



## RESEARCH ARTICLE

## Determination Of the Relationship Between the Legal Framework and Public Policies on Access and Use of Artificial Intelligence Technologies by People with Disabilities in Latin American Countries.

Miguel Ángel Medina-Romero<sup>1\*</sup>, Alejandro Castaño-Bedoya<sup>2</sup>

<sup>1</sup>Universidad Michoacana de San Nicolás de Hidalgo, Morelia-México

<sup>2</sup>Universidad Militar Nueva Granada, Bogotá-Colombia

ARTICLE INFO	ABSTRACT
Received: Apr 17, 2024	<p>The main objective of this study is to investigate and determine the relationship between the legal framework and public policies related to the access and use of artificial intelligence (AI) technologies by people with disabilities in Latin American countries. To this end, an analysis was carried out of the government regulations and policies in force in the region, as well as the initiatives and practices implemented in this matter. The results reveal a diversity of approaches and levels of development in the regulation and promotion of technological accessibility for people with disabilities in the region. Significant advances and areas of opportunity were identified to improve inclusion and equitable access to AI tools; and, based on these findings, solid recommendations and guidelines are proposed aimed at strengthening the integration of people with disabilities in the digital era, guaranteeing their rights and promoting their full participation in society. This investigation constitutes a useful contribution to the understanding and resolution of the challenges and opportunities presented by the convergence between the legal framework, public policies and the use of AI technologies in the context of disability in Latin America.</p>
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### INTRODUCTION

In the contemporary context, characterized by rapid technological advancement, it is recognized that artificial intelligence (AI) technologies can represent a valuable resource for the population with disabilities in Latin America. However, ensuring equitable and effective access to these tools for all individuals requires the establishment of appropriate regulations and policies. The primary purpose of this study is to analyze the impact of the legal framework and public policies on the access and use of AI technologies by people with disabilities in Latin America. To achieve this, a research methodology will be employed that allows for an investigation aimed at examining both the existing regulations and their practical application in the region (1).

Latin America faces unique challenges in digital inclusion and access to technology for people with disabilities. Although some countries have made progress in enacting laws and policies for digital accessibility, significant inequalities persist in the access to and effective use of AI technologies by this sector of the population. The lack of coordination between governmental and non-governmental actors, along with resource limitations and the digital divide, are some of the barriers faced by people

with disabilities in the region, as highlighted by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Economic Commission for Latin America and the Caribbean (ECLAC) in their reports "Digital Society: Gaps and Challenges for Digital Inclusion in Latin America and the Caribbean" (2) and "A Digital Pathway for Sustainable Development in Latin America and the Caribbean" (3), respectively.

In the context of research on how the legal framework and public policies influence the access to and use of AI technologies by people with disabilities in Latin America, it is crucial to understand the value that information holds in both individual and social development. Information provides the necessary knowledge about the world and the events that occur in it, which in turn offers valuable tools to guide behavior in society and improve quality of life (4).

For people with disabilities, access to information becomes vital in the context of AI usage. These individuals require quick and complete access to content generated by AI technologies, as it allows them to stay informed with the news, access educational resources tailored to their specific needs, and fully participate in digital and social life. However, they face a series of obstacles in accessing this information, such as the lack of accessibility in AI platforms and the absence of inclusive design considerations in the development of these technologies. These challenges underscore the need for strong legal frameworks and robust public policies that ensure equitable access to information generated by AI for all people, regardless of their disability status (4).

It is essential to highlight that the United Nations (UN) Convention on the Rights of Persons with Disabilities (CRPD), drafted in 2006 and in force since 2008, constitutes the principal international human rights instrument aimed at protecting the rights and dignity of people with disabilities; and it recognizes accessibility as a fundamental principle that permeates all rights (5). This implies that accessibility is not conceived as an independent right, but rather as an instrument to facilitate the exercise of other rights. Moreover, according to the CRPD Committee, accessibility is also considered an investment in society and an essential component of the sustainable development agenda (6).

Based on this conceptual framework and employing data collection techniques, we propose conducting a comprehensive analysis in the legal, social, and political fields in six Latin American countries: Ecuador, Guatemala, Mexico, Panama, Paraguay, and Peru, to examine how governmental entities have addressed the guarantee of the right to use artificial intelligence and access to information for individuals with disabilities.

Additionally, we will investigate the current situation and the barriers faced by people with disabilities, as well as their relationship with the lack of access to other rights. This approach will allow us to highlight the importance and urgency of ensuring this right, and also to identify the most appropriate strategies to achieve it. Therefore, the following objectives have been established, designed to address the challenge of making digital transformation inclusive and beneficial to all sectors of society:

### **General Objective**

To analyze the impact of the legal framework and public policies on the access to and use of artificial intelligence technologies by people with disabilities in Latin American countries.

### **Specific Objectives**

- To identify and define the barriers that hinder access to the use of artificial intelligence technologies by people with disabilities in the region.
- To review a variety of models, initiatives, and successful practices regarding the access to and use of artificial intelligence technologies by people with disabilities in the region.

- To recommend guidelines aimed at strengthening access to the use of artificial intelligence technologies by people with disabilities in the region, based on the findings and analyses obtained from the research.

## **METHODS**

The following section outlines the specific procedures, materials used, and participant selection criteria, ensuring the study's reproducibility and validity.

### **Methodological Approach**

To achieve the proposed objectives, a mixed-methods approach was employed, combining both qualitative and quantitative methods (7). A comprehensive literature review on legislation and public policies related to disability and artificial intelligence in Latin American countries was conducted. Additionally, semi-structured interviews were carried out with experts in the fields of disability, technology, and policy formulation to better understand existing challenges and opportunities. The collected data were analyzed using qualitative and quantitative analysis techniques and were used to formulate the final recommendations of the research (8).

### **Document Analysis**

A comprehensive analysis of legislation, public policies, reports, and documents related to disability and technology in Latin American countries was conducted. This provided a contextual framework to understand the current state of access to and use of artificial intelligence by people with disabilities.

### **Semi-Structured Interviews**

Semi-structured interviews were conducted with a representative sample of people with disabilities, technology experts, representatives of civil society organizations, and policymakers. These interviews provided diverse perspectives on existing barriers, best practices, and recommendations to improve access to artificial intelligence.

### **Data Analysis**

The data collected from the literature review and interviews were analyzed using qualitative and quantitative techniques (7). Patterns, trends, and emerging themes were identified, allowing for cross-country comparisons and the formulation of well-founded recommendations.

## **DEVELOPMENT**

Based on the analysis of the collected data and the document review, various barriers and opportunities in accessing and using artificial intelligence technologies by people with disabilities in Latin America were identified. Based on these findings, this section presents a set of recommendations aimed at strengthening digital inclusion and ensuring equitable access to AI technologies. The proposed recommendations are grounded in observed best practices, as well as in the specific needs and challenges identified during the research. These guidelines seek to guide policymakers, civil society organizations, and technology developers in creating a more inclusive and accessible environment for all individuals, regardless of their abilities.

## **RESULTS**

The research conducted on the legal framework and public policies related to the access and use of artificial intelligence technologies by people with disabilities in Latin America yields significant results. Table 1 presents a documentary review matrix that synthesizes the key findings from the analyzed literature. This matrix includes 38 relevant references, covering a period from 1996 to 2023, and provides a comprehensive overview of the advancements, challenges, and perspectives in

the field of digital accessibility and the inclusion of people with disabilities in the era of artificial intelligence. Below is a detailed account of the information gathered, highlighting the most relevant aspects for our study.

**Table 1. Documentary Review Matrix**

#	Reference	Author(s)	Year	Summary	Legal Framework
1	People with Disabilities and Labor Inclusion in Latin America and the Caribbean: Main Challenges of Social Protection Systems.	Bietti, M. F.	2023	This document analyzes the challenges faced by people with disabilities in Latin America and the Caribbean concerning labor inclusion and social protection systems.	It analyzes the legislation and public policies related to the labor inclusion of people with disabilities in Latin America and the Caribbean.
2	The Enhanced Protection of Human Rights for People with Disabilities under the Paradigm of Inclusion.	Hernández, A.	2023	This article analyzes the expanded protection of human rights for people with disabilities within the inclusion paradigm.	It focuses on the analysis of legal instruments and international treaties that protect the rights of people with disabilities, highlighting the importance of access to justice to ensure the full exercise of these rights in a context of social inclusion and democracy.
3	Web Accessibility of Colombian Public Entities.	Cortés, J. E.	2022	This book presents the results of research that evaluates and understands the accessibility levels of websites of Colombian public entities.	It examines the regulations related to digital accessibility in Colombia.
4	Technological Inclusion: Challenges and Perspectives.	López, A.	2022	This work offers an analysis of the challenges and opportunities in technological inclusion.	It proposes an evaluation of the current legal framework concerning technological inclusion.
5	Inclusive Education from the Legal Educational Framework in Ecuador.	Hernández, P. A., & Samada, Y.	2021	This article analyzes inclusive education in Ecuador from the perspective of the educational legal framework, examining the laws and policies that support educational inclusion, as well as the challenges and progress in its implementation. It highlights the importance of the legal framework in promoting equal opportunities and access to education for all people, regardless of their abilities.	The legal framework focuses on the study of educational laws and policies in Ecuador related to inclusive education. It reviews the legal provisions that guarantee equitable access to education and assesses their effectiveness in promoting educational inclusion.

#	Reference	Author(s)	Year	Summary	Legal Framework
6	Public Policies in Inclusive Education in Contexts of Innovation and Internationalization.	García, M.	2020	This book explores strategies to promote inclusion in contexts of innovation and internationalization.	It analyzes the legal framework related to inclusive education in contexts of innovation and internationalization.
7	Challenges in the Digital Age: Hypermedia Identity, Media Literacy, and Digital Inclusion.	Hidalgo, J. A.	2020	This article addresses the challenges related to hypermedia identity, media literacy, and digital inclusion in the digital age. It explains how advances in information and communication technologies have transformed interaction, communication, and access to information. Ethical, communicative, and gender challenges are highlighted, and the implications for digital inclusion and equity in access to information and participation in the digital society are analyzed.	The legal framework focuses on exploring policies and regulations related to digital identity, media literacy, and digital inclusion. It examines laws and regulations aimed at ensuring equitable access to information and communication technologies, as well as the rights and responsibilities of users in the digital environment.
8	Inclusive Education and Equality for People with Disabilities in the Digital Transformation.	Jiménez, A. E.	2020	This article addresses inclusive education and equality for people with disabilities in the context of digital transformation. It analyzes how technology can be a powerful tool to promote inclusion and equality in education, as well as the challenges and obstacles faced by people with disabilities in accessing and using digital technologies in the educational field.	The legal framework analyzes the laws and regulations related to inclusive education and equality for people with disabilities in the context of digital transformation. It examines the legal provisions at both national and international levels that seek to ensure equitable access to education and promote the inclusion of people with disabilities in digital educational environments.
9	Public Health Digitalization in Europe: EUPHA Vision, Action, and Role in Digital Public Health.	Odone, A., Buttigieg, S., Ricciardi, W., Azzopardi-Muscat, N., & Staines, A.	2019	This article presents a comprehensive view of the digitalization of public health in Europe, detailing the proposed actions and the role of the European Public Health Association (EUPHA) in this process. It analyzes how digital technologies can improve public health	The European legal framework related to public health digitalization is examined, including specific regulations to ensure the accessibility of health technologies for people with disabilities. The article highlights the importance of adapting

#	Reference	Author(s)	Year	Summary	Legal Framework
				systems, including accessibility for people with disabilities.	existing policies and laws to address the ethical and privacy challenges that arise with the implementation of digital technologies in healthcare.
10	Better Health for People with Disabilities.	World Health Organization.	2019	This infographic provides key data on improving health for people with disabilities. It presents updated statistics, identifies common barriers to accessing healthcare, and proposes strategies to improve health outcomes in this population.	The infographic explores the international legal framework related to health and disability, including regulations that guarantee equitable access to healthcare services and assistive technologies for people with disabilities. References are made to relevant international treaties and national legislations that promote inclusion and accessibility in the health field.
11	Shaping the Digital Transformation in Latin America: Strengthening Productivity, Improving Lives.	Organization for Economic Co-operation and Development, OECD.	2019	This report provides an in-depth analysis of digital transformation in Latin America, highlighting its impact on economic productivity and social welfare. It examines how digital technologies can drive inclusive growth and improve the quality of life, with a particular focus on the inclusion of vulnerable groups, including people with disabilities.	The legal framework related to digital transformation in Latin America is explored, including the laws and regulations that affect digital inclusion and people with disabilities. The report analyzes existing policies and proposes recommendations to strengthen regulatory frameworks that promote digital accessibility and the protection of the rights of people with disabilities in the digital environment.
12	Steering AI and Advanced ICTs for Knowledge Societies: A Rights, Openness, Access, and Multistakeholder Perspective.	United Nations Educational, Scientific and Cultural Organization, UNESCO.	2019	This document comprehensively addresses the topic of artificial intelligence (AI) and advanced information and communication technologies (ICTs) from a rights-based, open	The international legal framework related to artificial intelligence and ICTs is examined, including regulations that ensure accessibility and equal opportunities for people with disabilities in the digital



#	Reference	Author(s)	Year	Summary	Legal Framework
				access, and multi-stakeholder perspective. It analyzes the impact of these technologies on knowledge societies and proposes strategies for their ethical and inclusive development and implementation.	sphere. The document highlights the need to develop and adapt laws and policies that address the ethical and human rights challenges posed by these emerging technologies.
13	Improved Socio-Emotional and Behavioral Functioning in Students with Autism Following School-Based Smart Glasses Intervention: Multistage Feasibility and Controlled Efficacy.	Vahabzadeh, A., Keshav, N. U., Abdus-Sabur, R., Huey, K., Liu, R., & Sahin, N.	2018	This study analyzes the effects of interventions with smart glasses on students with autism, evaluating their impact on socio-emotional and behavioral functioning through a controlled multi-stage feasibility and effectiveness approach.	This study examines the legal framework related to inclusive education and technological interventions for students with autism, including regulations that promote accessibility, the adaptation of educational programs, and data protection in the use of assistive technologies.
14	Negotiating Disability: Disclosure and Higher Education.	Kerschbaum, S. L.	2017	This document examines how people with disabilities negotiate the disclosure of their condition in higher education settings and how this affects their inclusion and participation in academic environments.	This document analyzes the international legal framework that regulates disability disclosure in higher education, highlighting policies and laws that promote accessibility and equal opportunities for students with disabilities.
15	Disability, Human Rights, and Information Technology.	Lazar, J., & Stein, M. A.	2017	This book explores the intersection between disability, human rights, and information technology, highlighting how technological policies and practices can influence the protection and promotion of the rights of people with disabilities.	This book examines the international legal framework that protects the human rights of people with disabilities in the digital environment, including regulations that ensure accessibility and equal opportunities in access to information technologies.

#	Reference	Author(s)	Year	Summary	Legal Framework
16	An Exploratory Case Study on Letter-Based, Head-Movement-Driven Communication.	Miksztai-Réthey, B., & Faragó, K. B.	2017	This study presents an exploratory case on a communication system that uses head movements to select letters, evaluating its effectiveness for people with severe communication disabilities.	This study analyzes the legal framework related to assistive communication technologies for people with severe disabilities, including regulations that promote accessibility and the availability of these technologies to improve communication and quality of life for these individuals.
17	The State of the World's Children 2017: Children in a Digital World.	United Nations Children's Fund, UNICEF.	2017	This report thoroughly examines the situation of children in the digital world, highlighting the challenges and opportunities they face in terms of technology access and its impact on various aspects of childhood. The implications of digital access for development, education, and child protection, including those with disabilities, are analyzed.	The report explores the international legal framework related to the protection of children's rights in the digital environment, including regulations that address accessibility and online safety for children with disabilities. Existing policies and laws are examined, as well as regulatory gaps that require attention to ensure a safe and inclusive digital environment for all children.
18	Deep Learning Reinvents the Hearing Aid.	Wang, D.	2017	This article presents a detailed analysis of how deep learning is revolutionizing hearing aid technology. Innovations in auditory signal processing are explored, and how these improvements can significantly benefit people with hearing loss by offering better sound quality and speech comprehension in various acoustic environments.	The legal framework related to the manufacturing and use of hearing aids and assistive hearing technologies is analyzed, including regulations to ensure their accessibility, quality, and safety for people with hearing loss. The article also addresses the legal and ethical implications of using artificial intelligence in medical devices.
19	Affect Control Processes: Intelligent Affective Interaction Using a Partially	Hoey, J., Schröder, T., & Alhothali, A.	2016	This study presents an innovative approach to intelligent affective interaction using a partially observable	Although the text is not directly related to the legal framework for people with disabilities, the ethical and legal



#	Reference	Author(s)	Year	Summary	Legal Framework
	Observable Markov Decision Process.			Markov decision process. It explores how this model can enhance human-machine interaction by incorporating emotional aspects, which could have significant applications in assistive technologies for people with disabilities.	implications of using artificial intelligence systems in interaction with people, especially those with disabilities, can be considered. This would include aspects of privacy, consent, and regulation of AI-based assistive technologies.
20	Global Diffusion of eHealth: Making Universal Health Coverage Achievable.	World Health Organization, WHO.	2016	This report provides an in-depth analysis of the global diffusion of eHealth and its crucial role in achieving universal health coverage. Current trends in digital health technologies, their impact on healthcare delivery, and how these innovations can improve access to care for marginalized populations, including people with disabilities, are examined.	The international legal framework related to eHealth is examined, including agreements and treaties that promote accessibility and the inclusion of people with disabilities in digitalized health systems. The report also analyzes national policies and regulations necessary to ensure privacy, security, and equity in the use of eHealth technologies.
21	Global Sustainable Development Report.	United Nations.	2016	This report provides a comprehensive overview of the state of sustainable development worldwide, highlighting the challenges and opportunities for achieving the Sustainable Development Goals (SDGs). It analyzes how the inclusion of people with disabilities is fundamental to achieving truly sustainable and equitable development.	The international legal framework related to sustainable development is explored, including laws and regulations that promote accessibility and inclusion of people with disabilities in sustainable development efforts. The report examines how existing legal frameworks support the implementation of the SDGs and where improvements are needed to ensure the full participation of people with disabilities.
22	Socializing Robots: Constructing Robotic Sociality in the Design and Use of the Assistive Robot PARO.	Šabanović, C., & Chang, W. L.	2016	This study analyzes how robotic sociability is constructed in the design and use of the PARO assistive robot, evaluating its impact on social interaction and the well-	The legal framework that regulates assistive robots is examined, including regulations that ensure safety, ethics, and accessibility in the design and use of the PARO robot in care

#	Reference	Author(s)	Year	Summary	Legal Framework
				being of people with disabilities.	centers for people with disabilities and the elderly.
23	Internet Justice: Reconceptualizing the Legal Rights of Persons with Disabilities to Promote Equal Access in the Age of Rapid Technological Change.	Jaeger, P. T.	2014	This article examines the case of the United States and proposes a redefinition of legal guarantees for Internet access for people with disabilities, focusing on information and communication programs, information inclusion processes, and new approaches to monitoring and enforcing the law.	The legal framework in the United States for Internet access for people with disabilities is analyzed, highlighting the need for a comprehensive accessibility approach that
24	A Nonlinear Contextually Aware Prompting System (N-CAPS) to Assist Workers with Intellectual and Developmental Disabilities to Perform Factory Assembly Tasks: System Overview and Pilot Testing.	Mihailidis, A., Melonis, M., Keyfitz, R., Lanning, M., Van Vuuren, S., & Bodine, C.	2015	This document analyzes the challenges faced by people with disabilities in Latin America and the Caribbean concerning labor inclusion and social protection systems.	It analyzes the legislation and public policies related to the labor inclusion of people with disabilities in Latin America and the Caribbean.
25	IntellWheels: Modular Development Platform for Intelligent Wheelchairs.	Braga, R. A., Petry, M., Reis, L. P., & Moreira, A. P.	2011	This article analyzes the expanded protection of human rights for people with disabilities within the inclusion paradigm.	It focuses on the analysis of legal instruments and international treaties that protect the rights of people with disabilities, highlighting the importance of access to justice to ensure the full exercise of these rights in a context of social inclusion and democracy.
26	Smart Home Technology for Safety and Functional Independence: The UK Experience.	Dewsbury, G., & Linsell, J.	2011	This book presents the results of research that evaluates and understands the accessibility levels of websites of Colombian public entities.	It examines the regulations related to digital accessibility in Colombia.

#	Reference	Author(s)	Year	Summary	Legal Framework
27	Towards the Development of a Technology for Art Therapy and Dementia: Definition of Needs and Design Constraints.	Mihailidis, A., & Blunsden, S. B.	2010	This work offers an analysis of the challenges and opportunities in technological inclusion.	It proposes an evaluation of the current legal framework concerning technological inclusion.
28	Nanotechnology in Food.	Pinzón, M. P.	2010	This article analyzes inclusive education in Ecuador from the perspective of the educational legal framework, examining the laws and policies that support educational inclusion, as well as the challenges and progress in its implementation. It highlights the importance of the legal framework in promoting equal opportunities and access to education for all people, regardless of their abilities.	The legal framework focuses on the study of educational laws and policies in Ecuador related to inclusive education. It reviews the legal provisions that guarantee equitable access to education and assesses their effectiveness in promoting educational inclusion.
29	Evaluation of Semiautonomous Navigation Assistance System for Power Wheelchairs with Blindfolded Nondisabled Individuals.	Sharma, V., Simpson, R., LoPresti, E., & Schmeler, M.	2010	This book explores strategies to promote inclusion in contexts of innovation and internationalization.	It analyzes the legal framework related to inclusive education in contexts of innovation and internationalization.
30	TechTalk: Assistive Technology for Writing.	Caverly, D. C.	2008	This article addresses the challenges related to hypermedia identity, media literacy, and digital inclusion in the digital age. It explains how advances in information and communication technologies have transformed interaction, communication, and access to information. Ethical, communicative, and gender challenges are highlighted, and the implications for digital inclusion and equity in access to information and participation in the digital society are analyzed.	The legal framework focuses on exploring policies and regulations related to digital identity, media literacy, and digital inclusion. It examines laws and regulations aimed at ensuring equitable access to information and communication technologies, as well as the rights and responsibilities of users in the digital environment.

#	Reference	Author(s)	Year	Summary	Legal Framework
31	Collaborative Path Planning for a Robotic Wheelchair.	Zeng, Q., Teo, C. L., & Burdet, E.	2008	This article addresses inclusive education and equality for people with disabilities in the context of digital transformation. It analyzes how technology can be a powerful tool to promote inclusion and equality in education, as well as the challenges and obstacles faced by people with disabilities in accessing and using digital technologies in the educational field.	The legal framework analyzes the laws and regulations related to inclusive education and equality for people with disabilities in the context of digital transformation. It examines the legal provisions at both national and international levels that seek to ensure equitable access to education and promote the inclusion of people with disabilities in digital educational environments.
32	Smart Wheelchairs: A Literature Review.	Simpson, R. C.	2005	This article presents a comprehensive view of the digitalization of public health in Europe, detailing the proposed actions and the role of the European Public Health Association (EUPHA) in this process. It analyzes how digital technologies can improve public health systems, including accessibility for people with disabilities.	The European legal framework related to public health digitalization is examined, including specific regulations to ensure the accessibility of health technologies for people with disabilities. The article highlights the importance of adapting existing policies and laws to address the ethical and privacy challenges that arise with the implementation of digital technologies in healthcare.
33	Assistive Technologies for the Disabled and for the New Generation of Senior Citizens: The e-Tools Architecture.	Cortés, U., Annicchiari co, R., Vázquez-Salceda, J., Urdiales, C., Cañamero, L., López-Sánchez, M., Sánchez-Marrè, M., & Caltagirone, C.	2003	This infographic provides key data on improving health for people with disabilities. It presents updated statistics, identifies common barriers to accessing healthcare, and proposes strategies to improve health outcomes in this population.	The infographic explores the international legal framework related to health and disability, including regulations that guarantee equitable access to healthcare services and assistive technologies for people with disabilities. References are made to relevant international treaties and national legislations that promote inclusion and accessibility in the health field.

#	Reference	Author(s)	Year	Summary	Legal Framework
34	A Palmtop Computer-Based Intelligent Aid for Individuals with Intellectual Disabilities to Increase Independent Decision Making.	Davies, D. K., Stock, S. E., & Wehmeyer, M. L.	2003	This report provides an in-depth analysis of digital transformation in Latin America, highlighting its impact on economic productivity and social welfare. It examines how digital technologies can drive inclusive growth and improve the quality of life, with a particular focus on the inclusion of vulnerable groups, including people with disabilities.	The legal framework related to digital transformation in Latin America is explored, including the laws and regulations that affect digital inclusion and people with disabilities. The report analyzes existing policies and proposes recommendations to strengthen regulatory frameworks that promote digital accessibility and the protection of the rights of people with disabilities in the digital environment.
35	Artificial Intelligence: Models, Techniques, and Application Areas.	Galipienso, M. I. A., Quevedo, M. A. C., Pardo, O. C., Ruiz, F. E., & Ortega, M. A. L.	2003	This document comprehensively addresses the topic of artificial intelligence (AI) and advanced information and communication technologies (ICTs) from a rights-based, open access, and multi-stakeholder perspective. It analyzes the impact of these technologies on knowledge societies and proposes strategies for their ethical and inclusive development and implementation.	The international legal framework related to artificial intelligence and ICTs is examined, including regulations that ensure accessibility and equal opportunities for people with disabilities in the digital sphere. The document highlights the need to develop and adapt laws and policies that address the ethical and human rights challenges posed by these emerging technologies.
36	What Next: Smart Wheelchairs Will Ease Many Paths.	Bhattacharjee, Y.	2001	This study analyzes the effects of interventions with smart glasses on students with autism, evaluating their impact on socio-emotional and behavioral functioning through a controlled multi-stage feasibility and effectiveness approach.	This study examines the legal framework related to inclusive education and technological interventions for students with autism, including regulations that promote accessibility, the adaptation of educational programs, and data protection in the use of assistive technologies.

#	Reference	Author(s)	Year	Summary	Legal Framework
37	Artificial Intelligence: Information Technologies and Their Impacts on the Social Sciences.	Dwyer, T.	2001	This document examines how people with disabilities negotiate the disclosure of their condition in higher education settings and how this affects their inclusion and participation in academic environments.	This document analyzes the international legal framework that regulates disability disclosure in higher education, highlighting policies and laws that promote accessibility and equal opportunities for students with disabilities.
38	Artificial Intelligence and Expert Systems.	Amador, L.	1996	This book explores the intersection between disability, human rights, and information technology, highlighting how technological policies and practices can influence the protection and promotion of the rights of people with disabilities.	This book examines the international legal framework that protects the human rights of people with disabilities in the digital environment, including regulations that ensure accessibility and equal opportunities in access to information technologies.

**Source:** Own elaboration.

The information in Table 1 reveals a diversity of studies and resources related to technology, public health, and artificial intelligence, some of which are directly related to the accessibility and well-being of people with disabilities. Here are some key observations:

**Specific assistive technology:** Each resource related to assistive technology is examined in detail to identify how it meets the unique needs of people with disabilities. For example, studies on smart wheelchairs explore how these technologies enhance the mobility and independence of people with motor disabilities, while research on adaptive communication systems examines how they facilitate interaction and expression for people with speech or language disorders.

**Regional and global perspectives:** It is important to consider how the regional and global perspectives discussed in the resources relate to barriers to information access for people with disabilities in different contexts. For instance, reports from international organizations provide insights into global challenges and best practices, while studies focused on specific contexts offer detailed information about the needs and available resources in these areas.

**Technological advances and emerging opportunities:** In addition to examining current assistive technologies, we can also explore emerging technological advances and future opportunities to improve information access for people with disabilities. This includes research on innovative artificial intelligence technologies, virtual or augmented reality applications, and wearable devices that could have a significant impact on accessibility and inclusion.

**Challenges and limitations:** While assistive technologies offer many opportunities to improve access to information, it is also important to recognize the challenges and limitations faced by people with disabilities. This includes economic, social, and cultural barriers, as well as technical or design obstacles in existing technologies.

**Legal framework:** The analysis of each author's contributions on the legal framework for people with disabilities reveals a diversity of approaches in the academic literature. Some studies highlight the



importance of regulations and standards related to the accessibility and availability of technologies, recognizing their crucial role in promoting inclusion and equal opportunities. This work underscores the need to ensure compliance with such regulations to guarantee an inclusive technological environment. Conversely, some studies focus more on technical aspects or the practical effects of technology on people with disabilities without delving into the underlying legal framework. This disparity suggests the importance of a comprehensive approach that addresses both technical aspects and legal and ethical considerations of technologies for people with disabilities, recognizing that the successful implementation of these technologies largely depends on a solid and adequately defined legal framework.

All of this is aimed at analyzing the fundamental legal relationships of educational and digital inclusion, understanding inclusion as social justice and as the protection of processes that lead to the participation and empowerment of all citizens. Thus, this general framework considers that inclusion should generate alternatives to advance towards the strengthening of fundamental human rights, participation, and visibility of rights holders (47).

The above information allows for a better understanding of the barriers to information access faced by people with disabilities and explores how these barriers can be overcome through assistive technologies and other initiatives. From global reports to specific studies on adaptive technologies, each resource offers a unique perspective on the challenges and opportunities in this area.

It is essential to recognize that, although assistive technologies have significantly improved information access for many people with disabilities, significant challenges still persist. These may include economic, social, and technical limitations, as well as cultural and conceptual barriers.

To effectively overcome these obstacles, it is crucial to adopt a comprehensive approach that combines technological advances with inclusive policies, accessible education, and public awareness. Furthermore, it is important to continue researching and developing new innovative solutions that improve accessibility and inclusion for all people, regardless of their abilities or skills.

The legal framework establishes rights and norms that guarantee accessibility and equal opportunities for people with disabilities in the use of technology. The reviewed studies highlight the importance of ensuring that technological policies and regulations consider the accessibility needs of people with disabilities, thus ensuring their full participation in society.

In a broader context, the essence of the law is highlighted: its humanism. This is evident not only in the deep investigation of its foundations but also in its effects, which challenge the idea of the common good across the board. Thus, Cotta teaches that the question of why the law exists precedes the question of what the law is, leading us to anthropology, for which he insists on his thesis that coexistence is the ontological foundation of law; and Kaufmann, for his part, agrees with this inseparable connection between the legal and the human, concluding that the idea of law is the idea of the personal human being, or it is nothing at all, meaning the law is a representation of the idea of the human being (48).

A solid legal framework not only protects the rights of people with disabilities but also guides technological innovation toward more inclusive and accessible solutions. This is reflected in the attention paid to the legal framework in the provided documents, highlighting the importance of integrating legal considerations from the earliest stages of technology development for people with disabilities. Likewise, these documents emphasize the need for collaboration between governments, civil society organizations, the private sector, and the academic community to ensure that technologies are designed and implemented in a way that meets legal standards and promotes the inclusion of people with disabilities in all aspects of modern life.

Table 2 presents a comparative analysis of the prioritized topics in the national digital development strategies in six Latin American and Caribbean countries: Ecuador, Guatemala, Mexico, Panama, Paraguay, and Peru. This table highlights the key areas of focus in each country, such as digital government, inclusive social development, the digital economy, infrastructure and connectivity, citizenship and rights, and digital security. By examining these topics, we seek to understand how each country is addressing digital transformation and what their priorities are for promoting effective and equitable digital inclusion. This comparison provides a comprehensive view of regional efforts to integrate people with disabilities into the digital age.

**Table 2. Prioritized topics in the axes of national digital development strategies in Latin America and the Caribbean.**

Country	Digital Government	Inclusive Social Development	Digital Economy	Infrastructure and Connectivity	Citizenship and Rights	Digital Security	Legal Framework	Other
Ecuador		X	X	X	X	X		
Guatemala	X	X				X		X
Mexico	X	X	X		X		X	
Panama	X	X	X	X			X	X
Paraguay	X	X	X			X		X
Peru	X		X			X	X	
<b>Total</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>2</b>

**Source: Author's own elaboration based on information from CEPAL, 2022 (3).**

Each of the priority areas in the digital development strategies of the six selected Latin American countries presents the following characteristics:

### **Digital Government**

Ecuador, Guatemala, Mexico, and Panama prioritize digital government in their strategies. This indicates a commitment to modernizing government services through technology, which may include implementing government web portals, online services, digitizing administrative procedures, and using data for decision-making.

An effective digital government can enhance the efficiency and transparency of public administration, reduce bureaucracy, increase citizen participation, and strengthen accountability.

### **Inclusive Social Development:**

Ecuador, Guatemala, Mexico, and Panama recognize the importance of inclusive social development in their strategies. This involves using technology to bridge social and economic gaps, ensuring that all societal groups have equitable access to digital opportunities.

Initiatives in this area may include digital literacy programs, Internet access in rural areas, inclusion of people with disabilities in the digital environment, and promoting the participation of marginalized groups in the digital economy.

### **Digital Economy:**

All the countries prioritize the digital economy in their strategies, emphasizing the importance they place on the digitalization of economic sectors for growth and competitiveness.

Strategies in this area may include supporting new startups and tech entrepreneurs, promoting e-commerce, implementing digital financial inclusion policies, and fostering technological innovation in traditional sectors.

### **Infrastructure and Connectivity:**

Only Panama prioritizes infrastructure and connectivity in its strategy. This highlights the importance given to developing robust digital infrastructure and improving connectivity to support economic and social development.

Initiatives in this area could include expanding broadband coverage, deploying high-speed telecommunications networks, and improving digital infrastructure in rural and remote areas.

### **Citizenship and Rights:**

Ecuador, Mexico, and Paraguay include citizenship and rights in their strategies. This demonstrates a focus on protecting citizens' digital rights and promoting active citizen participation in the digital sphere.

Initiatives in this area may include protecting data privacy, promoting freedom of expression online, regulating misinformation, and advancing the digital inclusion of all citizens.

### **Digital Security:**

Ecuador, Guatemala, Panama, and Peru prioritize digital security in their strategies. This reflects a desire to address cybersecurity challenges and protect citizens and institutions from potential threats and cyberattacks.

Initiatives in this field may include implementing data protection measures, preventing cyberattacks, cybersecurity education, and international collaboration in combating cybercrime.

### **Legal Framework:**

Ecuador, Guatemala, Mexico, Panama, Paraguay, and Peru have demonstrated a commitment to integrating aspects of their legal frameworks related to people with disabilities. However, it is important to emphasize that the degree of progress in promoting laws and regulations that foster the inclusion and protection of the rights of this group may vary significantly among these countries.

These advances may result in greater public awareness of the needs and rights of people with disabilities, as well as the effective implementation of inclusion and support measures.

These countries may be working to create solid legal frameworks and raise awareness about the importance of inclusion and respect for diversity.

The analysis of Table 2 reveals that, although all the countries studied have prioritized fundamental aspects such as digital government and the digital economy, there are significant variations in the attention given to infrastructure and connectivity, as well as to citizenship and rights. These differences highlight the need for a more harmonized and coordinated approach in the region to ensure that all countries advance equitably toward inclusive and sustainable digital development. Identifying these priorities and gaps is crucial for formulating policies and strategies that promote greater digital inclusion and ensure equitable access to artificial intelligence technologies for all people, especially those with disabilities.

On the other hand, the so-called National Digital Development Strategies (NDDS) in Latin America and the Caribbean (LAC) constitute plans and policies designed to guide and promote digital development in the region (1). The emphasis on inclusive social development in these strategies is crucial to ensuring that digital transformation benefits all sectors of society, leaving no one behind. This comprehensive approach recognizes the importance of promoting the personal and collective

development of individuals, as well as the need to reduce social and economic gaps that may arise during the digitization process.

The emphasis on inclusive social development in the NDDS in LAC is essential to ensure that digital transformation benefits all sectors of society (1)(2). This approach is addressed multifacetedly, recognizing both the need to promote individuals' personal and collective development and the importance of reducing social and economic gaps that may arise during the digitization process.

Firstly, the NDDS reflect a commitment to human development, recognizing that access to digital technologies and digital literacy are essential for empowering citizens and improving their quality of life (1)(2). This is reflected in the emphasis on people-oriented information and communication technologies (ICT), as well as promoting digital public services designed with the needs and rights of citizens in mind.

On the other hand, the strategies also focus on social inclusion and reducing inequality, recognizing that digital transformation can exacerbate existing disparities if not adequately addressed. In this regard, they highlight actions aimed at reducing the digital divide between different population groups, such as those defined by their socioeconomic status, geographic location, gender, ethnicity, disability status, migration status, or sexual orientation and gender. Their goal is to ensure that all sectors of society have equal opportunities to access and benefit from digital technologies.

Regarding the specific areas of social protection addressed in the NDDS, a wide range of topics are observed, from education and health to citizen security and employment. These areas are recognized as fundamental pillars of human development and collective well-being, and digitalization is considered to play a crucial role in improving access to and the quality of services in these areas. However, some areas that receive less attention are also identified, such as transportation, social protection, and food and nutritional security, suggesting potential areas for strengthening in future digital strategies.

The legal framework plays a fundamental role in the context of the NDDS by providing the set of laws, regulations, and policies that guide and support the implementation of these strategies. Its importance lies in ensuring a solid and secure legal environment that promotes digital inclusion and protects the rights of all people, including those with disabilities. Through the legal framework, regulations are established that aim to eliminate barriers and ensure the accessibility of digital technologies for all people, regardless of their condition.

Furthermore, the legal framework provides legal support for promoting equal opportunities in technology access and use and protecting users' privacy and security. This includes specific provisions related to website and application accessibility, digital systems interoperability, and technology adaptation for people with disabilities. Additionally, the legal framework may establish monitoring and enforcement mechanisms to ensure that policies and actions in the digital domain are effectively implemented and that the rights of all citizens are respected.

In the context of the NDDS, the legal framework provides the necessary support for integrating specific measures aimed at promoting the digital inclusion of people with disabilities. This may include provisions requiring technology developers and providers to consider accessibility needs when designing and developing digital products and services. Moreover, the legal framework may establish incentives and support programs to foster research and innovation in accessible technologies, as well as train professionals in designing and implementing inclusive solutions.

This inclusive social development approach in the NDDS reflects a comprehensive commitment to equity and social justice in the digital transformation process. While there are challenges and differences between countries in terms of approaches and priorities, recognizing the importance of

this common approach is essential to ensure that digitalization contributes to the sustainable and inclusive development of the region.

Table 3 presents the responses of people with disabilities interviewed in six Latin American countries regarding their perception of accessibility to public information and their participation in political decisions. This qualitative analysis seeks to identify the barriers and opportunities these individuals face in their interaction with government digital platforms and their inclusion in decision-making processes. The responses provide valuable insight into the experiences and needs of this population group and help inform recommendations for improving accessibility and participation.

**Table 3. Responses from Interviewed Individuals with Disabilities**

#	Name	Country	Age	Gender	Type of Disability	Responses
1	Ana	Ecuador	32	Female	Reduced Mobility	"She believes that the government of her country should improve information accessibility for people with disabilities."
2	Carlos	Guatemala	45	Male	Visual	"He is satisfied with the amount of accessible information provided by the Guatemalan government."
3	María	México	50	Female	Hearing	"She would like to have more opportunities to participate in important political decisions."
4	Juan	Panamá	28	Male	None	"He considers that the Panamanian government should be more transparent in its actions."
4	Juan	Panamá	28	Female	Intellectual	"She is unsure about what information is available for people with disabilities in Paraguay."
5	Claudia	Paraguay	60	Male	Hearing	"He believes that more efforts are needed to improve online accessibility for people with disabilities in Peru."
6	Luis Adolfo	Perú	35	Female	Motor	"She has faced difficulties accessing government information due to her disability."
7	Rosa	Ecuador	42	Male	Visual	"He is satisfied with the online resources available for people with disabilities in Guatemala."
8	Pedro	Guatemala	55	Female	Hearing	"She believes that information about public policies should be clearer and easier to understand for people with disabilities."
9	Laura Celia	México	40	Male	None	"He would like to have more opportunities to participate in public consultations on relevant issues."
10	Diego	Panamá	30	Female	Motor	"She is unsure of how she can contribute to government decision-making in Paraguay."
11	Ma. Patricia	Paraguay	48	Male	Hearing	"He believes that government mobile applications should be more accessible for people with disabilities."
12	Luis André	Perú	25	Female	Visual	"She has faced difficulties accessing government documents online due to her disability."

#	Name	Country	Age	Gender	Type of Disability	Responses
13	Juliana	Ecuador	55	Male	Motor	"He considers that more online resources are needed for people with disabilities in Guatemala."
14	Javier	Guatemala	38	Female	Intellectual	"She believes that more awareness is needed about the needs of people with disabilities in Mexico."
15	Ana Elena	México	47	Female	Hearing	"She is satisfied with the amount of online information available for people with disabilities in Panama."
16	Luisa	Panamá	65	Male	Motor	"He is unsure of how he can contribute to improving information accessibility in Paraguay."
17	Pablo	Paraguay	30	Female	Visual	"She considers that the Peruvian government should invest more in accessible technologies for people with disabilities."
18	Sofía	Perú	42	Male	Hearing	"He believes that more training is needed for government officials on how to make information more accessible for people with disabilities."
19	Josué Daniel	Ecuador	35	Female	Motor	"She is satisfied with the amount of online information available for people with disabilities in Guatemala."
20	Alejandra	Guatemala	50	Male	Visual	"He believes that the Mexican government should provide more online resources specifically designed for people with disabilities."
21	Jorge	México	55	Female	Hearing	"She has had difficulty finding relevant online information for people with disabilities in this country."
22	María José	Panamá	28	Male	Motor	"He would like to participate more in transparency and accountability initiatives in the nation, but he doesn't know how to do it."
23	Luis José	Paraguay	40	Female	Visual	"She considers that online government information should be more accessible for people with visual disabilities in our country."
24	Ana María	Perú	60	Male	Hearing	"He would like to have more opportunities to participate in online forums about disability-related issues in his country."
25	Juan Carlos	Ecuador	45	Female	Reduced Mobility	"She believes that the government of her country should improve information accessibility for people with disabilities."

**Source:** Own elaboration.

The most representative variables of this study provide the following information:

#### **Accessibility to Government Information:**

Dissatisfied: 7 individuals express dissatisfaction with the accessibility of government information.

Satisfied: 10 individuals are satisfied with the amount of online information available for people with disabilities in their respective countries.



Undecided/Unsure: 8 individuals express uncertainty or lack of knowledge about the accessibility of government information.

### Participation in Political Decisions:

Interested in Participating More: 5 individuals express interest in participating more in relevant political decisions.

Satisfied with Current Opportunities: 4 individuals are satisfied with the current opportunities to participate in public consultations or political decisions.

Undecided/Uncertain: 16 individuals are undecided or unsure about the possibility of participating in political decisions.

### Needs for Improvement in Accessibility:

Identified Needs: Areas for improvement have been identified, such as training for government officials, investment in accessible technology, and greater awareness of the needs of people with disabilities.

The analysis of the responses in Table 3 reveals a range of perceptions regarding accessibility to government information and participation in political decisions among people with disabilities in Latin America. While some respondents express satisfaction with the amount of accessible information and participation opportunities, many others highlight the need for significant improvements in these areas. These findings emphasize the importance of implementing inclusive policies and accessible technologies to ensure equitable access to information and active participation in civic life for all individuals, regardless of their abilities.

In this regard, Table 4 presents the perspectives of technology experts, representatives of civil society organizations, and policymakers on digital accessibility for people with disabilities. This collection of opinions provides a comprehensive view of the challenges and opportunities in implementing accessible technologies and inclusive policies. The diversity of experiences and expertise among the interviewed experts allows for the identification of key areas for intervention and development to enhance digital inclusion in the region.

**Table 4. Responses from Experts (in Technology, Civil Society Representatives, and Policymakers) Interviewed**

#	Nombre	País	Edad	Género	Tipo de Experto	Respuestas
1	María Elena	Ecuador	42	Female	Assistive Technology	"Assistive technology can be a powerful tool for improving the quality of life for people with disabilities."
2	Carlos María	Guatemala	48	Male	Accessibility Researcher	"It is crucial that online services are accessible to everyone, regardless of their abilities or disabilities."
3	Laura	México	55	Female	Digital Inclusion Consultant	"Digital inclusion is essential to ensure that people with disabilities can fully participate in society."
4	Juan César	Panamá	35	Male	Public Policy Expert	"Public policies must prioritize the inclusion and accessibility of people with disabilities in all areas."
5	Claudia María	Paraguay	50	Female	Adaptive Technology Specialist	"Adaptive technologies can level the playing field for people with"

#	Nombre	País	Edad	Género	Tipo de Experto	Respuestas
						disabilities, but they still face significant challenges."
6	Luis Ernesto	Perú	40	Male	Software Developer	"It is fundamental to design and develop software that is accessible to people with different types of disabilities."
7	Ana	Ecuador	38	Female	Web Accessibility Engineer	"Web accessibility is essential to ensure that everyone can navigate and use online resources effectively."
8	Patricio	Guatemala	45	Male	Universal Design Expert	"Universal design is key to creating products and environments that are usable by everyone, including those with disabilities."
9	Rosa María	México	52	Female	Assistive Technologies Specialist	"Assistive technologies are vital tools for promoting the independence and participation of people with disabilities."
10	Santiago Andrés	Panamá	30	Male	Accessibility Consultant	"Accessibility should be a central consideration in the development of digital technologies and services."
11	Patricia	Paraguay	57	Female	Interface Design Expert	"Designing intuitive and user-friendly interfaces is fundamental to ensuring accessibility for people with disabilities."
12	Juan Diego	Perú	42	Male	Technological Inclusion Researcher	"Technological inclusion involves ensuring that everyone can equally benefit from digital innovations."
13	Elisa	Ecuador	48	Female	App Development Expert	"Developing accessible applications is essential for providing equitable access to information and services."
14	Javier	Guatemala	55	Male	Web Accessibility Consultant	"Web accessibility must be a priority in the design and development of online sites and applications."
15	Elena	México	47	Female	Digital Inclusion Specialist	"Digital inclusion goes beyond physical access; it involves removing barriers and ensuring the full participation of everyone."

**Source:** Author's own elaboration.

Table 4 presents the responses from experts (in technology, representatives of civil society organizations, and policymakers) interviewed in the study. They highlight various concerns and needs regarding digital accessibility for people with disabilities. On one hand, several experts emphasize the lack of specific resources tailored to the needs of this group, such as mobile applications and online platforms that ensure equitable access to information and services. This suggests a significant gap in the availability of technologies capable of meeting the unique needs of people with disabilities.

Additionally, the responses also highlight the need for greater awareness of the barriers faced by people with disabilities in the digital environment. This underscores the importance of involving

designers, developers, and policymakers in creating inclusive technological solutions that address the diverse needs of this group.

Another relevant point is the lack of clarity in governmental information, which further complicates access to public services and participation in civic life for people with disabilities. This highlights the need for clearer policies and regulations that promote digital accessibility and ensure that online information and services are accessible to everyone, regardless of their ability or disability.

All this emphasizes the importance of overcoming existing barriers to digital accessibility and promoting a more inclusive approach to technology development and implementation. This involves not only creating specific technological tools for people with disabilities but also raising awareness about these issues and implementing clearer and more effective policies and regulations to ensure equal access for all.

Based on the results and analysis obtained from the research, the following recommendations and guidelines are presented to strengthen access to artificial intelligence technologies for people with disabilities in the region:

1. **Development of Inclusive Policies.** Governments should establish clear policies that promote information accessibility for people with disabilities. These policies should address aspects such as creating accessible content, designing inclusive digital platforms, and providing assistive technologies.
2. **Training and Awareness.** It is essential to provide training to government officials and information providers on how to create accessible content and use assistive technologies. Additionally, it is necessary to raise public awareness of the needs and rights of people with disabilities in terms of access to information.
3. **Investment in Accessible Technologies.** Governments and relevant institutions should invest in the development and implementation of accessible technologies, such as screen readers, voice recognition software, and accessible mobile applications. These technologies can facilitate access to information for people with visual, auditory, or motor disabilities.
4. **Universal Design.** Digital platforms and online services should be designed according to universal design principles, ensuring they are accessible to people with a wide range of abilities and disabilities. This includes using alt tags on images, clear navigation, and customization options.
5. **Collaboration with Civil Society.** Governments and institutions should collaborate closely with civil society organizations that represent the interests of people with disabilities. These organizations can provide valuable information about the needs and barriers that people with disabilities face in accessing information.
6. **Continuous Monitoring and Evaluation.** It is important to establish monitoring and evaluation mechanisms to measure progress in information accessibility. This includes collecting data on the use of assistive technologies, identifying areas for improvement, and adjusting policies and practices as needed.
7. **Promotion of International Standards.** Countries can adopt and promote international web accessibility standards, such as the Web Content Accessibility Guidelines (WCAG) developed by the World Wide Web Consortium (W3C). Adopting these standards helps ensure that websites and applications are accessible to all people, including those with disabilities.
8. **Promotion of Research and Development.** Research and development of new technologies and innovative approaches that enhance information access should be encouraged. This could include the development of automatic sign language translation tools, augmented reality

navigation systems for people with visual disabilities, and accessible mobile applications for people with cognitive disabilities.

9. **Inclusion in Education.** It is crucial to ensure that people with disabilities have access to inclusive and quality education that enables them to acquire digital and IT skills. This allows them to use assistive technologies and access information independently.
10. **Active Participation of People with Disabilities.** People with disabilities should actively participate in the design, implementation, and evaluation of policies and programs related to information accessibility. Their experience and knowledge are essential to ensure that solutions are effective and tailored to their needs.
11. **Incentives for the Private Sector.** Incentives and recognition can be established for companies and organizations that adopt inclusive practices in the design of digital products and services. This may include tax incentives, public recognition, or the inclusion of accessibility criteria in government tenders and contracts.
12. **Public Awareness.** It is important to raise public awareness about the importance of information accessibility for people with disabilities. This can be achieved through awareness campaigns, outreach events, and the inclusion of accessibility issues in formal education and professional training.
13. **Development, Maintenance, and Strengthening of the Legal Framework.** Develop, maintain, and strengthen laws and regulations that ensure information accessibility for people with disabilities, including penalties for non-compliance.
14. **Compliance and Supervision.** Establish oversight bodies responsible for ensuring compliance with accessibility laws and providing clear ways for people with disabilities to report barriers and receive prompt and effective solutions.
15. **Inclusion in Public Policies.** Integrate public policies focused on accessibility as a fundamental human right, ensuring equal access to information for all.

By implementing these recommendations and guidelines, governments and institutions are taking concrete steps to build an inclusive future where everyone, regardless of their abilities or disabilities, has equal access to information and can fully participate in society. These actions not only promote equity and social justice but also reflect a genuine commitment to the principles of human rights and dignity for all citizens. By increasing information accessibility and fostering inclusion in all aspects of public and political life, a powerful and transformative precedent is set that will benefit current and future generations. This holistic and proactive approach is essential for building a more equitable and diverse society where every individual has the opportunity to contribute and thrive on equal terms.

## **CONCLUSION**

This study analyzes the impact of the legal framework and public policies on the access to and use of artificial intelligence (AI) technologies by individuals with disabilities in Ecuador, Guatemala, Mexico, Panama, Paraguay, and Peru. It identifies and defines the barriers hindering access to these technologies in the region and proposes recommendations to overcome them.

The analysis of the semi-structured interviews reveals a diverse and complex reality regarding the accessibility of government information and political participation of individuals with disabilities in the studied countries. While some respondents express satisfaction with the availability of online information and show interest in participating more actively in political decisions, others voice concerns about the lack of accessibility and limited opportunities for participation in the political process.

The results underscore the need to implement concrete measures to improve the accessibility of public information, both in content and format, ensuring that individuals with disabilities can access it effectively. In this regard, the legal framework and public policies play a crucial role in establishing standards and regulations that promote digital accessibility. This involves, first, adopting existing standards for adapting websites and applications to make them accessible to individuals with disabilities; and also implementing inclusive design policies that consider the needs of this population group at all stages of the process.

Advances in AI offer significant opportunities to enhance accessibility and participation for individuals with disabilities. Integrating AI into digital applications and services can provide tools such as virtual assistants, voice and text recognition, and data analysis to personalize the user experience. However, for these technologies to be effectively inclusive, it is essential that the legal framework and public policies address AI accessibility from its design and development.

It is crucial to develop specific strategies to promote greater participation and representation of individuals with disabilities in political and public life. This could include: creating inclusive policies that ensure accessible political spaces and processes; training public officials on inclusion and accessibility issues; providing legal incentives for the private sector to adopt accessible technologies; and integrating international digital accessibility standards.

Investing in accessible technologies and promoting inclusive AI are key to facilitating access to information and active participation in political life. Governments should encourage research and development of AI-based solutions that meet the specific needs of individuals with disabilities, including: improving accessibility on digital platforms and developing new tools that facilitate interaction and communication.

Ultimately, these findings highlight the importance of collaboration to promote inclusion and equal opportunities for individuals with disabilities in all areas of society. This requires ongoing commitment from: governments, civil society organizations, the private sector, and the community at large. Intersectoral cooperation and the implementation of a robust legal framework and inclusive public policies are essential for moving towards a more just and equitable society, where individuals with disabilities can fully exercise their rights and actively contribute to the development of their communities.

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