

## Artículo de Investigación

### *Determination of the connection among the prison framework and public rules on get admission to and use of synthetic intelligence technology with the aid of using humans with disabilities in Latin American countries*

Autores:

Verónica Annabel Estrella Romero<sup>1</sup>

<sup>1</sup>Universidad Estatal de Milagro, Milagro, Ecuador, [vestrellar@unemi.edu.ec](mailto:vestrellar@unemi.edu.ec), <https://orcid.org/0000-0002-9754-8878>

**Corresponding Author:** *Verónica Annabel Estrella Romero*, [vestrellar@unemi.edu.ec](mailto:vestrellar@unemi.edu.ec)

**Reception:** 28-september-2024 **Acceptance:** 22-october-2024 **Publication:** 02-november-2024

#### How to cite this article:

Estrella Romero, V. A. (2024). Determination of the connection among the prison framework and public rules on get admission to and use of synthetic intelligence technology with the aid of using humans with disabilities in Latin American countries. *Sapiens in Higher Education*, 1(2), 1-28.  
<https://sapiensjournal.ec/index.php/sihe/article/view/41>

## Abstract

This study's primary goal is to examine and ascertain how public policies and the legal framework in Latin American nations connect to the usage and accessibility of artificial intelligence (AI) technologies by individuals with disabilities. In order to do this, an examination of the regional government's laws and policies, as well as the programs and procedures put in place in this regard, was conducted. The findings show a range of strategies and stages of advancement in the region's regulation and advancement of technology accessibility for those with impairments. On the basis of these findings, strong recommendations and guidelines are put forth with the goal of enhancing the integration of individuals with disabilities in the digital age, ensuring their rights, and encouraging their full participation in society. Notable advancements and areas of opportunity were identified to improve inclusion and equitable access to AI tools. This study makes a valuable addition to the comprehension and resolution of the opportunities

and problems brought about by the confluence of public policies, legal frameworks, and AI technology use in the context of disability in Latin America.

**Keywords:** artificial intelligence; public policy; assistive technology; people with impairments; latin america.

## Resumen

El objetivo principal de este estudio es examinar y determinar cómo las políticas públicas y el marco legal en los países latinoamericanos se conectan con el uso y la accesibilidad de las tecnologías de inteligencia artificial (IA) por parte de las personas con discapacidad. Para ello, se llevó a cabo un examen de las leyes y políticas del gobierno regional, así como de los programas y procedimientos establecidos al respecto. Los hallazgos muestran una variedad de estrategias y etapas de avance en la regulación de la región y el avance de la accesibilidad a la tecnología para las personas con discapacidades. Sobre la base de estos hallazgos, se formulan recomendaciones y directrices firmes con el objetivo de mejorar la integración de las personas con discapacidad en la era digital, garantizar sus derechos y fomentar su plena participación en la Sociedad. Se identificaron avances notables y áreas de oportunidad para mejorar la inclusión y el acceso equitativo a las herramientas de IA. Este estudio es un valioso aporte a la comprensión y resolución de las oportunidades y problemáticas que plantea la confluencia de políticas públicas, marcos legales y el uso de tecnologías de IA en el contexto de la discapacidad en América Latina.

**Palabras clave:** inteligencia artificial; política pública; tecnología de asistencia; personas con discapacidades; latinoamérica.

## 1. INTRODUCTION

It is acknowledged that artificial intelligence (AI) technologies can be a useful resource for the Latin American population with disabilities in the current context, which is marked by rapid technological advancement. However, the implementation of suitable laws and policies is necessary to guarantee that everyone has fair and efficient access to these resources. This study's main goal is to examine how Latin American legal and policy frameworks affect the accessibility and application of AI technology by individuals with disabilities. This will be accomplished by using a research technique that permits an investigation to look at the current legislation as well as their actual implementation in the area (Martínez, Palma, & Velásquez, 2020).

Access to technology and digital inclusion for individuals with impairments present particular difficulties in Latin America. Significant disparities still exist in this population's access to and efficient use of AI technologies, despite certain nations having made strides in passing legislation and policies for digital accessibility. According to 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" (Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura, UNESCO, 2017) and "A Digital Pathway for Sustainable Development in Latin America and the Caribbean" (Comisión Económica para América Latina y el Caribe, CEPAL., 2022), respectively, the region's disabled population faces a number of obstacles, including the digital divide, resource constraints, and a lack of coordination between governmental and non-governmental actors.

Understanding the importance of information for social and personal development is essential for studies on how Latin American legal and policy frameworks affect the availability and utilization of AI technology by individuals with disabilities. Information gives people the information they need to understand the world and the things that happen in it, which in turn gives them useful tools to improve their quality of life and influence social conduct (Bologna, 2020).

When it comes to the use of AI, information access becomes crucial for individuals with impairments. For these people to stay up to date on news, access educational materials catered to their individual needs, and fully engage in digital and social life, they need rapid and comprehensive access to content produced by AI technologies. They encounter a number of challenges in obtaining this data, though, including the inaccessibility of AI platforms and the lack of inclusive design considerations throughout the technology's development. These difficulties highlight the necessity of strong legislative frameworks and sound public policies that guarantee everyone, regardless of disability status, fair access to information produced by AI (Bologna, 2020).

The primary international human rights instrument for safeguarding the rights and dignity of individuals with disabilities is the United Nations (UN) Convention on the Rights of Persons with Disabilities (CRPD), which was drafted in 2006 and has been in effect since 2008. It acknowledges accessibility as a fundamental principle that permeates all rights (Barajas, 2006). This suggests that accessibility is seen as a tool to support the exercise of other rights rather than as a separate right in and of itself. Furthermore, the CRPD Committee states that accessibility is a crucial part of the sustainable development goal and is thus regarded as an investment in society (United Nations, 2006).

Based on this conceptual framework and using data collection methods, we suggest performing a thorough legal, social, and political analysis in six Latin American countries: Ecuador, Guatemala, Mexico, Panama, Paraguay, and Peru, to look at how governments have handled ensuring that people with disabilities have access to information and the ability to use artificial intelligence.

We will also look into the existing state of affairs, the obstacles that persons with disabilities encounter, and how they relate to their inability to exercise other rights. This method will enable us to emphasize how crucial it is to protect this right as soon as possible and to determine the best ways to do so. In order to tackle the problem of ensuring that digital transformation is inclusive and advantageous for all facets of society, the following goals have been set:

General Objective:

To examine the effects of public policies and legal frameworks on the availability and utilization of AI technology by individuals with disabilities in Latin American nations.

Specific Objectives:

- To determine and characterize the obstacles that prevent individuals with disabilities in the area from utilizing artificial intelligence technologies.
- To examine various models, programs, and effective practices pertaining to the utilization of artificial intelligence technologies by individuals with disabilities in the area.
- On the basis of the research's findings and analyses, rules should be suggested to improve the region's accessibility to artificial intelligence technology for those with impairments.

## 2. DEVELOPMENT

Numerous opportunities and obstacles for individuals with disabilities in Latin America to access and use artificial intelligence technologies were found based on the data analysis and document review. This section offers a list of suggestions based on these findings that are meant to improve digital inclusion and provide fair access to AI technologies. The suggested recommendations are based on the particular demands and difficulties found during the research as well as on best practices that have been observed. These recommendations aim to help technology developers, civil society organizations, and legislators create a more accessible and inclusive environment for people of all abilities.

## 3. METHODOLOGY

The precise steps, resources, and participant selection standards that guarantee the study's validity and reproducibility are described in the section that follows.

#### Approach to Methodology:

A mixed-methods strategy was used, integrating qualitative and quantitative techniques, to accomplish the suggested goals (Medina-Romero, Hurtado-Tiza, Muñoz-Murillo, Ochoa-Cervantez, & Izundegui-Ordóñez, 2023). A thorough analysis of the literature on laws and public policy pertaining to artificial intelligence and disabilities in Latin American nations was carried out. To gain a deeper understanding of current issues and prospects, semi-structured interviews were also conducted with specialists in the domains of disability, technology, and policymaking. The final research suggestions were developed by using both qualitative and quantitative analysis methodologies to the acquired data (Hernández-Sampieri & Mendoza-Torres, 2022).

#### Analysis of Documents:

A thorough examination of Latin American countries' laws, public policies, reports, and documents pertaining to technology and disability was carried out. This offered a contextual framework for comprehending how people with impairments now access and utilize artificial intelligence.

#### Semi-structured Interviews:

A representative sample of policymakers, technology specialists, members of civil society organizations, and individuals with disabilities participated in semi-structured interviews. Diverse viewpoints on current obstacles, best practices, and suggestions to increase access to artificial intelligence were offered by these interviews.

#### Data Analysis:

Both qualitative and quantitative methods were used to examine the information gathered from the literature research and interviews (Medina-Romero, Hurtado-Tiza, Muñoz-Murillo, Ochoa-Cervantez, & Izundegui-Ordóñez, 2023). Finding patterns, trends, and developing themes made it possible to compare different countries and create well-founded recommendations.

## 4. RESULTS

Important findings emerge from the study of Latin America's legal system and public policies pertaining to the usage and access of AI technologies by individuals with disabilities. A documentary review matrix summarizing the main conclusions from the examined literature is shown in Table 1. With 38 pertinent references spanning the years 1996–2023, this matrix offers a thorough summary of the developments, difficulties, and viewpoints in the areas of digital accessibility and the inclusion of individuals with disabilities in the age of artificial intelligence. A thorough summary of the data collected, emphasizing the most pertinent elements for our investigation, is provided below.

**Table 1: Matrix of Documentary Reviews**

#	Reference	Author(s)	Year	Abstract	Constitutional Structure
1	People with Disabilities and Labor Inclusion in Latin America and the Caribbean: Main Challenges of Social Protection Systems.	Bietti, M. F.	2023	The difficulties that people with disabilities encounter in Latin America and the Caribbean with regard to social protection and employment inclusion are examined in this paper.	It examines the laws and regulations pertaining to the employment of individuals 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	The inclusion paradigm's increased protection of human rights for those with impairments is examined in this article.	In order to guarantee the full exercise of these rights in a setting of social inclusion and democracy, it emphasizes the significance of access to justice through an analysis of the laws and international agreements that safeguard the rights of individuals with disabilities.
3	Web Accessibility of Colombian Public Entities.	Cortés, J. E.	2022	The findings of a study that assesses and comprehends the accessibility levels of Colombian public institutions' websites are presented in this book.	It looks at Colombia's laws pertaining to internet accessibility.
4	Technological Inclusion: Challenges and Perspectives.	López, A.	2022	The opportunities and difficulties of technological inclusion are examined in this study.	It suggests a review of the existing legislation pertaining to technological inclusion.
5	Inclusive Education from the Legal Educational Framework in Ecuador.	Hernández, P. A., & Samada, Y.	2021	This article examines the laws and policies that promote educational inclusion, as well as the difficulties and advancements in its implementation, in order to assess inclusive education in Ecuador from the standpoint of the educational legal framework. It emphasizes how crucial the legal system is to ensuring that everyone, regardless of ability, has access to education and equal opportunity.	The examination of Ecuador's inclusive education laws and policies is the main objective of the legal framework. It examines the laws that ensure equal access to education and evaluates how well they work to advance educational inclusion.
6	Public Policies in Inclusive Education in Contexts of Innovation and Internationalization.	García, M.	2020	This book examines methods for fostering inclusivity in innovative and globalized settings.	It examines the laws pertaining to inclusive education in light of globalization and innovation.

#	Reference	Author(s)	Year	Abstract	Constitutional Structure
7	Challenges in the Digital Age: Hypermedia Identity, Media Literacy, and Digital Inclusion.	Hidalgo, J. A.	2020	The difficulties associated with media literacy, digital inclusion, and hypermedia identity in the digital age are discussed in this article. It describes how interaction, communication, and information access have changed as a result of advancements in information and communication technologies. The implications for digital inclusion and equity in information access and involvement in the digital society are examined, along with the problems related to gender, ethics, and communication.	The legal framework focuses on investigating laws and rules pertaining to media literacy, digital inclusion, and digital identity. Along with examining the rights and obligations of users in the digital sphere, it also looks at legislation and regulations designed to guarantee fair access to ICTs.
8	Inclusive Education and Equality for People with Disabilities in the Digital Transformation.	Jiménez, A. E.	2020	In the context of digital revolution, this article discusses equality and inclusive education for those with impairments. It examines how technology may be a potent instrument for advancing equity and inclusion in education, as well as the difficulties and barriers that individuals with disabilities have while attempting to access and utilize digital tools in the classroom.	In light of the digital transformation, the legal framework examines the laws and rules pertaining to equality for individuals with disabilities and inclusive education. It looks at national and international laws that aim to guarantee fair educational opportunities and encourage the participation of individuals with disabilities in online learning 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	The suggested activities and the involvement of the European Public Health Association (EUPHA) in this process are described in depth in this article, which offers a thorough overview of the digitization of public health in Europe. It examines the ways in which digital technology, such as accessibility for those with	Examined is the European legal framework around the digitization of public health, which includes particular rules to guarantee that medical technology is accessible to individuals with impairments. The paper emphasizes how crucial it is to modify current laws and policies in order to handle the privacy and ethical issues that come up when digital

#	Reference	Author(s)	Year	Abstract	Constitutional Structure
				impairments, can enhance public health systems.	technologies are used in healthcare.
10	Better Health for People with Disabilities.	World Health Organization.	2019	Important information about enhancing the health of individuals with disabilities is presented in this infographic. It provides up-to-date data, highlights typical obstacles to healthcare access, and suggests ways to enhance health outcomes for this demographic.	The infographic examines the global legal framework surrounding health and disability, including laws that ensure disabled individuals have fair access to medical care and assistive technology. National laws and pertinent international conventions that support accessibility and inclusiveness in the health sector are cited.
11	Shaping the Digital Transformation in Latin America: Strengthening Productivity, Improving Lives.	Organization for Economic Co-operation and Development, OECD.	2019	This study offers a thorough examination of Latin America's digital transformation, emphasizing its effects on social welfare and economic productivity. With an emphasis on the inclusion of vulnerable populations, such as those with disabilities, it looks at how digital technologies may promote inclusive growth and enhance quality of life.	The rules and regulations pertaining to digital inclusion and individuals with disabilities are examined, as well as the legal framework associated with digital transformation in Latin America. The paper examines current regulations and makes suggestions for their improvement in order to support digital accessibility and the defense of the rights of individuals with disabilities in the digital sphere.
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	Artificial intelligence (AI) and advanced information and communication technologies (ICTs) are covered in detail in this publication from a rights-based, open access, and multi-stakeholder standpoint. It examines how these technologies affect knowledge societies and suggests methods for their inclusive and moral development and application.	The global legal structure surrounding ICTs and artificial intelligence is reviewed, including laws that guarantee equal opportunity and accessibility for individuals with impairments in the digital realm. The report emphasizes the necessity of creating and modifying laws and regulations to handle the moral and human rights

#	Reference	Author(s)	Year	Abstract	Constitutional Structure
					issues raised by these new 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	Using a controlled multi-stage feasibility and effectiveness approach, this study examines how smart eyewear interventions affect socio-emotional and behavioral functioning in students with autism.	In order to better understand the legal environment around inclusive education and technology treatments for students with autism, this study looks at laws that support accessibility, program adaptability, and data protection when using assistive technology.
14	Negotiating Disability: Disclosure and Higher Education.	Kerschbaum, S. L.	2017	The way that individuals with disabilities deal with disclosing their condition in higher education settings and how this impacts their inclusion and involvement in academic settings are examined in this publication.	With an emphasis on laws and policies that support accessible and equitable opportunity for students with disabilities, this paper examines the global legal framework governing disability disclosure in higher education.
15	Disability, Human Rights, and Information Technology.	Lazar, J., & Stein, M. A.	2017	In order to show how technological policies and practices might impact the defense and advancement of the rights of those with disabilities, this book examines the relationship between disability, human rights, and information technology.	The worldwide legal framework that safeguards the human rights of individuals with disabilities in the digital sphere is examined in this book, together with laws that guarantee accessibility and equal chances for access to information technology.
16	An Exploratory Case Study on Letter-Based, Head-Movement-Driven Communication.	Miksztai-Réthey, B., & Faragó, K. B.	2017	The usefulness of a communication system that selects letters based on head motions for individuals with severe communication difficulties is assessed in this study through an exploratory case study.	The legal framework around assistive communication technology for individuals with severe impairments is examined in this research, along with laws that support accessibility and the availability of these tools to enhance these people's quality of life and communication.

#	Reference	Author(s)	Year	Abstract	Constitutional Structure
17	The State of the World's Children 2017: Children in a Digital World.	United Nations Childrens Fund, UNICEF.	2017	The condition of children in the digital age is examined in detail in this paper, with particular attention paid to the opportunities and difficulties they encounter when it comes to using technology and how it affects many facets of childhood. Analysis is done on how internet access affects education, development, and the safety of children, especially those with impairments.	The worldwide legal framework for safeguarding children's rights in the digital sphere is examined in the paper, together with laws pertaining to online safety and accessibility for kids with impairments. In order to guarantee a secure and welcoming digital environment for all kids, current laws and regulations are reviewed, along with any regulatory gaps that need to be filled.
18	Deep Learning Reinvents the Hearing Aid.	Wang, D.	2017	An in-depth examination of how deep learning is transforming the technology of hearing aids is provided in this article. It is discussed how advancements in auditory signal processing may greatly help those who are hard of hearing by improving speech comprehension and sound quality in a variety of acoustic settings.	Regulations that guarantee the accessibility, quality, and safety of assistive hearing technology and hearing aids for those with hearing loss are examined, along with the legal framework around their production and usage. The ethical and legal ramifications of incorporating AI into medical devices are also covered in the essay.
19	Affect Control Processes: Intelligent Affective Interaction Using a Partially Observable Markov Decision Process.	Hoey, J., Schröder, T., & Alhothali, A.	2016	This work uses a partially observable Markov decision process to introduce a novel method for intelligent emotional interaction. It investigates how adding emotional components to this model might improve human-machine interaction, which may have important uses in assistive technology for those with impairments.	The ethical and legal ramifications of utilizing artificial intelligence systems in interactions with people, particularly those with disabilities, can be taken into consideration even while the content has nothing to do with the legal framework for persons with disabilities. This would include topics like consent, privacy, and regulation of assistive technology based on artificial intelligence.

#	Reference	Author(s)	Year	Abstract	Constitutional Structure
20	Global Diffusion of eHealth: Making Universal Health Coverage Achievable.	World Health Organization, WHO.	2016	The global spread of eHealth and its critical role in attaining universal health care are thoroughly examined in this research. Examined are current developments in digital health technology, their effects on the provision of healthcare, and how these advancements might increase underserved groups' access to treatment, especially those with impairments.	Agreements and treaties that support accessibility and the inclusion of individuals with disabilities in digitalized health systems are among the international legal frameworks pertaining to eHealth that are explored. In order to guarantee privacy, security, and equality in the use of eHealth technology, the paper also examines national rules and regulations.
21	Global Sustainable Development Report.	United Nations.	2016	The difficulties and prospects for accomplishing the Sustainable Development Goals (SDGs) are highlighted in this research, which offers a thorough assessment of the condition of sustainable development globally. It examines how attaining genuinely sustainable and equitable development requires the participation of those with disabilities.	It examines the worldwide legal framework surrounding sustainable development, particularly the laws and rules that support accessibility and the participation of individuals with disabilities in sustainable development initiatives. In order to guarantee the full involvement of individuals with disabilities, the research looks at how current legislative frameworks support the achievement of the SDGs and where changes are required.
22	Socializing Robots: Constructing Robotic Sociality in the Design and Use of the Assistive Robot PARO.	Šabanović, C., & Chang, W. L.	2016	In order to assess the PARO assistive robot's influence on social interaction and the welfare of individuals with disabilities, this study examines how robotic sociability is built into the device's design and operation.	The legislative framework governing assistive robots is reviewed, including rules that guarantee accessibility, safety, and ethics in the development and application of the PARO robot in facilities for the elderly and disabled.

#	Reference	Author(s)	Year	Abstract	Constitutional Structure
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	With an emphasis on information and communication programs, information inclusion procedures, and innovative methods of law enforcement and monitoring, this study analyzes the US case and suggests a reinterpretation of legislative protections for Internet access for individuals with disabilities.	An analysis of the US legislative framework for disabled individuals' access to the Internet emphasizes the necessity of an all-encompassing accessibility strategy 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	The difficulties that persons with disabilities encounter in Latin America and the Caribbean with regard to social protection and employment participation are examined in this paper.	It examines the laws and regulations pertaining to the employment of individuals 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	The inclusion paradigm's increased protection of human rights for those with impairments is examined in this article.	In order to guarantee the full exercise of these rights in a setting of social inclusion and democracy, it emphasizes the significance of access to justice through a study of the laws and international agreements that safeguard the rights of individuals with disabilities.
26	Smart Home Technology for Safety and Functional Independence: The UK Experience.	Dewsbury, G., & Linsell, J.	2011	The findings of a study that assesses and comprehends the accessibility levels of Colombian public institutions' websites are presented in this book.	It looks at Colombia's laws pertaining to internet accessibility.
27	Towards the Development of a Technology for Art Therapy and Dementia: Definition of Needs and Design Constraints.	Mihailidis, A., & Blunsden, S. B.	2010	The potential and difficulties of technological inclusion are examined in this study.	It suggests a review of the existing legislation pertaining to technological inclusion.

#	Reference	Author(s)	Year	Abstract	Constitutional Structure
28	Nanotechnology in Food.	Pinzón, M. P.	2010	This article examines the laws and policies that promote educational inclusion, as well as the difficulties and advancements in its implementation, in order to assess inclusive education in Ecuador from the standpoint of the educational legal framework. It emphasizes how crucial the legal system is to ensuring that everyone, regardless of ability, has access to education and equal opportunity.	The examination of Ecuador's inclusive education laws and policies is the main objective of the legal framework. It examines the laws that provide equal access to education and evaluates how well they work to advance 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 examines methods for fostering inclusivity in innovative and globalized settings.	It examines the laws pertaining to inclusive education in light of globalization and innovation.
30	TechTalk: Assistive Technology for Writing.	Caverly, D. C.	2008	The difficulties associated with media literacy, digital inclusion, and hypermedia identity in the digital age are discussed in this article. It describes how interaction, communication, and information access have changed as a result of advancements in information and communication technology. The implications for digital inclusion and equity in information access and involvement in the digital society are examined, along with the problems related to gender, ethics, and communication.	Investigating laws and rules pertaining to media literacy, digital inclusion, and digital identity is the main goal of the legal framework. It looks at laws and rules designed to guarantee that everyone has access to information and communication technology, as well as the rights and obligations of users in the digital world.
31	Collaborative Path Planning for a Robotic Wheelchair.	Zeng, Q., Teo, C. L., & Burdet, E.	2008	In the context of digital revolution, this article discusses equity and inclusive education for those with impairments. It examines how technology may be a	In light of the digital transformation, the legal framework examines the laws and rules pertaining to equality for individuals with disabilities and inclusive

#	Reference	Author(s)	Year	Abstract	Constitutional Structure
				potent instrument for advancing equity and inclusion in education, as well as the difficulties and barriers that individuals with disabilities have while attempting to access and utilize digital tools in the classroom.	education. It looks at national and international laws that aim to provide fair educational opportunities and encourage the participation of individuals with disabilities in online learning settings.
32	Smart Wheelchairs: A Literature Review.	Simpson, R. C.	2005	The suggested activities and the involvement of the European Public Health Association (EUPHA) in this process are described in depth in this article, which offers a thorough overview of the digitization of public health in Europe. It examines the ways in which digital technology, such as accessibility for those with impairments, might enhance public health systems.	Examined is the European legal framework around the digitization of public health, which includes particular rules to guarantee that medical technology is accessible to individuals with impairments. The paper emphasizes how crucial it is to modify current laws and policies in order to handle the privacy and ethical issues that come up when digital technologies are used in healthcare.
33	Assistive Technologies for the Disabled and for the New Generation of Senior Citizens: The e-Tools Architecture.	Cortés, U., Annicchiarico, R., Vázquez-Salceda, J., Urdiales, C., Cañamero, L., López-Sánchez, M., Sánchez-Marrè, M., & Caltagirone, C.	2003	Important information on enhancing the health of individuals with disabilities is presented in this infographic. It provides up-to-date data, highlights typical obstacles to healthcare access, and suggests ways to enhance health outcomes for this demographic.	The worldwide legal framework around health and disability is examined in the infographic, along with laws that ensure individuals with impairments have fair access to medical treatment and assistive technology. Relevant international agreements and domestic laws that support accessibility and inclusivity in the health sector are cited.
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 study offers a thorough examination of Latin America's digital transition, emphasizing its effects on social welfare and economic productivity. With an emphasis on the inclusion of vulnerable populations, such as those with disabilities, it looks at how digital technologies may promote	The rules and regulations pertaining to digital inclusion and individuals with disabilities are examined, as well as the legal framework associated with digital transformation in Latin America. The paper examines current regulations and makes suggestions for their improvement in order

#	Reference	Author(s)	Year	Abstract	Constitutional Structure
				inclusive growth and enhance quality of life.	to support digital accessibility and the defense of the rights of individuals with disabilities in the digital sphere.
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	From a rights-based, open access, and multi-stakeholder viewpoint, this publication thoroughly discusses artificial intelligence (AI) and advanced information and communication technologies (ICTs). The influence of these technologies on knowledge societies is examined, and methods for their inclusive and moral development and application are suggested.	Regulations that guarantee accessibility and equal opportunity for those with impairments in the digital realm are investigated, as is the international legal framework pertaining to artificial intelligence and ICTs. The report emphasizes how laws and regulations must be created and modified to meet the moral and human rights issues raised by these new technologies.
36	What Next: Smart Wheelchairs Will Ease Many Paths.	Bhattacharjee, Y.	2001	Using a controlled multi-stage feasibility and effectiveness approach, this study examines how smart eyewear treatments affect socio-emotional and behavioral functioning in adolescents with autism.	In order to better understand the legal environment around inclusive education and technology treatments for students with autism, this study looks at laws that support accessibility, program adaptability, and data protection while using assistive technology.
37	Artificial Intelligence: Information Technologies and Their Impacts on the Social Sciences.	Dwyer, T.	2001	This paper looks at how individuals with disabilities deal with disclosing their condition in higher education settings and how it impacts their participation and inclusion in classrooms.	The worldwide legal framework governing disability disclosure in higher education is examined in this paper, with a focus on laws and policies that support accessibility and equal opportunity for students with impairments.
38	Artificial Intelligence and Expert Systems.	Amador, L.	1996	In order to show how technological policies and practices might impact the defense and advancement of the rights of those with disabilities, this book examines the relationship between disability, human	The worldwide legal framework that safeguards the human rights of individuals with disabilities in the digital sphere is examined in this book, together with laws that guarantee accessibility and

#	Reference	Author(s)	Year	Abstract	Constitutional Structure
				rights, and information technology.	equal chances for access to information technology.

**Source:** Own elaboration.

A variety of research and resources pertaining to technology, public health, and artificial intelligence are shown in Table 1, some of which have a direct bearing on the accessibility and welfare of individuals with disabilities. The following are some important findings:

**Particular assistive technology:** Every assistive technology resource is thoroughly analyzed to see how well it satisfies the particular requirements of individuals with disabilities. For instance, research on adaptive communication systems looks at how these technologies help persons with speech or language difficulties engage and express themselves, while studies on smart wheelchairs look at how these technologies improve the mobility and freedom of people with motor disabilities.

**Global and regional viewpoints:** It's critical to take into account how the resources' discussion of regional and global perspectives relates to obstacles that persons with disabilities face when trying to access information in various circumstances. Reports from international organizations, for example, give valuable perspectives on global issues and best practices, while studies that concentrate on particular settings provide in-depth details about the resources and requirements in those areas.

**Technological developments and new opportunities:** To enhance information access for individuals with impairments, we can investigate new developments in technology as well as present assistive technologies. This covers studies on wearable technology, virtual or augmented reality apps, and cutting-edge artificial intelligence technologies that might significantly affect accessibility and inclusiveness.

**Limitations and difficulties:** Although assistive technologies present several chances to enhance information access, it's crucial to acknowledge the difficulties and constraints encountered by those with disabilities. This covers technical or design challenges with current technology as well as societal, cultural, and economic impediments.

**Legal framework:** A variety of methods in the scholarly literature are revealed by examining each author's contributions about the legal framework for individuals with disabilities. According to certain research, rules and guidelines pertaining to the availability and accessibility of technology are essential for fostering equality and inclusivity. This study emphasizes how important it is to make sure that these rules are followed in order to provide a technology environment that is inclusive. On the other hand, some research ignores the underlying legal framework in favor of concentrating more on technical issues or the real-world implications of technology for those with disabilities. This discrepancy highlights the significance of a thorough approach that takes into account the technical as well as the ethical and legal aspects of technologies for individuals with disabilities, acknowledging that a strong and well-defined legal framework is crucial to the successful adoption of these technologies.

The goal of all of this is to examine the basic legal connections between digital and educational inclusion, viewing inclusion as social justice and as the defense of procedures that result in the involvement and empowerment of every citizen. Accordingly, this broad framework believes that inclusion should lead to options that promote involvement, the visibility of rights holders, and the strengthening of fundamental human rights (Ávila-Hernández, Pirela-Morillo, & Castaño-Bedoya, 2024).

The information above makes it easier to comprehend the obstacles that individuals with disabilities encounter when trying to access information, and it also looks at ways that assistive technology and other efforts may help them get beyond these obstacles. Every site provides a different viewpoint on the prospects

and difficulties in this field, ranging from international surveys to specialized research on adaptable technology.

It is crucial to acknowledge that, despite the fact that assistive technologies have greatly enhanced the accessibility of information for numerous individuals with disabilities, notable obstacles continue to exist. These might include philosophical and cultural impediments in addition to technological, social, and economic constraints.

Adopting a holistic strategy that integrates technical advancements with inclusive legislation, accessible education, and public awareness is essential to successfully overcoming these challenges. It's also critical to keep exploring and creating fresh, creative solutions that increase accessibility and inclusion for everyone, irrespective of their aptitudes.

The legal framework creates standards and rights that provide equal opportunities and accessibility for those with impairments while using technology. The studies under evaluation emphasize how crucial it is to make sure that laws and policies pertaining to technology take into account the accessibility requirements of individuals with disabilities in order to guarantee their full involvement in society.

The humanistic nature of the law is emphasized in a larger perspective. This is demonstrated not only by the thorough examination of its underlying principles but also by its consequences, which call into question the notion of the general welfare. Accordingly, the question of why the law exists comes before the question of what the law is, which brings us to anthropology. Kaufmann, for his part, concurs with this inseparable link between the legal and the human, concluding that the concept of law is the concept of the individual human being, or it is nothing at all, meaning that the law is a representation of the concept of the human being (Castaño-Bedolla, 2013).

In addition to defending the rights of those with disabilities, a strong legal framework directs technology advancement toward more accessible and inclusive solutions. This is demonstrated by the focus on the legal framework in the materials that were sent, emphasizing how crucial it is to incorporate legal issues from the very beginning when developing technology for those with disabilities. To guarantee that technologies are developed and applied in a way that complies with legal requirements and encourages the inclusion of individuals with disabilities in all facets of contemporary life, these documents also stress the necessity of cooperation between governments, civil society organizations, the commercial sector, and the academic community.

The priorities in the national digital development policies of six Latin American and Caribbean nations—Ecuador, Guatemala, Mexico, Panama, Paraguay, and Peru—are compared in Table 2. Digital government, inclusive social development, the digital economy, infrastructure and connectivity, citizenship and rights, and digital security are some of the main areas of concentration in each of the countries included in this table. By looking at these subjects, we want to learn more about how each nation is handling the digital revolution and what their top objectives are for fostering fair and successful digital inclusion. A thorough understanding of regional initiatives to include individuals with disabilities in the digital era is offered by this comparison.

Table 2: Prioritized subjects in the Latin American and Caribbean countries' digital development strategy axis.

Country	Government Online	Development of Inclusive Society	Digital Economy	Connectivity and Infrastructure	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:** The author's own explanation, drawing from data from CEPAL, 2022 (Comisión Económica para América Latina y el Caribe, CEPAL., 2022).

The following traits are present in each of the six Latin American nations' digital development initiatives' focus areas:

#### Digital governance:

In their plans, Ecuador, Guatemala, Mexico, and Panama give top priority to digital governance. This shows a dedication to using technology to modernize government services, which might involve putting in place online services and government web portals, digitizing administrative processes, and using data to make decisions.

A successful digital government may improve public administration's effectiveness and openness, cut down on red tape, boost citizen engagement, and fortify accountability.

#### Inclusive Social Development:

The plans of Ecuador, Guatemala, Mexico, and Panama acknowledge the significance of inclusive social development. This entails making sure that all society groups have fair access to digital possibilities by leveraging technology to address social and economic divides.

Programs for digital literacy, rural Internet access, integrating those with disabilities into the digital world, and encouraging underrepresented groups to engage in the digital economy are a few examples of initiatives in this field.

#### Digital Economy:

Every nation places a high priority on the digital economy in its plans, highlighting how crucial it is for economic sectors to become more digitally connected in order to expand and remain competitive. Supporting new businesses and tech entrepreneurs, encouraging e-commerce, putting digital financial inclusion laws into place, and encouraging technology innovation in conventional industries are some possible strategies in this field.

#### Infrastructure and connection:

In its plan, only Panama gives priority to infrastructure and connection. This demonstrates how crucial it is to build strong digital infrastructure and enhance connection in order to promote social and economic advancement.

Increasing broadband coverage, setting up high-speed telecommunications networks, and enhancing digital infrastructure in rural and isolated locations are a few possible initiatives in this field.

#### Citizenship and Rights:

These concepts are part of the agendas of Paraguay, Mexico, and Ecuador. This indicates an emphasis on defending individuals' online rights and encouraging their active engagement in the digital world.

Initiatives in this field might include safeguarding personal information, encouraging online freedom of speech, controlling false information, and fostering universal digital inclusion.

#### Digital Security:

In their plans, Ecuador, Guatemala, Panama, and Peru give top priority to digital security. This shows a determination to solve cybersecurity issues and shield organizations and people from possible dangers and cyberattacks.

Data protection measures, cyberattack prevention, cybersecurity education, and international cooperation in the fight against cybercrime are some examples of initiatives in this area.

#### Legal Framework:

It has been shown that Ecuador, Guatemala, Mexico, Panama, Paraguay, and Peru are committed to incorporating provisions pertaining to individuals with disabilities into their legal systems. But it's crucial to stress that these nations may differ greatly in how far they've come in advancing laws and policies that support this group's inclusion and rights protection.

The successful implementation of inclusion and support measures, as well as increased public knowledge of the needs and rights of those with disabilities, might be the outcomes of these advancements.

These nations could be attempting to establish strong legislative frameworks and increase public understanding of the value of diversity and inclusivity.

Table 2's research shows that while digital governance and the digital economy have been prioritized in all of the nations under study, there are notable differences in the amount of focus placed on infrastructure and connection, as well as on citizenship and rights. To guarantee that all nations progress fairly toward inclusive and sustainable digital development, these disparities underscore the need for a more unified and coordinated regional strategy. In order to develop policies and strategies that encourage greater digital inclusion and guarantee fair access to artificial intelligence technology for everyone, including those with disabilities, it is imperative to identify these goals and gaps.

Conversely, plans and policies aimed at directing and advancing digital development in Latin America and the Caribbean (LAC) are known as National Digital Development Strategies (NDDS) (Martínez, Palma, & Velásquez, 2020). To guarantee that digital transformation benefits every sphere of society and leaves no one behind, these plans must place a strong focus on inclusive social development. This all-encompassing strategy acknowledges the need of encouraging people's individual and group growth in addition to the necessity of closing any social and economic divides that could emerge throughout the digitization process.

To guarantee that digital transformation benefits all facets of society, the NDDS in LAC must place a strong emphasis on inclusive social development (Martínez, Palma, & Velásquez, 2020) (Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura, UNESCO, 2017). This strategy takes a holistic approach, acknowledging the necessity of fostering both individual and group growth as well as the significance of closing any social and economic divides that can emerge throughout the digitization process.

First and foremost, the NDDS demonstrate a dedication to human development by acknowledging that citizens' empowerment and quality of life are largely dependent on their ability to utilize digital technology and digital literacy (Martínez, Palma, & Velásquez, 2020) (Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura, UNESCO, 2017). This is mirrored in the promotion of digital public services created with citizens' interests and rights in mind, as well as the emphasis on people-oriented information and communication technology (ICT).

However, the policies also emphasize social inclusion and inequality reduction, acknowledging that if digital transformation is not sufficiently handled, it might worsen already-existing disadvantages. In this context, they emphasize initiatives that attempt to lessen the digital divide across various demographic groups, including those categorized by socioeconomic position, location, gender, ethnicity, handicap status, migration status, or gender and sexual orientation. They want to make sure that everyone in society has an equal chance to use and gain from digital technology.

A broad range of subjects are covered in relation to the particular social protection sectors covered in the NDDS, ranging from citizen security and employment to health and education. Digitalization is thought to be essential to enhancing access to and the caliber of services in these fields, which are acknowledged as essential pillars of human growth and societal well-being. Nonetheless, several sectors that are given less attention are also noted, including food and nutritional security, social protection, and transportation, indicating possible areas for future digital initiatives to focus on.

In the context of the NDDS, the legal framework is essential since it offers the collection of laws, rules, and guidelines that direct and facilitate the use of these tactics. It is crucial for maintaining a strong and safe legal framework that upholds the rights of everyone, including those with disabilities, and encourages digital inclusion. Regulations are put in place through the legislative framework with the goal of removing obstacles and guaranteeing that everyone, regardless of circumstance, may use digital technology.

Additionally, the legal framework offers legal backing for advancing equitable access to and use of technology while safeguarding users' security and privacy. This covers particular clauses pertaining to digital systems interoperability, accessibility of websites and applications, and technological adaption for those with impairments. To guarantee that laws and activities in the digital sphere are properly carried out and that everyone's rights are upheld, the legal framework may also set up oversight and enforcement procedures.

The NDDS's legislative framework offers the assistance required to include certain policies meant to encourage the digital inclusion of individuals with disabilities. This might involve clauses mandating that when creating digital goods and services, technology suppliers and developers take accessibility requirements into account. Incentives and support initiatives to promote accessible technology research and innovation, as well as professional development and implementation training for inclusive solutions, may also be established by the regulatory framework.

A thorough dedication to equality and social justice in the process of digital transformation is reflected in the NDDS's inclusive social development strategy. Even if there are obstacles and variations across nations with regard to strategies and goals, it is crucial to acknowledge the significance of this shared approach in order to guarantee that digitization supports the equitable and sustainable development of the area.

The comments of individuals with disabilities who were questioned in six Latin American nations about their participation in political decision-making and their sense of accessibility to public information are shown in Table 3. The goal of this qualitative study is to determine the opportunities and challenges these people have while interacting with digital government platforms and participating in decision-making. The answers help guide suggestions for enhancing accessibility and participation while offering insightful information about the needs and experiences of this demographic.

**Table 3:** Reactions from People with Disabilities Who Were Interviewed

#	Name	Country	Age	Gender	Disability Type	Comments
1	Ana	Ecuador	32	Female	Reduced Mobility	"She thinks her nation's government ought to make information more accessible to those with disabilities."
2	Carlos	Guatemala	45	Male	Visual	"He is pleased with the quantity of easily accessible information that the Guatemalan government has made available."
3	María	México	50	Female	Hearing	"She wants more chances to be involved in significant political decisions."
4	Juan	Panamá	28	Male	None	"He believes that the government of Panama ought to be more open about what it is doing."
4	Juan	Panamá	28	Female	Intellectual	"She doesn't know what information is available in Paraguay for people with disabilities."
5	Claudia	Paraguay	60	Male	Hearing	"He thinks more needs to be done to make the internet more accessible for Peruvians with disabilities."
6	Luis Adolfo	Perú	35	Female	Motor	"Because of her disability, she has had trouble accessing government information."

#	Name	Country	Age	Gender	Disability Type	Comments
7	Rosa	Ecuador	42	Male	Visual	"He finds the online resources available in Guatemala for individuals with disabilities satisfactory."
8	Pedro	Guatemala	55	Female	Hearing	"She thinks that people with disabilities should be able to understand information about public policies more easily."
9	Laura Celia	México	40	Male	None	"He wants more chances to be involved in public consultations on pertinent topics."
10	Diego	Panamá	30	Female	Motor	"She doesn't know how she can help the Paraguayan government make decisions."
11	Ma. Patricia	Paraguay	48	Male	Hearing	"He thinks people with disabilities should have easier access to government mobile applications."
12	Luis André	Perú	25	Female	Visual	"Because of her disability, she has had trouble accessing government documents online."
13	Juliana	Ecuador	55	Male	Motor	"He believes that more internet resources are needed for Guatemalans with disabilities."
14	Javier	Guatemala	38	Female	Intellectual	"She thinks that more people in Mexico need to know about the needs of people with disabilities."
15	Ana Elena	México	47	Female	Hearing	"She is pleased with the quantity of online resources accessible to Panamanians with disabilities."
16	Luisa	Panamá	65	Male	Motor	"He doesn't know how he can help Paraguay become a more accessible information country."
17	Pablo	Paraguay	30	Female	Visual	"She believes that more funding should be allocated by the Peruvian government to accessible technologies for individuals with disabilities."
18	Sofía	Perú	42	Male	Hearing	"He thinks government officials should receive more training on how to make information more accessible to people with disabilities."
19	Josué Daniel	Ecuador	35	Female	Motor	"She is pleased with the quantity of online resources available in Guatemala for individuals with disabilities."
20	Alejandra	Guatemala	50	Male	Visual	"He thinks that more online resources created especially for individuals with disabilities should be made available by the Mexican government."
21	Jorge	México	55	Female	Hearing	"She has encountered challenges in locating pertinent information for individuals with disabilities in this nation on the internet."
22	María José	Panamá	28	Male	Motor	"He wants to get more involved in the country's transparency and accountability efforts, but he's not sure how to do it."
23	Luis José	Paraguay	40	Female	Visual	"She believes that our nation's citizens with visual impairments should have easier access to online government information."

#	Name	Country	Age	Gender	Disability Type	Comments
24	Ana María	Perú	60	Male	Hearing	"He wants more chances to engage in online discussion boards concerning disability-related matters in his nation."
25	Juan Carlos	Ecuador	45	Female	Reduced Mobility	"She thinks her nation's government ought to make information more accessible to those with disabilities."

**Source:** Own elaboration.

The following details are provided by the study's most representative variables:

### **Government Information Accessibility:**

Seven people said they are not happy with how easily accessible government information is.

Ten respondents expressed satisfaction with the quantity of internet resources provided in their respective nations for those with impairments.

Undecided/Unsure: Eight people say they are unsure or don't know how to acquire government information.

### **Taking Part in Political Determinations:**

Want to Get More Involved: Five people said they would like to get more involved in important political choices.

Four people express satisfaction with the possibilities now available to them for taking part in political choices or public discussions.

Undecided/Uncertain: 16 people are not sure if they will be able to participate in political choices.

### **Requirements for Enhancing Accessibility:**

Determined Needs: Improvements have been noted in a number of areas, including government official training, accessible technology investment, and increased understanding of the needs of those with disabilities.

People with disabilities throughout Latin America have varying opinions on how easy it is to receive government information and how they may participate in political decision-making, according to the analysis of the responses in Table 3. Many respondents point out that there is a need for major changes in the accessibility of information and chances for engagement, even though other respondents are satisfied with these aspects. These results highlight how crucial it is to put inclusive policies and accessible technology into place to guarantee that everyone, regardless of ability, has fair access to information and can actively participate in civic life.

Regarding digital accessibility for individuals with impairments, Table 4 displays the opinions of policymakers, civil society members, and technological professionals. This compilation of viewpoints offers a thorough understanding of the potential and difficulties associated with putting inclusive policies and accessible technology into practice. Finding important areas for development and action to improve digital inclusion in the area is made possible by the experts' varied backgrounds and areas of expertise.

**Table 4.** Experts' (Technological, Civil Society, and Policymakers') Answers to the Interview

#	Name	Country	Age	Gender	Expert Type	Answers
1	María Elena	Ecuador	40	Female	Assistive Technology	"Assistive technology is a powerful tool to improve the lives of people with disabilities."
2	Carlos María	Guatemala	46	Male	Accessibility Researcher	"It is important that online services are accessible to all, regardless of ability or disability."
3	Laura	México	55	Female	Digital Inclusion Consultant	"Digital inclusion is critical to make sure that humans with disabilities can absolutely take part in society."
4	Juan César	Panamá	35	Male	Public Policy Expert	"Public policy must focus on the inclusion and accessibility of people with disabilities in all settings."
5	Claudia María	Paraguay	50	Female	Adaptive Technology Specialist	"Adaptive technology can degree the gambling subject for human beings with disabilities, however they nevertheless face enormous challenges."
6	Luis Ernesto	Perú	40	Male	Software Developer	"It is essential to layout and increase software program this is handy to human beings with one-of-a-kind varieties of disabilities."
7	Ana	Ecuador	38	Female	Web Accessibility Engineer	"Web accessibility is crucial to make certain that everybody can navigate and use on-line sources effectively."
8	Patricio	Guatemala	45	Male	Universal Design Expert	"Universal layout is prime to growing merchandise and environments which might be usable with the aid of using everyone, consisting of people with disabilities."
9	Rosa María	México	52	Female	Assistive Technologies Specialist	"Assistive technology are critical equipment for selling the independence and participation of humans with disabilities."
10	Santiago Andrés	Panamá	30	Male	Accessibility Consultant	"Accessibility must be a important attention withinside the improvement of virtual technology and services."
11	Patricia	Paraguay	57	Female	Interface Design Expert	"Designing intuitive and user-pleasant interfaces is essential to making sure accessibility for human beings with disabilities."
12	Juan Diego	Perú	42	Male	Technological Inclusion Researcher	"Technological inclusion includes making sure that everybody can similarly advantage from virtual innovations."
13	Elisa	Ecuador	48	Female	App Development Expert	"Developing reachable programs is critical for supplying equitable get admission to statistics and services."
14	Javier	Guatemala	55	Male	Web Accessibility Consultant	"Web accessibility should be a concern withinside the layout and improvement of on-line web sites and applications."
15	Elena	México	47	Female	Digital Inclusion Specialist	"Digital inclusion is going past bodily access; it entails disposing of boundaries and making sure the whole participation of everyone."

Source: Author's own elaboration.

Table 4 offers the responses from specialists (in generation, representatives of civil society corporations, and policymakers) interviewed within the study. They spotlight diverse worries and desires concerning virtual accessibility for human beings with disabilities. On one hand, numerous specialists emphasize the dearth of unique sources tailor-made to the desires of this group, including cell programs and on-line structures that make certain equitable get right of entry to statistics and offerings. This indicates a vast hole within the availability of technology able to assembly the particular desires of human beings with disabilities.

Additionally, the responses additionally spotlight the want for more focus of the limitations confronted with the aid of using human beings with disabilities within the virtual environment. This underscores the significance of regarding designers, developers, and policymakers in growing inclusive technological answers that deal with the numerous desires of this group.

Another applicable factor is the dearth of readability in governmental statistics, which in addition complicates get right of entry to public offerings and participation in civic existence for human beings with disabilities. This highlights the want for clearer rules and rules that sell virtual accessibility and make certain that on-line statistics and offerings are handy to everyone, irrespective of their capacity or disability.

All this emphasizes the significance of overcoming present limitations to virtual accessibility and selling an extra inclusive method to generation improvement and implementation. This entails now no longer handiest growing unique technological gear for human beings with disabilities however additionally elevating focus approximately those problems and imposing clearer and extra powerful rules and rules to make certain same get right of entry to for all.

Based at the outcomes and evaluation received from the research, the subsequent pointers and pointers are offered to reinforce get right of entry to synthetic intelligence technology for human beings with disabilities within the region:

1. **Development of Inclusive Policies.** Governments must set up clean rules that sell statistics accessibility for human beings with disabilities. These rules must deal with components including growing handy content material, designing inclusive virtual structures, and supplying assistive technology.
2. **Training and Awareness.** It is critical to offer schooling to authorities' officers and statistics carriers on a way to create handy content material and use assistive technology. Additionally, it's far important to elevate public focus of the desires and rights of human beings with disabilities in phrases of get right of entry to to statistics.
3. **Investment in Accessible Technologies.** Governments and applicable establishments must make investments within the improvement and implementation of handy technology, including display screen readers, voice reputation software, and handy cell programs. This technology can facilitate get right of entry to statistics for human beings with visible, auditory, or motor disabilities.
4. **Universal Design.** Digital structures and on-line offerings must be designed in step with widely wide-spread layout ideas, making sure they may be handy to human beings with a extensive variety of skills and disabilities. This consists of the usage of alt tags on images, clean navigation, and customization options.
5. **Collaboration with Civil Society.** Governments and establishments must collaborate intently with civil society corporations that constitute the pastimes of human beings with disabilities. These corporations can offer treasured statistics approximately the desires and limitations that human beings with disabilities face in getting access to statistics.
6. **Continuous Monitoring and Evaluation.** It is critical to set up tracking and assessment mechanisms to degree development in statistics accessibility. This consists of amassing facts on using assistive technology, figuring out regions for improvement, and adjusting rules and practices as needed.
7. **Promotion of International Standards.** Countries can undertake and sell worldwide net accessibility requirements, including the Web Content Accessibility Guidelines (WCAG) evolved with the aid of using the World Wide Web Consortium (W3C). Adopting those requirements facilitates make certain that web sites and programs are handy to all human beings, inclusive of people with disabilities.

8. Promotion of Research and Development. Research and improvement of latest technology and progressive tactics that decorate statistics get right of entry to must be encouraged. This may want to consist of the improvement of computerized signal language translation gear, augmented truth navigation structures for human beings with visible disabilities, and handy cell programs for human beings with cognitive disabilities.
9. Inclusion in Education. It is vital to make certain that human beings with disabilities have get right of entry to inclusive and fine training that permits them to gather virtual and IT skills. This lets in them to apply assistive technology and get right of entry to statistics independently.
10. Active Participation of People with Disabilities. People with disabilities must actively take part withinside the layout, implementation, and assessment of rules and applications associated with statistics accessibility. Their revel in and expertise are critical to make certain that answers are powerful and tailor-made to their desires.
11. Incentives for the Private Sector. Incentives and reputation may be set up for groups and corporations that undertake inclusive practices withinside the layout of virtual merchandise and offerings. This may also consist of tax incentives, public reputation, or the inclusion of accessibility standards in authorities tenders and contracts.
12. Public Awareness. It is critical to elevate public focus approximately the significance of statistics accessibility for human beings with disabilities. This may be executed via focus campaigns, outreach events, and the inclusion of accessibility problems in formal training and expert schooling.
13. Development, Maintenance, and Strengthening of the Legal Framework. Develop, maintain, and make stronger legal guidelines and rules that make certain statistics accessibility for human beings with disabilities, inclusive of consequences for non-compliance.
14. Compliance and Supervision. Establish oversight our bodies chargeable for making sure compliance with accessibility legal guidelines and supplying clean approaches for human beings with disabilities to file limitations and get hold of activate and powerful answers.
15. Inclusion in Public Policies. Integrate public rules centered on accessibility as an essential human right, making sure same get right of entry to statistics for all.

By imposing those pointers and pointers, governments and establishments are taking concrete steps to construct an inclusive destiny wherein everyone, irrespective of their skills or disabilities, has same get right of entry to statistics and might completely take part in society. These movements now no longer handiest sell fairness and social justice however additionally mirror a proper dedication to the ideas of human rights and dignity for all citizens. By growing statistics accessibility and fostering inclusion in all components of public and political existence, an effective and transformative precedent is about in an effort to advantage cutting-edge and destiny generations. This holistic and proactive method is critical for constructing an extra equitable and numerous society wherein each person has the possibility to make a contribution and thrive on same phrases.

## 5. CONCLUSIONS

This study examines how governmental policies and legal frameworks in Ecuador, Guatemala, Mexico, Panama, Paraguay, and Peru affect disabled people's access to and usage of artificial intelligence (AI) technologies. It describes and identifies the obstacles preventing the region's citizens from using these technologies, and it makes suggestions for how to get past them.

A varied and complex reality about the accessibility of government information and the political participation of people with disabilities in the nations under study is revealed by the analysis of the semi-structured interviews. While some respondents are happy that information is readily available online and are interested in getting more involved in political decisions, others are concerned about the limited chances for political participation and the lack of accessibility.

The findings highlight the necessity of putting in place tangible steps to enhance public information's format and content accessibility so that people with disabilities can use it efficiently. In this sense, norms and laws that support digital accessibility are established in large part by the legal system and public policies. Adopting

current guidelines for making websites and apps accessible to people with disabilities is the first step in this process. Another is putting inclusive design principles into place, which take into account the requirements of this demographic at every turn.

AI developments present important chances to improve participation and accessibility for people with disabilities. Tools like virtual assistants, text and speech recognition, and data analysis to customize the user experience can be obtained by incorporating AI into digital apps and services. However, the legal framework and public policies must address AI accessibility from the beginning of its development if these technologies are to be truly inclusive.

It is imperative that particular measures be developed to encourage increased representation and engagement of people with disabilities in public and political life. This might entail establishing inclusive policies that guarantee accessible political forums and procedures; educating public servants on accessibility and inclusion matters; offering financial incentives to the private sector to implement accessible technology; and incorporating global digital accessibility standards.

Promoting inclusive AI and investing in accessible technologies are essential for enabling information access and political engagement. Governments ought to support the study and creation of AI-based solutions that cater to the unique requirements of people with disabilities. Examples of such solutions include enhancing digital platform accessibility and creating new tools that make engagement and communication easier.

In the end, these results emphasize how crucial cooperation is to advancing inclusion and equitable chances for people with disabilities in all spheres of society. Governments, civil society organizations, the commercial sector, and the general public must all continue to be committed to this. Moving toward a more just and equitable society where people with disabilities can fully exercise their rights and actively participate in the development of their communities requires intersectoral cooperation, the implementation of a strong legal framework, and inclusive public policies.

## BIBLIOGRAPHIC REFERENCES

- Amador, L. (1996). *Inteligencia Artificial y Sistemas Expertos*. Universidad de Córdoba.  
<http://hdl.handle.net/10396/6938>
- Ávila-Hernández, F. M., Pirela-Morillo, J., y Castaño-Bedoya, A. (2024). Escenarios de prevención y de inclusión educativa en Colombia: inclusión digital e inclusión de migrantes. *Encuentros. Revista de Ciencias Humanas, Teoría Social y Pensamiento Crítico*, 21 (mayo-agosto), 287–300.  
<https://doi.org/10.5281/zenodo.11118290>
- Barajas, J. L. L. (2006). Recursos tecnológicos y acceso a la información para usuarios con discapacidad visual. *Revista general de información y documentación*, 16(1), 105.  
<https://dialnet.unirioja.es/servlet/articulo?codigo=2083040>
- Bhattacharjee, Y. (2001, May 10). What Next; Smart Wheelchairs Will Ease Many Paths. *The New York Times*. <https://www.nytimes.com/2001/05/10/technology/what-s-next-smart-wheelchairs-will-ease-many-paths.html>
- Bietti, M. F. (2023). Personas con discapacidad e inclusión laboral en América Latina y el Caribe: principales desafíos de los sistemas de protección social. *Documentos de Proyectos (LC/TS.2023/23)*. Comisión Económica para América Latina y el Caribe, CEPAL.  
<https://repositorio.cepal.org/server/api/core/bitstreams/1535653e-6f21-456e-bb5a-dc446ff5c8ad/content>
- Blogna, S. H. (2020). Democracia y derechos humanos. Un análisis sobre cómo la rendición de cuentas horizontal impacta en la vida de las personas con discapacidad.  
[https://ridaa.unq.edu.ar/bitstream/handle/20.500.11807/2375/TD\\_2020\\_blogna\\_009.pdf?sequence=1](https://ridaa.unq.edu.ar/bitstream/handle/20.500.11807/2375/TD_2020_blogna_009.pdf?sequence=1)
- Braga, R. A., Petry, M., Reis, L. P., & Moreira, A. P. (2011). IntellWheels; Modular development platform for intelligent wheelchairs. *Journal of Rehabilitation Research & Development*, 48(9),

- 1061-1076. <https://doi.org/10.1682/JRRD.2010.08.0139>
- Castaño-Bedolla, A. (2013). Introducción a la razón práctica del derecho. Una perspectiva del iusnaturalismo renovado. Universidad Sergio Arboleda. [https://www.researchgate.net/publication/333390571\\_INTRODUCCION\\_A\\_LA\\_RAZON\\_PRACTICA\\_DEL\\_DERECHO\\_UNA\\_PERSPECTIVA\\_DEL\\_IUSNATURALISMO\\_RENOVADO](https://www.researchgate.net/publication/333390571_INTRODUCCION_A_LA_RAZON_PRACTICA_DEL_DERECHO_UNA_PERSPECTIVA_DEL_IUSNATURALISMO_RENOVADO)
- Caverly, D. C. (2008). Techtalk: Assistive Technology for Writing. *Journal of Developmental Education*, 31(3), 36-37. <https://files.eric.ed.gov/fulltext/EJ832683.pdf>
- Comisión Económica para América Latina y el Caribe, CEPAL. (2022). Un camino digital para el desarrollo sostenible de América Latina y el Caribe. <https://www.cepal.org/es/publicaciones/48460-un-camino-digital-desarrollo-sostenible-america-latina-caribe>
- Cortés, J. E. (2022). Accesibilidad web de las entidades públicas colombianas. [https://repository.uniminuto.edu/bitstream/10656/15089/3/Libro\\_Accesibilidad%20Web%20de%20las%20entidades%20publicas%20colombianas\\_2022.pdf](https://repository.uniminuto.edu/bitstream/10656/15089/3/Libro_Accesibilidad%20Web%20de%20las%20entidades%20publicas%20colombianas_2022.pdf)
- Cortés, U., Annicchiarico, R., Vázquez-Salceda, J., Urdiales, C., Cañamero, L., López-Sánchez, M., Sánchez-Marré, M., & Caltagirone, C. (2003). Assistive technologies for the disabled and for the new generation of senior citizens: the e-Tools architecture. *AI Communications*, 16(3), 193-207. [https://www.academia.edu/90817056/Assistive\\_technologies\\_for\\_the\\_disabled\\_and\\_for\\_the\\_new\\_generation\\_of\\_senior\\_citizens\\_the\\_e\\_Tools\\_architecture?f\\_r=1372](https://www.academia.edu/90817056/Assistive_technologies_for_the_disabled_and_for_the_new_generation_of_senior_citizens_the_e_Tools_architecture?f_r=1372)
- Davies, D. K., Stock, S. E., & Wehmeyer, M. L. (2003). A Palmtop Computer-Based Intelligent Aid for Individuals with Intellectual Disabilities to Increase Independent Decision Making. *Research and Practice for Persons with Severe Disabilities*, 28(4), 182. <https://doi.org/10.2511/rpsd.28.4.182>
- Dewsbury, G., & Linskill, J. (2011). Smart home technology for safety and functional independence: the UK experience. *NeuroRehabilitation*, 28(3), 249-60. <https://doi.org/10.3233/NRE-2011-0653>
- Dwyer, T. (2001). Inteligência artificial, tecnologias informacionais e seus possíveis impactos sobre as Ciências Sociais. *Sociologias*, (5). <https://doi.org/10.1590/S1517-45222001000100004>
- Galipienso, M. I. A., Quevedo, M. A. C., Pardo, O. C., Ruiz, F. E., & Ortega, M. A. L. (2003). *Inteligencia artificial: Fundamentos, práctica y aplicaciones*. Ediciones Paraninfo.
- García, M., & Cotrina, M. (2022). Políticas públicas en educación inclusiva en contextos de innovación e internacionalización. Editorial Corporación Universitaria del Meta – UNIMETA.
- Hernández-Sampieri, R., & Mendoza Torres, C. P. (2022). *Metodología de la investigación: las rutas cuantitativas, cualitativas y mixta*. Editorial McGraw Hill.
- Hernández, A. (2023). La protección reforzada de los derechos humanos de las personas con discapacidad bajo el paradigma de la inclusión. *Andares: Revista de Derechos Humanos y de la Naturaleza*, (3), 37-47. <https://doi.org/10.32719/29536782.2023.1.4>
- Hernández, P. A., & Samada, Y. (2021). La educación inclusiva desde el marco legal educativo en el Ecuador. *Revista de Ciencias Humanísticas y Sociales (ReHuSo)*, 6(3), 63-81. <https://doi.org/10.5281/zenodo.5512949>
- Hidalgo, J. A. (2020). Desafíos en la era digital: identidad hipermedial, alfabetización mediática e inclusión digital. J. C. Suárez & S. Marín. *Ética, comunicación y género: debates actuales*. Editorial Dykinson.
- Hoey, J., Schröder, T., & Althothi, A. (2016). Affect control processes: Intelligent affective interaction using a partially observable Markov decision process. *Artificial Intelligence*, 230, 134-172. <https://doi.org/10.1016/j.artint.2015.09.004>
- Jaeger, P. T. (2014). Internet Justice: Reconceptualizing the Legal Rights of Persons with Disabilities to Promote Equal Access in the Age of Rapid Technological Change. *Review of Disability Studies. An International Journal*, 9(1), <https://www.rdsjournal.org/index.php/journal/article/view/71/257>
- Jiménez, A. E. (2020). Educación inclusiva e igualdad de las personas con discapacidad en la transformación digital. *Revista jurídica valenciana*, 35, 1-13. [https://www.revistajuridicavalenciana.org/wp-content/uploads/0035\\_0006\\_01\\_EDUCACION-INCLUSIVA-A-DISCAPACITADOS-EN-ERA-DIGITAL.pdf](https://www.revistajuridicavalenciana.org/wp-content/uploads/0035_0006_01_EDUCACION-INCLUSIVA-A-DISCAPACITADOS-EN-ERA-DIGITAL.pdf)
- Kerschbaum, S. L., Eisenman, L. T., & James, J. M. (2017). *Negotiating disability: Disclosure and higher education*. University of Michigan Press. <https://doi.org/10.3998/mpub.9426902>

- Lazar, J., & Stein, M. A. (Eds.). (2009). *Disability, Human Rights, and Information Technology*. Pennsylvania Studies in Human Rights. University of Pennsylvania Press.
- López, A. (2022). *Inclusión tecnológica: retos y perspectivas*. Gobierno de México, Organización de Estados Iberoamericanos para la Educación, la Ciencia y la Cultura, y Comisión Nacional para la Mejora Continua de la Educación. <https://www.mejoredu.gob.mx/images/publicaciones/retos-y-perspectivas-24.pdf>
- Martínez, R., Palma, A., & Velásquez, A. M. (2020). *Revolución tecnológica e inclusión social: reflexiones sobre desafíos y oportunidades para la política social en América Latina*. [https://www.cepal.org/sites/default/files/publication/files/45901/S2000401\\_es.pdf](https://www.cepal.org/sites/default/files/publication/files/45901/S2000401_es.pdf)
- Medina-Romero, M., Hurtado-Tiza, D., Muñoz-Murillo, J., Ochoa-Cervantez, D., & Izundegui-Ordóñez, G. (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>
- Mihailidis, A., Melonis M., Keyfitz, R., Lanning, M., Van Vuuren, S., Bodine, C. (2016). 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. *Disabil Rehabil Assist Technol*, 11(7), 604-12. <https://doi.org/10.3109/17483107.2015.1063713>.
- Mihailidis, A., Blunsden, S., Boger, J., Richards, B., Zutis, K., Young, L., & Hoey, J. (2010). Towards the development of a technology for art therapy and dementia: Definition of needs and design constraints. *The Arts in Psychotherapy*, 37, 293-300. <https://doi.org/10.1016/j.aip.2010.05.004>
- Miksztai-Réthey, B., & Faragó, K. B. (2018). An Exploratory Case Study on Letter-based, Head-movement-driven Communication. *Technology and Disability*, 29(4), 153-161. <https://doi.org/10.3233/TAD-160163>
- Odone, A., Buttigieg, S., Ricciardi, W., Azzopardi-Muscat, N., & Staines, A. (2019). Public health digitalization in Europe: EUPHA vision, action and role in digital public health. *European Journal of Public Health*, 29, Supplement\_3, 28–35. <https://doi.org/10.1093/eurpub/ckz161>
- Organization for Economic Co-operation and Development, OECD. (2019). *Shaping the digital transformation in Latin America. Strengthening productivity, improving lives*. <https://www.oecd.org/sti/shaping-the-digital-transformation-in-latin-america-8bb3c9f1-en.htm>
- Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura, UNESCO. (2017). *Sociedad digital: brechas y retos para la inclusión digital en América Latina*. <https://unesdoc.unesco.org/ark:/48223/pf0000262860>
- Pinzón, M. P. (2010). *Nanotecnología en los alimentos*. Universidad Nacional Abierta y a Distancia (UNAD). <https://repository.unad.edu.co/bitstream/handle/10596/1536/2010-03P-05.pdf?sequence=1&isAllowed=y>
- Šabanović, S., & Chang, W. L. (2016). Socializing robots: constructing robotic sociality in the design and use of the assistive robot PARO. *AI & Society*, 31, 537–551. <https://doi.org/10.1007/s00146-015-0636-1>
- Sharma, V., Simpson, R., Lopresti, E., & Schmeler, M. (2010). Evaluation of semiautonomous navigation assistance system for power wheelchairs with blindfolded nondisabled individuals. *Journal of Rehabilitation Research & Development*, 47(9), 877-90. <https://doi.org/10.1682/jrrd.2010.02.0012>.
- Simpson, R. (2005). Smart wheelchairs: A literature review. *Journal of rehabilitation research and development*, 42, 423-36. <https://doi.org/10.1682/JRRD.2004.08.0101>.
- United Nations. (2016). *Global Sustainable Development Report*. [https://sustainabledevelopment.un.org/content/documents/2328Global%20Sustainable%20development%20report%202016%20\(final\).pdf](https://sustainabledevelopment.un.org/content/documents/2328Global%20Sustainable%20development%20report%202016%20(final).pdf)
- United Nations. (2006). *Convención sobre los derechos de las personas con discapacidad*. <https://www.un.org/esa/socdev/enable/documents/tccconvs.pdf>
- United Nations Childrens Fund, UNICEF. (2017). *The state of the World's Children 2017. Children in a digital world*. <https://www.unicef.org/reports/state-worlds-children-2017>
- United Nations Educational, Scientific and Cultural Organization, UNESCO. (2019). *Steering AI and advanced ICTS for knowledge societies. A rights, Openness, Access and Multistakeholder Perspective*. <https://unesdoc.unesco.org/ark:/48223/pf0000372132>
- Vahabzadeh, A., Keshav, N. U., Abdus-Sabur, R., Huey, K., Liu, R., & Sahin, N. T. (2018). *Improved Socio-Emotional and Behavioral Functioning in Students with Autism Following School-Based*

- Smartglasses Intervention: Multi-Stage Feasibility and Controlled Efficacy Study. Behavioral Sciences, 8(10), 85. <https://doi.org/10.3390/bs8100085>.
- Wang, D. (2017). Deep Learning Reinvents the Hearing Aid: Finally, wearers of hearing aids can pick out a voice in a crowded room. IEEE Spectrum, 54(3), 32-37. <https://doi.org/10.1109/MSPEC.2017.7864754>.
- World Health Organization. (2016). Global diffusion of eHealth: Making universal health coverage achievable. Global Observatory for eHealth. <https://iris.who.int/bitstream/handle/10665/252529/9789241511780-eng.pdf?sequence=1>
- World Health Organization. (2019, September 9). Better health for people with disabilities [infographic]. <https://www.who.int/france/multi-media/details/better-health-for-people-with-disabilities>
- Zeng, Q., Teo, C. L., Rebsamen, B., & Burdet, E. (2008). Collaborative path planning for a robotic wheelchair. Disabil Rehabil Assist Technol, 3(6), 315-24. <https://doi.org/10.1080/17483100802280923>.

**Conflicto de Intereses:** Los autores afirman que no existen conflictos de intereses en este estudio y que se han seguido éticamente los procesos establecidos por esta revista. Además, aseguran que este trabajo no ha sido publicado parcial ni totalmente en ninguna otra revista.

**Financiación:** Los autores declaran que este estudio no recibió ningún tipo de financiación externa por parte de agencias públicas, privadas, ni de organizaciones sin ánimo de lucro. Todas las actividades de investigación, análisis y desarrollo fueron realizadas con recursos propios.