis (Krippendorff, 2018) to collect and analyze relevant data (Hernández-Sampieri & Mendoza, 2022; Medina-Romero et al., 2023).

The research was conducted in Mexico, a country facing significant challenges in regulating AI due to the lack of a robust legal framework that guarantees the protection of human rights in the context of technological advancement. This context is particularly relevant given that Mexico, like many developing countries, is in a unique position where the adoption of AI technologies is growing rapidly, but regulatory structures are still under development (Becerril, 2021).

Thus, data collection was carried out through the following methodological procedures:

- Document analysis. A review of legal documents, government reports, academic articles and publications from non-governmental organisations addressing the relationship between AI and human rights was carried out. This review identified the main challenges and opportunities presented by AI in the field of human rights. Key documents included the Universal Declaration of Human Rights (United Nations [UN], 1948); relevant international treaties; foreign legislation – such as the European Union's General Data Protection Regulation (GDPR) and the AI Act (European Parliament, 2023, 2024); reports from international organizations such as the United Nations Educational, Scientific and Cultural Organization [UNESCO] (2021) and the UN (2024), as well as national institutions such as the Federal Telecommunications Institute [IFT] (2022a, 2022b, 2023) and the National Institute for Transparency, Access to Information and Protection of Personal Data [INAI] (2021, 2022, 2023), on AI and human rights; and Mexican legislation and legislative initiatives in process related to technology and human rights: Political Constitution of the United Mexican States –articles 6 and 16– (Chamber of Deputies, 2024), Federal Law on the Protection of Personal Data Held by Private Parties (Chamber of Deputies, 2010),

General Law on the Protection of Personal Data Held by Obligated Subjects (Chamber of Deputies, 2017), Federal Law on Telecommunications and Broadcasting (Chamber of Deputies, 2021), National Digital Strategy 2021-2024 (Official Gazette of the Federation, 2021, September 6), Initiative that reforms and adds various provisions to the Law on Science and Technology and the General Health Law (Chamber of Deputies, 2020, April 28), Initiative that issues the Law that creates the University of Information, Communications and Technology Technologies ... Innovation (Chamber of Deputies, 2020, August 12), Initiative to reform and add various provisions to the Law on Science and Technology (Chamber of Deputies, 2021, January 7), Initiative to add article 77 Bis to the General Health Law (Senate of the Republic, 2021, January 13), Proposal to reform to create the National Strategy for the Appropriate and Ethical Use of Artificial Intelligence (Chamber of Deputies, 2024, February 25), and Proposal for a National Agenda for Artificial Intelligence for Mexico 2024-2030 (Senate of the Republic, 2024, May 15).

The selection of these documents was based on their relevance and timeliness, prioritizing those published in the last fourteen years – in the case of academic articles and publications by non-governmental organizations – to assess recent trends in the field of AI and human rights.

- Content analysis. A content analysis of media outlets was conducted to understand how AI is perceived in Mexican society and what concerns exist regarding its impact on human rights. This method allowed us to capture a variety of perspectives and discourses present in the public domain. Thus, press articles from national and international newspapers and works published in journals that address the topics of technology and human rights were reviewed. The examination period covered the last ten years to capture recent discussions on the topic.

Relevant and current materials were selected for the topic of study, and sources that offered a critical and detailed analysis of the implications of AI on human rights were prioritized. In addition, a representative range of perspectives was sought to be included, from academics , technology experts and authorities to human rights activists and ordinary citizens through non-governmental organizations (Sabater & De Manuel, 2024).

The qualitative data analysis was conducted using a thematic coding approach (Braun & Clarke, 2006; Gibbs, 2007). Data collected from documents and content analysis were transcribed and analysed to identify patterns, recurring themes and discrepancies in

perceptions about AI and human rights. Key themes identified included human rights and dignity, regulatory framework, security and privacy, algorithmic biases, labour transformation, public perception, ethics and values, transparency and accountability in the use of AI.

NVivo software (version 14) was used to organize and analyze qualitative data (Lumivero, 2023), as well as to code data and identify key themes, which helped structure the findings in a coherent manner. And, to ensure the validity and reliability of the study, the following strategies were implemented:

- Data triangulation. Data from multiple sources were compared and contrasted to verify the consistency of findings (Flick, 2018).
- Peer review. Preliminary results were reviewed by AI ethics and human rights experts for feedback and validation.
- Research audit. A detailed record of all methodological and analytical decisions was maintained to ensure transparency of the research process.

This study prioritized the analysis of non-discrimination in the context of AI in the Mexican case, without neglecting the analysis of privacy, although with less comparative space. This methodological decision responded to the urgency and impact of the challenges of algorithmic discrimination in key sectors of Mexican society. In addition, the interrelation between privacy and non-discrimination in AI is recognized, so many aspects of privacy are addressed indirectly when analyzing non-discriminatory practices.

The combination of documentary and content analysis enabled data triangulation that enriched the validity of the study's findings and conclusions. This multifaceted approach facilitated the identification of areas of consensus and discrepancy in the perception of AI and its impact on human rights, providing a solid foundation for future research and policy development in this crucial field.

Results

Through documentary and content analysis, the regulatory challenges that AI presents for human rights in Mexico were identified (see Tables 1 and 2 in the Annex). This advocacy study revealed significant findings in several key areas. These results are presented in a clear and orderly manner to facilitate their understanding.

First, the research identified a significant gap in the Mexican regulatory framework regarding AI. It was found that, unlike other countries such as the United States or the

European Union, Mexico lacks specific legislation that regulates the development and use of AI, and that addresses the legal challenges of this technology (Maqueo et al., 2021; Ortega, 2024). This absence of comprehensive regulation exposes citizens to potential risks in terms of privacy and data protection. For example, while the European Union has the General Data Protection Regulation (GDPR) that establishes strict consent and transparency requirements for the processing of personal data, including in AI applications, Mexico still lacks a specific regulatory framework for these technologies (Pérez-Ugena, 2024; Becerril, 2021). According to reports from the National Institute for Transparency, Access to Information and Protection of Personal Data (INAI), this regulatory gap contributed to the increase in complaints about privacy violations in 2021 and 2022 (National Institute for Transparency, Access to Information and Protection of Personal Data, 2021, 2022, 2023). This situation highlights the need to develop regulations that specifically address the challenges posed by AI in terms of data protection and privacy.

Secondly, while the European Union has implemented the General Data Protection Regulation (GDPR) and is developing the AI Act (European Parliament, 2023, 2024), and the United States has established guidelines through the White House Office of Science and Technology Policy, Mexico does not yet have specific regulations for AI (Maqueo et al., 2021; Ortega, 2024; Becerril, 2021) although there are government proposals and legislative initiatives underway (Villanueva, et al., 2024). However, the government presented a *2018 Mexican Artificial Intelligence Strategy* (Gobierno de México, 2018) and a *2021-2024 National Digital Strategy* (Diario Oficial de la Federación, 2021), and deputies and senators have promoted the reform proposal to create the *National Strategy for the Appropriate and Ethical Use of Artificial Intelligence* (Cámara de Diputados, 2024), as well as the initiative of the *National Artificial Intelligence Agenda for Mexico 2024-2030* (Senado de la República, 2024), respectively, these efforts have not yet been translated into concrete legislation, leaving a significant gap in the protection of citizens against the risks associated with AI.

The research also identified algorithmic biases in AI systems used in Mexico, particularly in sectors such as the labor sector. For example, the INAI (2021, 2022, 2023) addressed the use of AI systems in hiring processes in Mexican companies, and the results revealed that there is a significant risk of algorithmic biases in these systems, which could lead to discrimination in selection processes. These findings are consistent with identified global trends that indicate that algorithmic biases are a persistent challenge in the growing

AI ecosystem (Ferrante, 2021; Rebollar, 2023; Comas-Forgas, 2023). Furthermore, by discussing algorithmic biases in hiring processes, one is implicitly addressing how citizens' personal data is collected, processed, and used (crucial aspects of privacy). In addition, Gómez Mont et al. (2020b) highlight the imperative to address these biases through robust ethical policies and approaches throughout Latin America.

Furthermore, the research indicated that the adoption of AI in various sectors is transforming the Mexican labor market. The Federal Telecommunications Institute (IFT) has reviewed the use of AI systems in decision-making processes in Mexican companies from various sectors, warning that of the companies reviewed and that use AI systems in their processes, a significant number presented significant biases that could lead to discriminatory decisions, especially in hiring and performance evaluation processes (Instituto Federal de Telecomunicaciones, 2023, 2022b). These conditions coincide with global studies that identify algorithmic biases as a persistent challenge in the development of AI in Mexico; and, therefore, recent research underscores the urgency of addressing these biases through effective policies and ethical frameworks in Latin America, including Mexico (Ferrante, 2021; Rebollar, 2023; Comas-Forgas, 2023; Gómez Mont et al., 2020b; Instituto Federal de Telecomunicaciones, 2022c).

The last aspect considered by the study was public perception and awareness about AI in Mexico. Data from the *Survey of knowledge of fixed and/or mobile internet users about Artificial Intelligence* reports that only 30.3% of users know or have heard something about AI, while 67.8% are completely unaware of the subject; and the same source showed that the main concern of users when providing information for the operation of AI is that it is used for other purposes (25.3%) and the theft of information/identity (24.5%) (Federal Institute of Telecommunications, 2022a). In addition, based on its studies on the habits of Internet users over several years, the Internet Association MX (2023, 2022, 2021) concludes that trust in new technologies, including AI, is linked to the perception of security and regulation. These findings in Mexico coincide with international trends. According to data on AI and the labor market of the Organization for Economic Cooperation and Development (OECD) (2023), citizens in member countries expressed similar concerns about privacy and the need for effective AI regulation. This convergence of opinions at the international level underscores the importance of developing robust and harmonized regulatory frameworks for AI, not only in Mexico but around the world.

Discussion

The results underscore the pressing need to develop a robust regulatory framework for AI in Mexico. The absence of concrete legislation puts the country at a disadvantage compared to other nations that have already implemented ethical and legal guidelines for AI (Jobin et al., 2019). This regulatory gap not only exposes citizens to potential risks, but could also hinder innovation and responsible development of AI in the country.

Likewise, the rise in AI-related privacy violations suggests that current protections are insufficient. This raises significant concerns about the ability of the existing legal framework to safeguard human rights in the digital age. It is crucial that future AI regulation in Mexico prioritizes privacy protection and informed consent (Fjeld et al., 2020).

Furthermore, the presence of algorithmic biases in AI systems used in Mexico highlights the need to implement more rigorous auditing and control mechanisms. These findings underline the importance of developing ethical standards that guarantee fairness and non-discrimination in the design and implementation of AI systems (Jobin et al., 2019).

Also, the projection of job automation poses significant challenges for the Mexican labor market. It is imperative that the government, in collaboration with the private sector and academia, develop proactive education and training policies to prepare the workforce for the transition to a more automated economy (Ripani , 2020; Minian et al., 2018; Gómez Mont et al., 2020a).

On the other hand, public perception about AI reveals a growing concern among Mexican citizens. This highlights the importance of promoting a broad public dialogue on the impacts of AI and of involving civil society in the development of policies and regulations related to these technologies.

Based on the findings, the development of a comprehensive regulatory framework for AI in Mexico is justified, addressing the following key principles:

- Transparency and explainability of AI systems.
- Protection of privacy and personal data.
- Equity and non-discrimination in the design and use of AI
- Responsibility and accountability in AI implementation.
- Promotion of human and social well-being.

This framework should be developed through a participatory process that includes all relevant stakeholders, from decision makers, authorities, legislators, academics, to ethicists, technologists and civil society representatives (Fjeld et al., 2020; Medina, 2024).

The results of this inquiry therefore underline the pressing need to address the legal challenges posed by AI in the case of Mexico. The development of a robust legal framework, based on robust ethical principles and in line with international best practices, is crucial to ensure that AI contributes positively to the country's social and economic development, while protecting fundamental human rights.

Conclusion

This research has fulfilled its main objective of analyzing the legal challenges that AI presents for human rights in Mexico, focusing on two critical areas: privacy and non-discrimination. The study has explored the complex intersection between AI and human rights in the specific context of Mexican society, revealing important nuances in this relationship. Furthermore, the findings confirm the initial hypothesis that, while AI has the potential to significantly improve quality of life and efficiency in multiple sectors, its implementation without an adequate regulatory framework can put fundamental human rights at risk. This risk is particularly evident in the areas of privacy and non-discrimination, where significant gaps in current legal protection have been identified.

Thus, the lack of a specific and consistent regulatory framework in Mexico exposes citizens to violations of their privacy and algorithmic discrimination. This regulatory gap is particularly worrying given the accelerated pace of adoption of AI technologies in various sectors of Mexican society. The study identified significant challenges that require urgent attention, such as the risk of invasion of privacy due to the massive collection and processing of personal data without adequate informed consent. In a context where personal data has a strategic value, its protection is crucial to safeguard the autonomy and dignity of individuals.

Another critical challenge identified was the possibility of algorithmic discrimination, especially in key sectors such as employment. AI algorithms, if not carefully designed and audited, can perpetuate and amplify existing biases in society, leading to unfair decisions in areas such as granting credit or selecting candidates for jobs. This not only violates the fundamental principle of non-discrimination, but can also exacerbate existing inequalities in Mexican society.

In order to effectively address these challenges, the research suggests that Mexico urgently needs to develop a comprehensive and proactive regulatory framework that explicitly addresses privacy protection and the prevention of discrimination in the use of AI. To achieve this, a number of concrete actions need to be implemented. First, existing laws

need to be reviewed and updated to address the unique challenges posed by AI in terms of the collection, processing, and use of personal data. In parallel, it is crucial to establish rigorous processes to evaluate and monitor AI algorithms for bias and discriminatory outcomes.

The development of clear and enforceable guidelines for the ethical use of AI technologies is essential, serving as a guide for developers, companies, and government agencies. These guidelines must be accompanied by specific privacy and human rights impact assessments for AI projects, especially those that affect critical sectors or vulnerable populations. To reduce inherent biases and ensure that the technologies developed are inclusive and representative of all Mexican society, it is essential to foster diversity in AI development teams.

The creation of independent and robust bodies to oversee the development and implementation of AI systems is necessary, giving them the power to investigate and sanction violations. Transparency plays a fundamental role in this regulatory framework. It is therefore crucial to establish standards that allow people to understand how AI systems that affect their lives and decisions work, guaranteeing them the right to know, question and, where appropriate, challenge decisions made by AI systems that affect their prerogatives or interests.

Furthermore, the need for a multi-sectoral approach that prioritizes the protection of privacy and non-discrimination, while recognizing and leveraging the potential benefits of AI is emphasized. This delicate balance requires close collaboration between diverse actors: the government, to establish and enforce regulations; academia, to provide research and expertise; the private sector, to implement ethical practices in AI development; and civil society, to represent citizens' interests and concerns. It is also recommended to develop comprehensive public policies that not only encourage technological innovation, but also establish robust safeguards to protect human rights. These policies should include education and awareness programs on the ethical use of AI, aimed at both developers and the general public. Digital literacy and understanding of the basic principles of AI will be crucial to empower citizens in the digital age.

The study provides a solid and well-founded basis for the development of policies and regulations that ensure that the implementation of AI in Mexican society is carried out in a way that respects and actively promotes human rights, through ethical and responsible integration, and with sustained and collaborative effort. Looking to the future, the complexity

of the challenges identified demands constant vigilance and a willingness to adapt strategies as new technologies and challenges emerge.

In conclusion, success in managing the relationship between AI and human rights in Mexico will not only benefit Mexican citizens, but would also serve as a model for other developing countries facing similar challenges. By proactively addressing these challenges, Mexico has the opportunity to position itself as a leader in the ethical and responsible development of AI, demonstrating that it is possible to harness the benefits of advanced technology without compromising the core values of dignity, equality, and respect for human rights.

Future lines of research

The present study on the legal challenges that AI presents for human rights in the case of Mexico has revealed several general areas for future research. These lines of study address aspects that, while crucial, exceed the initial scope of this work and deserve further analysis. First, it is proposed to develop and apply comprehensive (mixed) methodological approaches that combine qualitative and quantitative methods, including AI-specific impact assessment tools, adapted to the Mexican context.

In parallel, it is suggested to carry out a comparative study of international AI regulatory frameworks, with the aim of identifying best practices and developing a model adapted to the needs and realities of Mexico. Another important line of research would be to study how Mexico can effectively participate in global initiatives to establish ethical standards in AI, while longitudinally monitoring public perception of AI and its impact on human rights.

It is also recommended that a complementary study be conducted that focuses specifically on AI-related data protection challenges in Mexico, to further address and delve deeper into this gap in current research.

The following particular areas were also identified that address specific challenges related to privacy and equity in the context of AI in the case study. First, it is pertinent to carry out the development of algorithmic auditing frameworks for AI systems in Mexico, with an emphasis on the detection and mitigation of biases in critical sectors.

Secondly, it is relevant to analyse the impact of AI on vulnerable groups and strategies to guarantee algorithmic equity, ensuring that these technologies do not perpetuate existing inequalities. Finally, a comparative study on the effectiveness of data privacy regulations on

AI between Mexico and other countries should be considered, evaluating their effectiveness in protecting personal data.

These lines of research seek to deepen our understanding of the complex relationship between AI and human rights in Mexico, providing a solid foundation for the development of policies and practices that maximize the benefits of AI while protecting and promoting the fundamental rights of all citizens.

References

Asociación de Internet MX. (2021). *17° Estudio sobre los Hábitos de los Usuarios de Internet en México 2021.* https://irp.cdn-website.com/81280eda/files/uploaded/17%C2%B0%20Estudio%20sobre%20los%20Ha%CC%81bitos%20de%20los%20Usuarios%20de%20Internet%20en%20Me%CC%81xico%202021%20v16%20Publica.pdf

Asociación de Internet MX. (2022). *18° Estudio sobre los Hábitos de Personas Usuarias de Internet en México 2022.* https://irp.cdn-website.com/81280eda/files/uploaded/18%C2%B0%20Estudio%20sobre%20los%20Habitos%20de%20Personas%20Usuarias%20de%20Internet%20en%20Mexico%202022%20%28Publica%29%20v2.pdf

Asociación de Internet MX. (2023). *19° Estudio sobre los hábitos de usuarios de internet en México 2023.* https://irp.cdn-website.com/81280eda/files/uploaded/19%20Estudio%20sobre%20los%20Hai-bitos%20de%20Usuarios%20de%20Internet%20en%20Mei-xico%202023%20.pptx.pdf

Becerril, A. A. (2021, marzo 14). Retos para la regulación jurídica de la Inteligencia Artificial en el ámbito de la Ciberseguridad. *Revista IUS,* 15(48). https://doi.org/10.35487/rius.v15i48.2021.705

Bowen, G. A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal,* 9(2), 27-40. https://doi.org/10.3316/QRJ0902027

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology,* 3(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Cámara de Diputados. (2024). *Constitución Política de los Estados Unidos Mexicanos.* https://www.diputados.gob.mx/LeyesBiblio/pdf/CPEUM.pdf

Cámara de Diputados. (2010). *Ley Federal de Protección de Datos Personales en Posesión de los Particulares.* https://www.diputados.gob.mx/LeyesBiblio/pdf/LFPDPPP.pdf

Cámara de Diputados. (2017). *Ley General de Protección de Datos Personales en Posesión de Sujetos Obligados.* https://www.diputados.gob.mx/LeyesBiblio/pdf/LGPDPPSO.pdf

Cámara de Diputados. (2020, abril 28). Iniciativa que reforma y adiciona diversas disposiciones de la Ley de Ciencia y Tecnología y de la Ley General de Salud, presentada por el dip. Carlos Humberto Castaños. *Gaceta Parlamentaria.* http://sil.gobernacion.gob.mx/Librerias/pp_ContenidoAsuntos.php?SID=108feb6642719b52eb7d183beaa96a70&Clave=4035539

Cámara de Diputados. (2020, agosto 12). Iniciativa con proyecto de decreto por el que se expide la ley que crea la Universidad de Tecnologías de la Información, Comunicaciones e Innovación, presentada por el dip. Carlos Iván Ayala. *Gaceta Parlamentaria.* http://sil.gobernacion.gob.mx/Librerias/pp_ContenidoAsuntos.php?SID=108feb6642719b52eb7d183beaa96a70&Clave=4059591

Cámara de Diputados. (2021). *Ley Federal de Telecomunicaciones y Radiodifusión.* https://www.diputados.gob.mx/LeyesBiblio/pdf/LFTR.pdf

Cámara de Diputados. (2021, enero 7). Iniciativa que reforma y adiciona diversas disposiciones de la Ley de Ciencia y Tecnología, presentada por el dip. Mario Alberto Rodríguez, *Gaceta Parlamentaria.*http://sil.gobernacion.gob.mx/Librerias/pp_ContenidoAsuntos.php?SID=bcfc898d03f757d8aedb8d776c83a077&Clave=4128934

Cámara de Diputados. (2024, febrero 25). Impulsan reforma para crear la "Estrategia Nacional para el Uso Adecuado y Ético de la Inteligencia Artificial". *Boletines,* No. 6064. LXV Legislatura. https://comunicacionsocial.diputados.gob.mx/index.php/boletines/impulsan-reforma-para-crear-la-estrategia-nacional-para-el-uso-adecuado-y-tico-de-la-inteligencia-artificial-

Castaño, D. (2020). La gobernanza de la Inteligencia Artificial en América Latina: entre la regulación estatal, la privacidad y la ética digital. En C. Aguerre. (Ed.). *Inteligencia artificial en América Latina y el Caribe. Ética, gobernanza y políticas.* Centro de Estudios en Tecnología y Sociedad de la Universidad de San Andrés.

https://proyectoguia.lat/wp-content/uploads/2020/10/compilado-espanol-compressed.pdf

Comas-Forgas, R. (2023). Sesgos algorítmicos en educación: análisis y soluciones. En REDINE (Ed.), *Conference Proceedings EDUNOVATIC 2023* (p. 329). Adaya Press. https://doi.org/10.58909/adc24139168

Diario Oficial de la Federación. (2021, septiembre 6). Acuerdo por el que se expide la Estrategia Digital Nacional 2021-2024. https://dof.gob.mx/nota_detalle.php?codigo=5628886&fecha=06/09/2021#gsc.tab=0

Ferrante, E. (2021). Inteligencia artificial y sesgos algorítmicos ¿Por qué deberían importarnos? *Nueva Sociedad,* (294), 27-36.

Fjeld, J. *et al.* (2020). Principled Artificial Intelligence: Mapping Consensus in Ethical and Rights-Based Approaches to Principles for AI. *Berkman Klein Center Research Publication*, No. 2020-1. https://doi.org/10.2139/ssrn.3518482

Flick, U. (2018). *Doing triangulation and mixed methods.* SAGE Publications Ltd. https://methods.sagepub.com/book/doing-triangulation-and-mixed-methods

Floridi, L., & Cowls, J. (2019). A Unified Framework of Five Principles for AI in Society. *Harvard Data Science Review,* 1(1), 2-15. https://doi.org/10.1162/99608f92.8cd550d1

Gibbs, G. R. (2007). *Analyzing qualitative data.* SAGE Publications Ltd.

Gobierno de México. (2018). *Inteligencia Artificial de México.* Coordinación de Estrategia Digital Nacional. https://www.gob.mx/epn/es/articulos/inteligencia-artificial-en-mexico

Gómez Mont, C. *et al.* (2020a). *La inteligencia artificial al servicio del bien social en América Latina y el Caribe: Panorámica regional e instantáneas de doce países.* Banco Interamericano de Desarrollo (BID). http://dx.doi.org/10.18235/0002393

Gómez Mont, C. *et al.* (2020b). *La inteligencia artificial en América Latina y el Caribe: Ética, gobernanza y políticas.* En C. Aguerre. (Ed.). *Inteligencia artificial en América Latina y el Caribe. Ética, gobernanza y políticas.* Centro de Estudios en Tecnología y Sociedad de la Universidad de San Andrés. https://proyectoguia.lat/wp-content/uploads/2020/10/compilado-espanol-compressed.pdf

Güicho, M. (2024, 16 de mayo). Inteligencia artificial y legislación: un equilibrio necesario. *El Universal.* https://www.eluniversal.com.mx/opinion/monica-guicho/inteligencia-artificial-y-legislacion-un-balance-necesario/

Hernández-Sampieri, R., & Mendoza Torres, C. P. (2022). *Metodología de la investigación: las rutas cuantitativas, cualitativas y mixta.* Editorial McGraw Hill.

Instituto Federal de Telecomunicaciones. (2022a). *4°. Informe Trimestral Estadístico 2022.* https://www.ift.org.mx/sites/default/files/contenidogeneral/estadisticas/ite4t2022.pdf

Instituto Federal de Telecomunicaciones. (2022b). *Anuario Estadístico 2022.* https://www.ift.org.mx/sites/default/files/contenidogeneral/estadisticas/anuarioestadistico2022acc.pdf

Instituto Federal de Telecomunicaciones. (2022c). *Estudios Internacionales en materia de Telecomunicaciones 2022.* https://www.ift.org.mx/usuarios-y-audiencias/estudios-internacionales-en-materia-de-telecomunicaciones-2022

Instituto Federal de Telecomunicaciones. (2023). *Anuario Estadístico 2023.* https://www.ift.org.mx/sites/default/files/contenidogeneral/estadisticas/anuarioestadistico2023acc.pdf

Instituto Nacional de Transparencia, Acceso a la Información y Protección de Datos Personales. (2021). *Informe de Labores 2021.* https://micrositios.inai.org.mx/informeshistorico/wp-content/uploads/2022/10/InformeLaboresINAI2021.pdf

Instituto Nacional de Transparencia, Acceso a la Información y Protección de Datos Personales. (2023). *Informe de Labores 2022.* https://micrositios.inai.org.mx/informesinai/

Instituto Nacional de Transparencia, Acceso a la Información y Protección de Datos Personales. (2023). *Informe de Labores 2023.* https://home.inai.org.mx/wp-content/uploads/Informe-Laboral-INAI-2023_WEB_B-1.pdf

Jobin *et al.* (2019). The global landscape of AI ethics guidelines. *Nature Machine Intelligence,* 1(9), 389-399. https://doi.org/10.1038/s42256-019-0088-2

Krippendorff, K. (2018). *Content analysis: An introduction to its methodology.* (4ª ed.). SAGE Publications.

Legaspi, A. (2024, 14 de mayo). La era del Internet y la promesa de la inteligencia artificial. *El Financiero.* https://www.elfinanciero.com.mx/opinion/colaborador-invitado/2024/05/14/la-era-del-internet-y-la-promesa-de-la-inteligencia-artificial/

Limón, R. (2023, 19 de diciembre). Las grandes compañías desarrollan plataformas para asegurar un desarrollo ético y legal de la inteligencia artificial. *El País.* https://elpais.com/tecnologia/2023-12-20/las-grandes-companias-desarrollan-

plataformas-para-asegurar-un-desarrollo-etico-y-legal-de-la-inteligencia-artificial.html

Lumivero. (2023). *NVivo (Version 14).* [Computer software]. https://lumivero.com/products/nvivo/

Maqueo, M. S., Moreno, J., Mendoza, O. A., & Rentería, C. (2021). *Evaluación del grado de preparación para la adopción de inteligencia artificial en los sistemas judiciales de la región. Caso México. Centro* de Estudios en Tecnología y Sociedad (CETyS) de la Universidad de San Andrés. https://repositorio.udesa.edu.ar/jspui/handle/10908/18634

Medina-Romero *et al.* (2023). *Método mixto de investigación: Cuantitativo y cualitativo.* Instituto Universitario de Innovación Ciencia y Tecnología Inudi Perú. https://doi.org/10.35622/inudi.b.105

Medina, M. (2024). Aplicaciones de la Inteligencia Artificial para la investigación y la innovación en la educación superior. *Revista Social Fronteriza,* 4(4). https://doi.org/10.59814/resofro.2024.4(4)336

Méndez, R., & Sánchez, L. (2023, 24 de abril). Inteligencia artificial y el futuro del derecho. *Nexos.* https://eljuegodelacorte.nexos.com.mx/inteligencia-artificial-y-el-futuro-del-derecho/

Minian, I., & Martínez Monroy, Á. (2018). El impacto de las nuevas tecnologías en el empleo en México. *Problemas del desarrollo,* 49(195), 27-53. https://doi.org/10.22201/iiec.20078951e.2018.195.64001

Mittelstadt, B. (2019). Principles alone cannot guarantee ethical AI. *Nature Machine Intelligence,* 1, 501-507. https://doi.org/10.1038/s42256-019-0114-4

Organisation for Economic Co-operation and Development. (2023). *Artificial intelligence and the labour market: What we know so far.* OECD Social, Employment and Migration Working Papers, No. 282. OECD Publishing. https://doi.org/10.1787/08785bba-en

Organización de las Naciones Unidas. (1948). *Declaración Universal de los Derechos Humanos.* https://www.ohchr.org/sites/default/files/UDHR/Documents/UDHR_Translations/spn.pdf

Organización de las Naciones Unidas. (2024, 7 de marzo). *La Asamblea General adopta una resolución histórica sobre la IA*. https://news.un.org/es/story/2024/03/1528511

Ortega, M. J. (2024, 15 de mayo). Legislar para Proteger: La urgencia de regular la Inteligencia Artificial en México. *DLMEX.* https://dlmex.org/legislar-para-proteger-la-urgencia-de-regular-la-inteligencia-artificial-en-mexico/

Ortiz, A. (2023, 10 de noviembre). Más allá de los algoritmos: desafíos y tendencias en la regulación global de la Inteligencia Artificial. *El Economista.* https://www.eleconomista.com.mx/opinion/Mas-alla-de-los-algoritmos-desafios-y-tendencias-en-la-regulacion-global-de-la-Inteligencia-Artificial-20231110-0030. HTML

Parlamento Europeo. (2023, diciembre 9). *Artificial Intelligence Act: deal on comprehensive rules for trustworthy AI.* https://www.europarl.europa.eu/news/es/press-room/20231206IPR15699/artificial-intelligence-act-deal-on-comprehensive-rules-for-trustworthy-ai

Parlamento Europeo. (2024, marzo 13). *La Eurocámara aprueba una ley histórica para regular la inteligencia artificial.* https://www.europarl.europa.eu/news/es/press-room/20240308IPR19015/la-eurocamara-aprueba-una-ley-historica-para-regular-la-inteligencia-artificial

Parlamento Europeo y Consejo de la Unión Europea. (2016, abril 27). Reglamento (UE) 2016/679 del Parlamento Europeo y del Consejo relativo a la protección de las personas físicas en lo que respeta al tratamiento de datos personales y la libre circulación de estos datos (Reglamento General de Protección de Datos). *Diario Oficial de la Unión Europea.*

Parlamento Europeo y Consejo de la Unión Europea. (2024, junio 13). Reglamento (UE) 2024/1689 del Parlamento Europeo y del Consejo por el que se establecieron normas armonizadas sobre la inteligencia artificial (Ley de Inteligencia Artificial). *Diario Oficial de la Unión Europea.*

Pascual, M. G. (2023, 22 de noviembre). Cómo impedir que la inteligencia artificial genere más carga de trabajo y más control sobre el empleado. *El País.* https://elpais.com/economia/2023-11-23/como-impedir-que-la-inteligencia-artificial-genere-mas-carga-de-trabajo-y-mas-control-sobre-el-empleado. HTML

Pérez-Ugena, M. (2024). Análisis comparado de los distintos enfoques regulatorios de la inteligencia artificial en la Unión Europea, EE. UU., China e Iberoamérica. *Anuario Iberoamericano de Justicia Constitucional,* 28(1). https://doi.org/10.18042/cepc/aijc.28.05

Rebollar, A. (2023, mayo 16). Sesgos algorítmicos y ética en la IA. *ADP México.* https://adpmx.com/sesgos-algoritmicos-y-etica-en-la-ia/

Ripani, L. *et al.* (2020). *El futuro del trabajo en América Latina y el Caribe.* Banco Interamericano de Desarrollo.

Riquelme, R. (2024, Julio 17). 60% de mexicanos desconoce que la Inteligencia Artificial se entrena con datos personales. El Economista. https://www.eleconomista.com.mx/tecnologia/60-de-mexicanos-desconoce-que-a-Inteligencia-Artificial-se-entrena-con-datos-personales-20240717-0034.html

Sabater, A., & De Manuel, A. (2024, mayo 18). Una mirada y discusión a través de la literatura especializada y de opiniones expertas. *Revista Inteligencia Artificial, Ética y Sociedad.* https://www.udg.edu/ca/Portals/57/OContent_Docs/Informe_OEIAC_2021_cast.pdf

Senado de la República. (2021, enero 13). Iniciativa que adiciona el artículo 77 Bis a la Ley General de Salud, presentada por la sen. Nuvia Magdalena Mayorga. *Gaceta Parlamentaria.* http://sil.gobernacion.gob.mx/Archivos/Documentos/2021/01/asun_4129756_20210113_1610551834.pdf

Senado de la República. (2024, mayo 15). *Presentan en el Senado Agenda Nacional de la Inteligencia Artificial para México 2024-2030.* Coordinación de Comunicación Social. LXV Legislatura. https://comunicacionsocial.senado.gob.mx/informacion/comunicados/8982-presentan-en-el-senado-agenda-nacional-de-la-inteligencia-artificial-para-mexico-2024-2030

United Nations Educational, Scientific and Cultural Organization. (2021). *Recommendation on the Ethics of Artificial Intelligence.* https://unesdoc.unesco.org/ark:/48223/pf0000381133/PDF/381133eng.pdf.multi.page=62

Villanueva, D. *et al.* (2024, abril 1). La intersección entre la inteligencia artificial y la protección de datos personales en México. *IAPP.* https://iapp.org/news/a/la-interseccion-entre-la-inteligencia-artificial-y-la-proteccion-de-datos-personales-en-mexico

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Exhibit

Table 1. Documentary analysis on the regulation of artificial intelligence (AI) for the guarantee of human rights in Mexico

Main topics	Fundamental human rights	Protection of personal data, privacy	AI-specific regulation	AI ethics, human rights	Technological regulation, protection of rights
Guy	International Declaration	European legislation	European legislation	International recommendation	National legislation (Mexico)
Ethical and legal challenges	Application of principles to new technologies	Informed consent, transparency in AI	Algorithmic biases, high-risk systems	Impact on privacy, employment, decision making	Regulatory gap in AI
Opportunities	Fundamental ethical framework	Data protection standards	Specific regulatory framework	Global ethical framework	Development of national legal framework
Relevance to AI and human rights	High relevance. Establishes the basic human rights framework applicable to AI	High relevance. Defines data protection standards applicable to AI systems	Very high relevance. First comprehensive legislation on AI worldwide	High relevance. Provides a global ethical framework for the development of AI	Medium relevance. Establishes the national legal framework applicable to AI
References of documentary analysis	Universal Declaration of Human Rights (United Nations, 1948)	General Data Protection Regulation (European Parliament and Council of the European Union, 2016)	Artificial Intelligence Act (European Parliament and Council of the European Union, 2024)	UNESCO Recommendation on the Ethics of Artificial Intelligence [AI] (2021)	- Mexican legislation on technology and human rights: Political Constitution of the United Mexican States (articles 6 and 16) (Chamber of Deputies, 2024). Federal Law on the Protection of Personal Data Held by Private Parties (Chamber of Deputies, 2010). General Law on the Protection of Personal Data Held by Obligated Subjects (Chamber of Deputies, 2017). Federal Telecommunications and Broadcasting Law (Chamber of Deputies, 2021). National Digital Strategy 2021-2024 (Official Gazette of the Federation, 2021, September 6). - Legislative initiatives in process: Initiative that reforms and adds various provisions to the Science and Technology Law and the General Health Law (Chamber of Deputies, 2020, April 28).

					Initiative that issues the Law that creates the University of Information, Communications and Innovation Technologies (Chamber of Deputies, 2020, August 12). Initiative that reforms and adds various provisions to the Science and Technology Law (Chamber of Deputies, 2021, January 7). Initiative that adds article 77 Bis to the General Health Law (Senate of the Republic, 2021, January 13). Proposed reform to create the National Strategy for the Appropriate and Ethical Use of Artificial Intelligence (Chamber of Deputies, 2024, February 25). Proposal for the National Artificial Intelligence Agenda for Mexico 2024-2030 (Senate of the Republic, 2024, May 15).

Source: Prepared by the authors using the documentary analysis technique, using NVivo software (version 14)

Table 2. Integrated analysis (documentary and content) on the regulation of artificial intelligence (AI) to guarantee human rights in Mexico

Key topic / Main node	Regulatory framework	Data protection and privacy	Algorithmic biases	Impact on the labor market	Public perception	Ethics and values
Subtopics / Subnodes	- Specific legislation - Protection of rights - International comparison	- Informed consent - Transparency - Data security	- Discrimination - Equity - Systems audit	- Automation - New skills - Job displacement	- Knowledge about AI - Concerns - Trust in technologies	- Human dignity - Welfare - Non-maleficence
References of documentary analysis	Inclusive and multidisciplinary AI governance (UNESCO, 2021). Harmonised rules for AI systems in the European Union (European Parliament and Council of the EU, 2024)	Personal data protection and transparency (European Parliament and Council of the European Union, 2024)	Bias testing in AI and combating stereotypes (European Parliament and Council of the European Union, 2024; UNESCO, 2021)	Right to work and assessment of the impact of AI on employment (UN, 1948; UNESCO, 2021)	Raising awareness on AI advances, opportunities and challenges (UNESCO, 2021)	Ethical governance of AI with multi-stakeholder participation and respect for fundamental rights (UNESCO, 2021; European Parliament and Council of the European Union, 2024)
	Mexico lacks concrete legislation that regulates the development and use of AI, and that addresses the ethical and legal challenges of this technology (Maqueo et al., 2021; Ortega, 2024), although there are government proposals and legislative initiatives underway (Villanueva, et al., 2024).	This regulatory gap has contributed to the increase in complaints about privacy violations in 2021 and 2022 (INAI, 2021, 2022, 2023).	There is a significant risk of algorithmic bias in these systems, which could lead to discrimination in selection processes (INAI, 2021, 2022, 2023)	The adoption of AI in various sectors is transforming the Mexican labor market (IFT, 2023, 2022b)	Only 30.3% of users know or have heard anything about AI" (IFT, 2022a)	AI systems must be designed and developed in a way that respects the autonomy and fundamental rights of individuals (UNESCO, 2021)
References of content analysis	Artificial intelligence and legislation: a necessary balance (Güicho, 2024): The Universal Artificial intelligence and the future of law (Méndez & Sánchez, 2023): Links	60% of Mexicans are unaware that Artificial Intelligence is trained with personal data (Riquelme, 2024): The Economist	Beyond algorithms: challenges and trends in the global regulation of Artificial Intelligence (Ortiz, 2023): El Economista	How to prevent artificial intelligence from discriminating, creating more workload and more control over the employee (Pascual, 2023): The Country	The Internet era and the promise of artificial intelligence (Legaspi, 2014). The Financier	Large companies are looking for ways to ensure ethical and legal development of artificial intelligence (Lemon, 2023): The Country.
Word frequency	1. Regulation 2. AI 3. Legislation 4. Ethics 5. Rights	1. Data 2. Privacy 3. Protection 4. Consent 5. Security	1. Biases 2.Discrimination 3 Equity 4. Audit 5. Algorithms	1. Skills 3. Automation 4. Market 5. Retraining	1. Knowledge 2. Awareness 3. Education 4. Concerns 5. Confidence	1. Ethics 2. Values 3. Dignity 4. Rights 5. Well-being
Conceptual relationship map	Strong relationships with: - Ethics and values - Data protection - Algorithmic biases	Strong relationships with: - Regulatory framework - Ethics and values - Public perception	Strong relationships with: - Ethics and values - Impact on the labor market - Regulatory framework	Strong relationships with: - Algorithmic biases - Public perception - Ethics and values	Strong relationships with: - Ethics and values - Data protection - Impact on the labor market	Strong relationships with: - Regulatory framework - Data protection - Algorithmic biases

Comparing encoding between documents	Greater presence in: European Parliament and Council of the European Union (2024); UNESCO. (2021). Minor presence in: United Nations Organization (1948)	Greater presence in: European Parliament and Council of the European Union (2016); UNESCO. (2021). Minor presence in: United Nations Organization (1948)	Increased presence in: UNESCO. (2021) Minor presence in: United Nations Organization (1948)	Greater presence in: UNESCO. (2021). Minor presence in: United Nations (1948); European Parliament and Council of the European Union (2016)	Greater presence in: UNESCO. (2021). Minor presence in: United Nations (1948); European Parliament and Council of the European Union (2016)	Greater presence in: UNESCO. (2021). Present in all documents
Findings/ patterns	Significant gap in AI regulation in Mexico	Increase in complaints about privacy violations	Risks of bias in AI systems, especially in hiring	Transformation of the labour market, need for new skills	Low public awareness of AI, privacy concerns	Need for ethical principles in the development and use of AI
Discrepancies	Variations in the proposed regulatory approach (binding vs. voluntary)	Data protection and privacy	Variations in emphasis on specific rights	Different perspectives on the degree of labor disruption	Variations in proposed educational approaches	Variations in the priority given to ethical considerations
Thematic coding	Need for specific regulation for AI	Guarantees for the protection of personal data	Preventing algorithmic discrimination	AI transforming employment	Need for public education on AI	Ethical principles for the development of AI
Recommendations	Develop a specific regulatory framework for AI (with ethical impact assessments)	Implement robust data protection measures, including privacy impact assessments	AI audits, diversity in development teams, and equity impact assessments	Requalification programs, continuing education and just transition policies	Awareness campaigns, AI education and public dialogue on AI ethics	Develop ethical frameworks, ethical impact assessments and participatory governance of AI
Relevance to AI and human rights	High relevance. Regulation is essential to ensure that AI respects human rights. Documents from UNESCO (2021) and the European Parliament and Council of the European Union (2024) provide guidelines for the ethical governance of AI and protect human rights	High relevance. Data protection as a fundamental right in the era of AI (European Parliament and Council of the EU, 2016; UNESCO, 2021)	High relevance. Preventing bias in AI to protect equality and human rights (UN, 1948; UNESCO, 2021; European Parliament and Council of the European Union, 2024)	Medium-high relevance. Protection of labor rights in the face of the transformation of employment by AI (UN, 1948; UNESCO, 2021).	Medium relevance. Public education on AI crucial to exercising digital rights (UNESCO, 2021; implicitly related to UN, 1948)	High relevance. AI ethical principles aligned with human dignity and human rights (UN, 1948; UNESCO, 2021; European Parliament and Council of the EU, 2024)

Source: Prepared by the authors using the documentary analysis technique, using NVivo software (version 14).