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Digital Vulnerabilities: Victimization of Disabled individuals

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ABSTRACT

Technology and digital development can be an critical device to bridge the divide among Persons with incapacity (PwD) and society offering them a way of social inclusion. However, the government is not able to obtain the purpose of virtual accessibility for PwDs growing a void of possibilities and social integration. This paper pursuits to study the goals laid down by using numerous National and International Commissions for cyber inclusivity of especially capable folks. The use of digital tools can foster their social and economic boom. This necessitates right implementation of suggestions from global commissions inside India. Through a comprehensive analysis of those dreams and their implementation, this paper ambitions to shed light on the challenges and possibilities in realizing virtual accessibility for PwDs in India. The Act covers tips issued to web sites, commercial places to follow an inclusive method to facilitate cyber get entry to to PwD. It in addition examines the essential provisions and implications of India's RPWD Act, highlighting its importance in ensuring the full inclusion and participation of disabled individuals inside the present day group of workers. Lastly, the author suggests rules and practices that promote their inclusion and empowerment.

Keywords; Digital Advancement, Persons with Disability (PwD), Economic growth, International Commissions, RPWD Act

INTRODUCTION

The inclusive technique of disposing of boundaries that impede individuals with disabilities from interacting with or the use of digital resources is called "virtual accessibility." Ensuring digital accessibility is vital for empowering specially abled people empower themselves and engage in all facets of Indian society. Ensuring equal access to data and communication generation, such as electronic documents, cell applications, and web sites, is part of this. A take a look at on digital accessibility need to cope with the technological, legislative, and social problems that effect the implementation of reachable virtual services, given India's heterogeneous population and diverse degrees of infrastructure. Additionally, it might entail assessing India's adherence to global agreements just like the UN Convention at the Rights of Persons with Disabilities. The layout and improvement of digital environments, offerings, and merchandise that are easily useable and accessible with the aid of people with more than a few disabilities or impairments is known as virtual accessibility and usability. Ensuring that everybody, irrespective of capacity, can efficiently get admission to, realize, and engage with virtual content and technologies is the primary goal of digital accessibility and value. The goal of virtual accessibility is to take away boundaries that stand within the way of human beings with disabilities the usage of and getting access to digital sources, inclusive of software, digital documents, mobile packages, and websites. This entails making inns for the ones who have disabilities of any type, whether or not they be motor, cognitive, auditory, or visual. Providing alternative textual content for pix, captions for films, keyboard navigation selections, colour assessment changes, and display reader software compatibility are some of the techniques applied to improve digital accessibility.

RESEARCH OBJECTIVES

- To evaluation literature on digital utilization for development of disabled individuals and assessing shortcomings in India w.R.T the implementation of accurate practices for disabled in the arena of virtual era.
- To Identify barriers and challenges confronted by means of users with disabilities in gaining access to and using technology.
- Develop and test prototypes or evidence-of-idea answers for cleared accessibility and usefulness.
- Evaluate the effectiveness and impact of projected answers via user checking out and empirical studies.
- Assess the social and worldly blessings of improving entire range availability and value.
- Evaluate the potency for inflated inclusion, participation, and paintings possibilities for people with disabilities.

RESEARCH METHODOLOGY

A doctrinal studies technique become used for this have a look at on digital accessibility for people with impairments in India. By methodically scanning pertinent online databases such HeinOnline, Manupatra, SCC Online, and legit authorities web sites, an intensive literature assessment become performed. Boolean operators and specific keywords pertaining to "virtual accessibility," "humans with disabilities," "information and conversation technology," and "Indian laws and rules" have been used within the search approach. The most important aim of the literature search become to discover and compare primary legal documents, along with the "Rights of Persons with Disabilities Act of 2016", pertinent statutes, court rulings, and reliable government directives regarding virtual accessibility in India. To reap a radical expertise, different secondary resources have been checked out, together with books, scholarly articles, reviews from reliable corporations, and authoritative commentaries.

LITERATURE REVIEW

"Malik, S., Elbatal, I., & Khan, S.U. (2024)"¹, The paper describes how "Information and communication technology (ICT)" plays a significant part in the lives of individuals with disabilities by providing tailored solutions to address their specific needs. These technologies offer accessibility features such as screen readers and voice recognition software, enabling individuals with visual or hearing impairments to access digital content and communicate effectively. In the realm of education, ICT facilitates inclusive learning environments through adaptive technologies and online resources, supporting students with disabilities in their academic pursuits. Moreover, ICT opens up employment opportunities for individuals with disabilities by offering tools for remote work, job training programs, and assistive technologies that enable workplace accommodations. Beyond education and employment, ICT empowers individuals with disabilities to live more independently through assistive devices for daily tasks, smart home technology, wearable devices, and mobility aids. Additionally, ICT fosters social inclusion by facilitating social connections, community engagement, and access to online support networks, thereby enriching the social lives of individuals with disabilities. Overall, ICT serves as a catalyst for breaking down barriers, promoting equal opportunities, and upgrading the standards of living for individuals with disabilities in various aspects of their daily lives.

One key gap lies in the need for more in-depth exploration of specific technologies and their effectiveness to cater for the requirements of individuals with different types of problems. Understanding how various ICT tools can be optimized to cater to specific disabilities can enhance accessibility and usability for a wider range of users. Additionally, there is a gap in examining the socio-economic barriers that hinder access to "assistive technologies for individuals with disabilities". The research could delve into the long-term impact of inclusive technological solutions on the overall well-being and quality of life of people with disabilities, providing insights into the effectiveness and sustainability of ICT interventions.

"Mohamad Ahmad Saleem Khasawneh" (2024)², The study offers valuable recommendations to enhance the accessibility of social media and digital media for disabled persons. It emphasizes the importance of prioritizing accessibility features like keyboard shortcuts, voice commands, and screen reader support to facilitate effective navigation for users with motor impairments. Consistent and platform-specific implementation of these features is necessary to ensure a seamless user experience and reduce the risk of encountering inaccessible parts or functionalities. Policymakers, developers, and platform creators are encouraged to adopt a proactive and inclusive design approach, incorporating accessibility features from the outset to address gaps and promote equal access to digital experiences. Collaboration and innovation among stakeholders are also highlighted as essential for guaranteeing proper key approach and usage for individuals with motor disabilities. Additionally, providing comprehensive instructions and guidelines on crafting accessible content, along with implementing feedback mechanisms for reporting inaccessible content, can empower users and platform developers to uphold inclusivity and accessibility principles within the digital realm. By following these recommendations, social media platforms can create a more inclusive and accessible online environment, enabling persons who have motor disabilities engage in major numbers in digital interactions and activities.

Dobransky, K., & Hargittai, E. (2016)³, Though various demographic groups' online experiences have been taken into account in the literature on digital inequality, comparatively little research has looked the way the specially abled have integrated online tools and smart phones into their daily tasks. This research investigates this subject by taking into account both the obstacles to Internet use and the opportunities the Internet presents PWD, based on a national survey of American citizens. The results show that many PWD face obstacles when trying to access the Internet. Compared to people without disabilities, those with four out of the six types of disabilities examined are probably not that high match. After taking into account demographics, web usage abilities, and prior Internet experiences, those who are deaf or hard of hearing do not fall behind when it comes to Internet access.

Adams Alison and Kreps (2006)⁴, The four discourses introduced in the paper to discuss disabled Web access are the digital divide, which focuses on disparities in access to technology; the social construction of disability, which emphasizes societal barriers over individual deficits; the legal discourse, which pertains to anti-discrimination legislation; and the web accessibility discourse, which involves technical guidelines for making websites accessible

¹ Malik, S., Elbatal, I. and Khan, S.U., "People with Disabilities, the Age of Information and Communication Technology and the Prevailing Digital Divide—A Descriptive Analysis." *Journal of Disability Research* (2024).

² "Mohamad Ahmad Saleem Khasawneh, "Accessibility Matters: Investigating the Usability of Social Media Platforms for Individuals with Motor Disabilities" 12 *Studies in Media and Communication* (2024)."

³ "Dobransky, K., & Hargittai, E., "Unrealized potential: Exploring the digital disability divide". *Poetics*, 58, 18-28 (2016)."

⁴ "Adam, A., Kreps, D., "Web Accessibility: A Digital Divide for Disabled People?" IFIP International Federation for Information Processing, 208. Springer (2006)."

to individuals with disabilities. "The lack of dialogue between the four discourses introduced in the paper - digital divide, social construction of disability, legal, and Web accessibility - has had a significant impact on the accessibility of websites for disabled individuals. This lack of communication has resulted in a passive liberal approach towards disability discrimination, which has become ingrained in widely used automatic software tools. As a consequence, the view that website accessibility approval may be considered superficial or inadequate has been reinforced"

Deepti Samant Raja (2016), While the literature discusses the impact of digital technologies on persons with disabilities, there is a lack of focus on the "intersectionality of disability with other social categories such as gender, race, and socioeconomic status. Future research could delve into how individuals at the intersection of multiple marginalized identities experience and access digital technologies"⁵.

Social and online accessibility for persons with disabilities has become a crucial aspect of ensuring equal access to information and resources on the internet. Fernández et al. (2016)⁶ discuss guidelines for creating accessible digital documents in research environments, transfer, and scientific dissemination, emphasizing the importance of accessibility in academic and social contexts. Ismail et al. (2016)⁷ focus on web accessibility in the North Eastern Indian region, highlighting common checkpoint errors and providing suggestions for enhancing accessibility on websites. Giannoumi et al. (2017)⁸ explore the relationship between web accessibility laws and policies and copyright protections, emphasizing the need to harmonize the rights of persons with cognitive problems. "Sonowal et al. (2017)"⁹ address accessibility barriers in anti-phishing browser extensions for persons with visual impairments, emphasizing the importance of security in digital environments for individuals with disabilities. Stratton et al. (2020) discuss the scarcity of tools for health and body for this community, particularly during the COVID-19 pandemic, highlighting the widening gap in accessibility to digital exercise resources. Leblais (2021)¹⁰ introduces the DARE Index, a tool for monitoring the progress of digital accessibility worldwide, emphasizing the importance of advocacy for promoting digital inclusion. Kumar (2021)¹¹ focuses on digital and web content accessibility in Indian Open Universities, highlighting primary accessibility features and the importance of ensuring equal access to educational resources. Botelho (2021)¹² discusses virtual barriers and real opportunities in accessibility to digital technology, emphasizing the importance of addressing barriers to ensure equal access for individuals with disabilities. Overall, the literature highlights the significance of how disabled community should have better access and engagement to technological tools that will help them in life. Emphasis is laid on how more reforms should be done to previous set policies. From addressing common errors on websites to exploring the relationship between accessibility laws and copyright protections, the research underscores the significance of promoting digital inclusion for individuals with disabilities.

ANALYSIS

Digital accessibility for folks with disabilities in India is a vital trouble that has been addressed thru various legislations and case laws. The Indian legal system acknowledges the significance of making sure identical get entry to to digital resources and technology for individuals with disabilities. It recognizes the proper to same access to information and conversation technologies, such as the net, for all genders in this special need community . It mandates the government to take appropriate steps for compliance and accessibility.

Rajashree Makund Masalkar v. Chief Commissioner for Persons with Disabilities & Ors. (2020) , the Bombay High Court emphasized the want for accessible websites and digital systems for people with disabilities.

The court directed the Reserve Bank of India (RBI) to make sure that its website and cell applications observe the "Web Content Accessibility Guidelines (WCAG)" 2.Zero standards, which provide recommendations for making net content greater on hand.

The court also directed the RBI to behavior periodic audits to keep accessibility standards.

While the prison framework and case legal guidelines have emphasized the importance of digital accessibility, the implementation stays a undertaking.

1. Lack of consciousness, restricted sources, and inadequate enforcement mechanisms have hindered the effective implementation of accessibility standards.
2. Continuous efforts are needed to boom attention, offer education, and allocate resources for making digital assets handy.

⁵ <https://thedocs.worldbank.org/en/doc/123481461249337484-0050022016/original/WDR16BPBridgingtheDisabilityDividethroughDigitalTechnologyRAJA.pdf>. (n.d.).

⁶ "Lazar, J. & Goldstein, D. & Taylor, A. "Ensuring Digital Accessibility through Process and Policy. Ensuring Digital Accessibility through Process and Policy." 1-230 (2015)."

⁷ Abid Ismail; K S Kuppusamy; "Accessibility Analysis of North Eastern India Region Websites for Persons with Disabilities", INTERNATIONAL CONFERENCE ON ACCESSIBILITY TO DIGITAL ..., (2016)

⁸ G. Anthony Giannoumi; Molly K. Land; Wondwossen M. Beyene; Peter Blanck; "Web Accessibility and Technology Protection Measures: Harmonizing The Rights of Persons with Cognitive Disabilities and Copyright Protections on The Web", JOURNAL OF PSYCHOSOCIAL RESEARCH,(2017)

⁹ Sonowal, Gunikhan & Kuppusamy, K S & Kumar, Ajit., "Usability evaluation of active anti-phishing browser extensions for persons with visual impairments", (2017).

¹⁰ Leblais, Axel & Montenegro, Viviana & Gould, Martin & Bianchi, Francesca, (2020).

¹¹ Kumar, Akhilesh, Digital and Web Content Accessibility for Persons with Disabilities: A case study of Indian open universities. 10.21203/rs.3.rs-772144/v1 (2021).

¹² Botelho, Fernando, Accessibility to digital technology: Virtual barriers, real opportunities. Assistive Technology. 33. 27-34. 10.1080/10400435.2021.1945705 (2021).

Three. Regular audits and monitoring mechanisms ought to be mounted to make sure compliance with accessibility standards.

“Disabled Rights Group v. Union of India & Ors. (2017)”: The Delhi High Court diagnosed the significance of creating virtual sources handy to individuals with disabilities. The court docket directed the critical and kingdom governments to ensure that all government web sites and mobile applications comply with WCAG 2.0 requirements inside a special time frame. The courtroom additionally directed the establishment of a complaint redressal mechanism for lawsuits associated with the non-accessibility of virtual assets. Collaboration between government groups, non-public organizations, and disability rights companies is critical for accomplishing comprehensive digital accessibility. Digital accessibility is blanketed in short but essential detail in the RPWD and is a fundamental element of the larger accessibility framework. The emphasis of this component is on statistics and communicate generation get entry to, which includes the following critical suggestions:

- making sure the reachable presentation of all content in all media modes (print, audio, and electronic).
- Permitting features like closed captioning, sign language interpretation, and audio description to make electronic media greater available.
- Requiring the adherence to usual design ideas in digital products and equipment intended for each day usage.

Governments apprehend the want for companies to become handy in many cases of accessibility rules, and that they offer specific implementation steering in comply with-up files. Such a **supplement is provided by the Rights of Persons with Disabilities Rules of 2017 in India.**

Arman Ali v. Union of India & Ors. (2019) : The Supreme Court of India stated the demanding situations faced by using humans with disabilities in gaining access to virtual sources.

The courtroom directed the government to take suitable steps to make certain that all government web sites and packages are made available to men and women with disabilities, in compliance with the WCAG 2.0 standards.

Despite felony mandates and efforts to promote virtual accessibility, the Indian virtual device nonetheless falls brief in ensuring equitable get right of entry to for humans with disabilities. A principal trouble is the sizeable non-compliance with accessibility requirements like the Web Content Accessibility Guidelines (WCAG) by means of severa authorities and private websites, mobile programs, and digital systems. This lack of adherence creates substantial limitations, preventing individuals with disabilities from successfully navigating and accessing virtual content material and services. Furthermore, the implementation of accessibility is hindered via the absence of strong enforcement and monitoring mechanisms . There is a lack of normal audits, penalties for non-compliance, and streamlined complaint redressal strategies, which undermines the capability to ensure that accessibility standards are upheld. Additionally, constrained attention and training amongst net builders, designers, and content material creators make a contribution to the advent of inaccessible digital sources. Inadequate allocation of assets, both financial and human, also impedes the progress of making virtual systems inclusive for people with disabilities. Overcoming these shortcomings calls for a concerted effort from all stakeholders, along with government companies, personal businesses, and incapacity rights businesses, to prioritize accessibility, offer essential training, and establish powerful duty measures.

Within the larger context of accessibility, the RPWD Act has an essential element on digital accessibility. This act highlights the accessibility of data and verbal exchange technology and gives hints which can be specifically useful to human beings with disabilities:

1. Making certain that each one content material—whether or not it's in print, audio, or electronic formats—is supplied in an available way so that people with disabilities can take part and recognize it more effortlessly.
2. Ensuring accessibility to virtual media with features like closed captioning, signal language interpretation, and audio description permits human beings with disabilities to have interaction completely with virtual platforms.
- Three. Requiring the production of electronic devices and gadget with frequent designs, so that humans with quite a number requirements and competencies can use items meant for each day utilization.

When it involves legal guidelines pertaining to accessibility, governments frequently require corporations to become on hand, with distinct implementation suggestions furnished later. India's Rights of Persons with Disabilities Rules from 2017 exemplifies this technique. Section 15, titled "Rules for Accessibility," similarly elaborates on the requirement for an "accessible format," thereby enhancing accessibility for people with disabilities inside the following ways:

- (i) By adhering to website requirements distinct within the recommendations for Indian Government websites, groups make sure that digital platforms are reachable to all users, which include people with disabilities.
- (ii) (ii) Requiring documents hosted on websites to be in either Electronic Publication (ePUB) or Optical Character Reader (OCR) based PDF formats facilitates accessibility by providing content in formats compatible with assistive technologies commonly used by individuals with disabilities.

By enforcing these rules, the legislation promotes inclusivity and equal access to information and digital resources for individuals with disabilities, thereby fostering greater participation and integration within society.

SUGGESTIONS AND CONCLUSION

In conclusion, despite the fact that India has promoted digital accessibility for humans with disabilities through laws and court docket decisions, there are still important limitations within the manner of guaranteeing equitable get entry to to virtual assets and offerings. It will take a multifaceted effort to shut this hole. First and principal, extra rigorous enforcement of presently in area accessibility standards, like WCAG, is needed. This may be done by way of frequent audits, sanctions for non-compliance, and efficient complaint redressal strategies. Furthermore, it is important to elevate expertise of accessibility excellent practices and provide web developers, designers, and content creators thorough training in this place. Working collectively, public and corporate establishments, and disability rights groups may additionally promote creativity, change knowledge, and create inclusive virtual solutions. Sustained implementation of accessibility applications and their help require adequate monetary and human resource allocation.