Employment and Retention of Differently-abled People in the Workplace Through Assistive Technologies

Neha Kumari[1], Usha Lenka[2]

[1]Department of Management Studies, Indian Institute of Technology Roorkee, India,
Indian Institute of Technology Roorkee, Uttarakhand India – 247667,
nkumari@bm.iitr.ac.in

[2]Department of Management Studies, Indian Institute of Technology Roorkee, India,
Indian Institute of Technology Roorkee, Uttarakhand India – 247667,
usha.lenka@ms.iitr.ac.in

***Abstract*:**

Aim of this study is to find assistive technologies that make differently-abled people accessible in the workplace. To find how assistive technologies can increase the recruitment and retention of differently-abled people in the workplace. This study follows the PRISMA framework for paper selection, and forty-five documents are obtained between 1984 and 2022. Assistive technologies are found according to the disability type authors have divided disability into broadly four, namely visual, hearing, physical, and cognitive disability. Study further explains how assistive technologies can help differently-abled people to gain and retain employment. In this study, the organizations that provide assistive technology to the differently-abled are not subjected to any expert or exploratory analytical techniques. People who are differently-abled often lack both hard and soft skills, and their lack of formal training makes it challenging for them to effectively use assistive devices. This research will assist organizations and policy-making authorities in developing programmes for the education and training of differently-abled people so that they can effectively use the technologies available in the market to meet their needs

***Keywords*:** Assistive Technologies, Differently-abled people, Employment, Accessibility

I. INTRODUCTION

Since people with disabilities (PWD) have a distinctive set of skills and viewpoints, they are not impaired or disabled; rather, they are differently abled. It's important to recognise that everyone matters and has talent. People with different abilities see, hear, and think in ways we cannot. Due to this, their skill is different – not better or worse, simply different [1]. They were referred to as divyangjan by the Department of Empowerment of Persons with Disabilities in India. Because of stigma and preconceived notions held by non-disabled people, differently abled persons (DAP), also known as divyangjan, are among the most diverse and distinctive resources, but they are also the most unused [2]. differently-abled people are the largest minority in the world, yet they also experience the most neglect, exclusion, and isolation [3]. People with different abilities do not have equal access to employment opportunities, and even if they do, they are not treated equally at work. The Universal Declaration of Human Rights of the United Nations (Article 23), states that "everyone has the right to work, to free choice of employment, to just and favourable conditions of work, to protection against unemployment, and equal pay for equal work," establishes the right to work for any vulnerable population [4].

International groups are also trying to ensure that people with different abilities receive equitable treatment at work. The Sustainable Development Goals (SDGs) of the United Nations (UN) also prioritize integrating people with disabilities and promoting equality at work [5]. Goal 8 of the SDGs (2015) calls for creating an inclusive, fruitful, and respectable way of life for people with disabilities. Goal 9 of the SDGs (2015) speaks of increasing access to assistive technology. The objectives of Goal 10 are to abolish discriminatory policies and practices, increase accessibility to assistive technology, and lessen inequalities for people with neurodiversity. Goal 11 of SDG 2015 focuses on creating inclusive and sustainable cities and communities for differently-abled people. Because they make the workplace more accessible, assistive technologies and information and communication technology (ICT) can boost the competitiveness of differently-abled people [6]. Information, communication, and technology (ICT) is an indirect or direct kind of assistive technology (AT); ICT and assistive technologies may enable differently-abled people to maintain competitive employment in the workplace and provide the company a

competitive edge. The inclusion of this demographic in intervention programmes today necessitates the use of all types of assistive technology, from the most basic to the most sophisticated [7]. Differently-abled people should be included in raising awareness and improving knowledge of ICT and assistive technologies availability at every stage of ICT and assistive devices development, which necessitates the development of national laws and regulations that guarantee that differently-abled people have access to ICT and appropriate assistive technology and dedicated relevant international organisations, authorities, and ministries dealing with ICT availability in every nation [8].

The Ministry of Social Justice and Empowerment's Department of Empowerment of Persons with Disabilities is implementing the Accessible India Campaign (Sugamya Bharat Abhiyan) as a national initiative to achieve universal accessibility for differently-abled people [9]. The ICT Ecosystem has the following goals. Target 5.2: Ensuring that at least 50% of all public documents released by the Central Government and the State Governments comply with accessibility standards. Target 5.1: Conduct an accessibility audit of 50% of all government (both Central and State Governments) websites and make them fully accessible websites. The biggest obstacle to successfully including differently-abled people is accessibility. Differently-abled people experience psychological problems when it comes to the productivity of people with disabilities at work [10]. Regarding the abilities of differently-abled people, there is a stigma and a negative attitude in the workplace. Diversely-abled persons are non-functional not because of a lack of talents and skills but rather because of accessibility issues that obstruct their performance and development. With the use of assistive technology (AT), differently-abled people are given access to the workforce and are assisted in finding and keeping jobs. The purpose of this study is to determine how accessible assistive technologies are in the workplace and how AT might improve the hiring and retention of individuals with diverse abilities. There is mention of the study's goals.

Objective 1. How assistive technologies make differently-abled people accessible in the workplace

Objective 2. how assistive technologies can increase the recruitment and retention of differently-abled people in the workplace.

II. Literature Review

Because of their high relevance, the authors used Google Scholar, Web of Science, and Scopus to perform the study. A source from the institution library is used, and Mendeley is used as a reference tool. "Sustainable employment", "Disability", "Assistive technology", "differently-abled people", "Accessibility", "Employment", and "Inclusion" are some of the keywords utilized. The investigation was conducted between 1984 and 2022.

A. Prisma Model

To further explain the procedure for selecting the critical articles that the authors used, a Prisma model was developed. In Fig. 1, the Prisma model flow is shown. The articles are selected using the Prisma model.

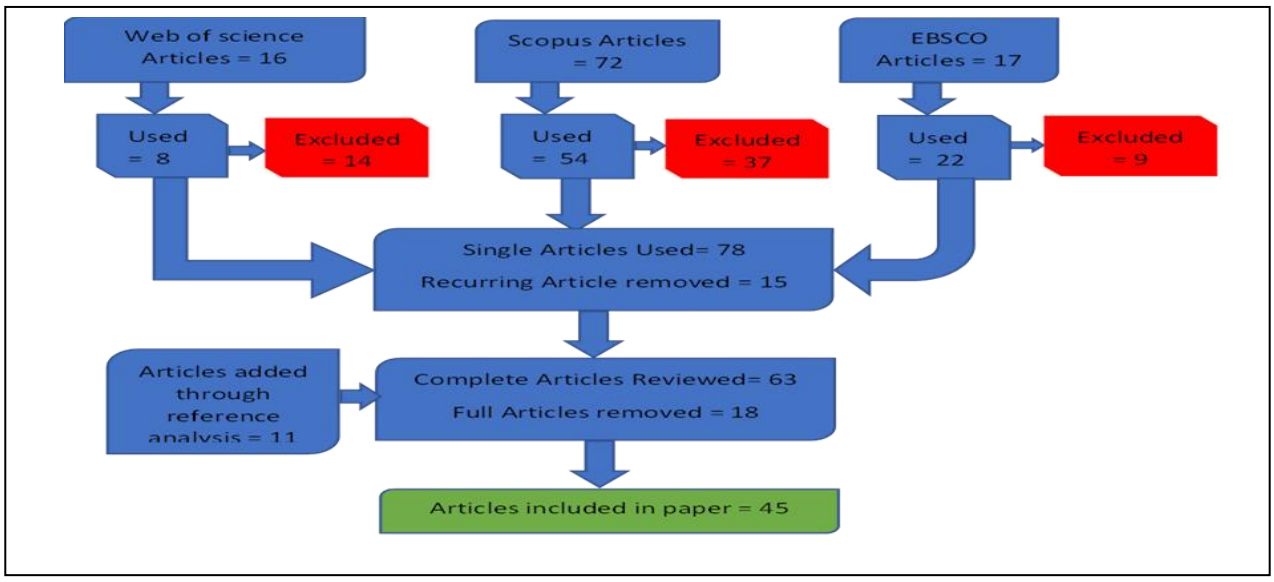

Fig. 1. Prisma Model

The selection of the critical articles was divided into three stages:

The first stage described the keyword search procedure used on Web of Science, EBSCO, and SCOPUS. The authors examined the abstracts in the second step to evaluate their significance and relevance to the research field. Recurring/duplicate articles were not included. More papers that were important to the study were found using the reference review approach. The third stage was a thorough review of the papers to weed out those that were not pertinent to the research.

For this investigation, a pool of 105 papers was first collected. Articles that are duplicated in other databases are deleted. In order to retain clarity and concentration, the writers identified 45 documents after evaluating each one individually. Only items published in English were chosen; they are both articles and review papers. For this study, the discipline of medicine is not taken into consideration.

B. Assistive Technologies (AT) and Differently-Abled People (DAP)

Minority groups feel alone and alienated from organizational social networks, according to an organisational demographic study [11]. One billion people, or one in six, are estimated to have a disability today. These individuals experience disproportionate marginalization, underemployment, unemployment, and poor health consequences [12]. According to studies, employment is particularly crucial for differently-abled people to assist them to overcome their economic and social isolation [13]. People with different abilities are valued as human resources because of their ability, creativity, and special talents [14]. According to empirical data, employees with impairments are more motivated, productive, and likely to stay on the job longer than those without disabilities. They also have fewer occupational accidents [15]. People with impairments are sometimes referred to as " differently-abled", and although they effectively make up for their limitations by developing their talents in other areas, they are nevertheless subject to employment discrimination.

Minority stakeholder groups still have considerable obstacles to entering the labour market and being included in corporations [16]. Now that barriers must be removed by individuals, groups, and governments, the social sphere is where accountability lies. The social model of disability contends that social constructs such as attitudes, laws, physical infrastructure, technological advancements, learning settings, employment prospects, and cultural representations serve as impediments [17]. Disabilities exist outside of the individual in this sense because these obstacles are incapacitating. Changes with assistive technology can result in increased accessibility, independent living, equitable benefits, legal protection, and enhanced quality of life by recognizing disability as a human right. Thus, this idea can more effectively address stigmatization issues, accommodate the requirements of people with disabilities, and recognize the existence of the person with the disability or set of impairments. According to the social-oppression perspective, disability is a social construct rather than a biological anomaly. There is some evidence to suggest that differently-abled people have less job stability, more job loss, and overall worse levels of job satisfaction [18]. With increasing societal inequalities in wealth and opportunities, labour discrimination persists [19].

According to research, differently-abled people may have highly successful jobs and can act as mentors and role models for others in the workplace [20]. Disability employees do better in less stressful workplaces where they may use assistive technologies to reduce stress and boost productivity [21]. Potential social hurdles, such as unfavourable attitudes, structural barriers, such as lack of accessibility, and a lack of coordination and policy coherence, have been identified as contributing to the inequities in the workplace experienced by differently-abled people. Assistive technology makes the workplace accessible for differently-abled people and lessens stigmas around them. Differently-abled people are stereotyped as inferior, extremely reliant, or lacking in ability [22]. They can compete with others with the help of assistive technologies, and they are proud of their work and grateful for the chance to work and earn a good living. Their high levels of productivity result from their commitment towards their jobs [23]. Companies that foster an inclusive culture by removing stigma and preconceptions from co-workers' minds are advantageous for all types of diverse groups, which ultimately benefits the organizations. Businesses that proactively employ differently-abled people have reaped the rewards in the form of higher earnings, favourable media coverage, and motivated, effective, loyal, and devoted workers. Because of differently-abled people, businesses obtain a competitive edge over their rivals and favourable media coverage that contributes to brand promotion.

Disability differs from incapacity. Only when a condition hinders someone from accomplishing what they need or desire to can it truly be considered a disability. For those with disabilities, information and communication technology (ICT) has enormous potential since it may remove or lessen a number of obstacles that, under other circumstances, could make it difficult or impossible for them to participate in daily activities [24]. Differently-abled people can more easily integrate into society socially and economically thanks to information and communication technology (ICTs) and assistive technologies in the workplace [25]. The elimination of obstacles that prevent differently-abled people from using ICTs and assistive technologies is of utmost significance when discussing accessibility concerns. Differently-abled people should be able to live independent lives, thus government organizations, non-governmental organizations, and the commercial sector should all join together to eliminate obstacles to accessing technologies and engage with the stakeholders [25]. Through governmental interventions, the required inclusion of accessibility standards in public procurement laws, the introduction of subsidies, and the bolstering of research and development, policymakers may overcome the market failure in assistive technologies. It is essential to have a thorough awareness of the difficulties and limitations that differently-abled people confront in order to fully benefit from assistive technologies.

III. ASSISTIVE TECHNOLOGIES AVAILABLE FOR DIFFERENTLY-ABLED PEOPLE

Assistive technology devices help in reducing physical barriers and other barriers and provide differently-abled people equal playing field [26]. In this study authors have divided into four categories.

A. Visual (Blindness, Low Vision, Colour Blindness)

Blind or low-vision people have little to no opportunities to support themselves, which prevents them from being employed and independent. A lot of the problems that blind or low vision people encounter directly related to the lack of accessibility for the visually impaired [27]. Following assistive technologies will make the workplace accessible for differently-abled people. "JAWS" ("Job access with speech") is the world's most popular screen reader, developed for computer users who have vision loss, preventing them from seeing the screen [28]. "Nonvisual Desktop Access (NVDA)" is a free "screen reader" which

enables blind and vision-impaired people to independently use the "Windows Operating system". "Narrator" is a basic screen reader included in "Windows 7" and higher. Apple devices use a program called "voiceover", which is included in "macOS" and "iOS". "Optical character recognition (OCR)" is a business solution for automating data extraction from printed or written text from a scanned document or image file and then converting the text into a machine-readable form. "Kurzweil 3000" and "Open book" are two popular "OCR" applications that can voice documents along as they scan [28]. "Adobe Acrobat Pro" also has an "OCR" engine for converting scanned images into digital text format. Many operating systems come with inbuilt magnifiers which help people with visual impairments.

B. Hearing (Deafness and Hard of Hearing)

In the workplace, deaf people frequently lack access to clear and effective communication, depriving them of crucial information, which hampers the effectiveness and efficiency of deaf and hard-of-hearing people in the workplace [29]. Following assistive technologies will make the workplace accessible for differently-abled people. Hearing aids are little gadgets that fit within the ear and amplifies sound for those who have trouble hearing, often coupled with lip reading. A cochlear implant is a medical device that restores hearing to someone who has severe hearing loss; the inner ear's cochlea is a snail-shaped structure. "Video Relay Services (VRS)" allow persons with hearing or speech disabilities who use "American Sign Language" to use video equipment to communicate with voice telephone users. A teleprinter, an electronic device for text communication over a telephone line, is a "telecommunications device for the deaf (TDD)" that is intended for use by those with hearing or speech issues [30]. Auditory devices or amplifiers boost the loudness and/or the pitch of the signal coming through the telephone receiver and non-auditory include text telephone.

C. Physical (Inability to Use Objects, Slower Response Time, Limited Fine Motor Control)

Specialized mouse and specialized keyboards with the layout of keys optimized to impaired person's hand of motion. Activating commands using an electronic information system with single keystrokes with a head pointer in succession instead of simultaneous keystrokes [31]. Individuals with ambulatory mobility impairments may use: "Walkers", "canes", "Crutches" or "braces", Manual or power "wheelchairs" and "Electric Scooters" allow people to interact with others who have very less or no mobility control. Eye tracking is a sensor technology that can detect a person's presence and follow what they are looking at in real-time. "Modern eye trackers" work through video cameras and specialized lighting systems. Special software that can help to auto-complete words or terms increases the accessibility of differently-abled people in the workplace.

D. Cognitive (Learning Disabilities, Distractibility, Difficulty Remembering on Focusing on a Large Amount of Information)

Learning, physical, and social abilities may be limited in people with cognitive impairments, which can have an impact on how well they perform at work [32]. Among these functional restrictions are short- or long-term memory loss, and difficulty in orienting oneself. Screen magnification software will help people with cognitive impairments to focus on one item at a time. Assistive technologies will allow people to interact with the others who have very less or no mobility control. Special software can also help in auto-complete words or terms. Modern eye-tracking devices work through "video cameras" and "specialized lighting systems" to help people with cognitive impairments. Screen magnification; focus on one item at a time to help the people who have memory issues with cognitive impairment. Assistive technologies that can make content easily editable or customizable, and software's that changes fonts and colours will help people with cognitive impairments to focus on objects. Auditory content or screen readers, software that provides interactive transcripts, provides workplace accessibility to them.

IV. ASSISTIVE TECHNOLOGIES TO INCREASE THE RECRUITMENT AND RETENTION OF DIFFERENTLY-ABLED PEOPLE IN THE WORKPLACE

Disability inclusion in the workplace is a hot subject in today's society because of the rise in the number of persons with disabilities and the necessity of financial independence for them to live respectably and honourably. Assistive technologies are crucial in enabling the inclusion of differently-abled people in the workforce because they provide them equitable access to the workplace and a level playing field [33]. Differently-abled people often find it difficult to commute to work; assistive technologies can help by making the workplace more accessible and productive for differently-abled people.

People with different capacities can utilize assistive technologies to showcase their skills without being concerned about being labelled as members of the out-group. For persons with disabilities, ICT and assistive technologies are seen as a facilitator in the workplace. Information and communication technologies (ICTs), in particular broadband Internet access, and assistive technologies, are promoted as a way to reduce disability-related disadvantages, which can increase their likelihood of employment, and retention in the workplace and promote their inclusion in the workplace [17]. ICT makes it easier for people with disabilities to use many different forms of communication, including speech, text, and gestures, to access information and connect with others. This helps to remove long-standing barriers to communication and interaction and supports the development of their sustainable employment. Utilizing assistive technology, such as mobile phones, laptops, and other personal digital assistants, helps differently-abled people overcome their challenges and increases their employability. ICT and assistive technologies should adhere to the universal design concept since this ensures that the technology is usable by a wide number of people and only benefits a large number of differently-abled people [35].

Few businesses have taken the initiative to actively hire differently-abled people, and those have seen benefits in the form of more motivated, productive, loyal, committed, and satisfied workers. If these workers are given access to ICT and assistive technologies at work, they will be equally competitive with their peers, which will increase their retention rates [23]. Employing individuals with diverse abilities and forcing them to compete with assistive technology is advantageous for both

businesses and employees with diverse abilities [36]. Differently-abled people are very loyal to the companies that hire them and accept them for who they are. When they receive technical assistance that makes them competitive enough to work alongside non-disabled people, it gives them a sense of insider status. It makes them feel like they belong to the company, which increases employment and retention [23]. Organizations must provide assistive technology based on the type of impairments in order to hire and keep differently-abled persons in the workforce.

V. UI/UX FOR HELPING PWD

The UI/UX for employment and retention of differently-abled people in the workplace through assistive technologies should prioritize accessibility and ease of use. This can include features such as high contrast text, keyboard navigation, and compatibility with screen readers. It is also important to consider the specific needs of the differently-abled individuals who will be using the technology, such as those with visual or auditory impairments. It is important to involve and test with people with disabilities during the design and development process to ensure that the final product is inclusive and user-friendly for all.

Additional steps that can be taken to improve the UI/UX for employment and retention of differently-abled people in the workplace through assistive technologies include: Providing alternative methods of input, such as voice recognition or braille keyboards, to accommodate individuals with motor impairments; Incorporating customizable settings, such as font size and color contrast adjustments, to cater to the needs of individuals with visual impairments; Ensuring that all images and graphics have appropriate alternative text descriptions for individuals who use screen readers; Incorporating closed captioning and sign language interpretation options for individuals with auditory impairments; Designing the interface to be intuitive and easy to navigate, with clear and consistent labelling of buttons and controls. It is also important to provide training and support to both differently-abled individuals and their colleagues to ensure that the assistive technology is being used effectively and efficiently. This can include providing tutorials and documentation on how to use the technology, as well as offering ongoing technical support. By prioritizing accessibility and ease of use in the UI/UX design, employers can create a more inclusive and supportive work environment for differently-abled individuals.

VI. DISCUSSION AND CONCLUSION

More than any other group, persons with different abilities have experienced discrimination and inequity in the workplace and in maintaining employment. Technology is gaining momentum in a wide range of nations, businesses, and professions, and it has the potential to increase the inclusion of differently-abled people in society and the workplace. The discrepancies are mostly caused by how quickly technology is developing in each nation. Technology will enable differently-abled people to access the workplace and participate completely, which will foster a sense of belonging for the company and make them an intrinsic part of it. In this study, the authors covered assistive technologies for differently-abled people in the workplace. These technologies may enhance the performance of differently-abled people in an organization, which in turn can boost the rate of employment and retention of them. According to the kind of impairment, this study provides insight into the assistive technology that businesses may use, which will improve the productivity and effectiveness of differently-abled people. The Kurzweil 3000, Open Book, JAWS, NVDA, Voiceover, and OCR are assistive technologies for people with visual impairments. Auditory devices, amplifiers, hearing aids, TDD, and VRS, are examples of assistive technology for people with hearing loss. Walkers, canes, crutches, power wheelchairs, manual wheelchairs, electric scooters, customized keyboards and mouse, and sensor technologies are examples of assistive devices for people with vision impairments. Screen readers, screen magnification, modern eye trackers that use video cameras, and customized lighting systems are examples of assistive technology for people with hearing impairments. Diversely-abled individuals are valuable resources, and their effective use necessitates technological aid that can boost their functionality and productivity. This will also increase their job satisfaction, which will increase their retention in the company. Organizations take resources from society; thus, it is their responsibility to act in the interests of society. As a result, it is their responsibility to implement any workplace adjustments necessary to ensure the full inclusion of differently-abled people. Accessibility, perception, and attitude are the main causes of competitive employment. Differently-abled persons can execute tasks at a completely accessible workplace at the same speed and effectiveness as other non-disabled people, which will also impact how their co-workers perceive them and how they are regarded as ingroup members. Differently-abled people will grow a feeling of community that will support them in maintaining their work, which is helpful for organizations as well.

VII. LIMITATIONS, IMPLICATIONS AND FUTURE RESEARCH DIRECTIONS

In this study, the organizations that provide assistive technology to the differently-abled are not subjected to any expert or exploratory analytical techniques. People who are differently-abled often lack both hard and soft skills, and their lack of formal training makes it challenging for them to effectively use assistive devices. This research will assist organizations and policy-making authorities in developing programmes for the education and training of differently-abled people so that they may effectively use the technologies that are available in the market to meet their needs. Through education and training programmes, differently-abled people will have access to the workforce with the aid of technology, increasing efficiency and, ultimately, leading to employment and retention of differently-abled people. This research will assist organizations in making the necessary policy adjustments to bring about the desired change in organizational climate and culture. Government should establish regulations for subsidizing the cost of technology. More study is needed on the macro- and micro-level requirements for policies, strategies, and plans of action to integrate individuals with diverse abilities in the workplace and society. More research is required to understand how government regulations impact the use of technology in the workplace. This is only a

conceptual framework; further research will be needed in further studies. Future study is needed to determine how assistive technologies impact job design, task relevance, and work independence of differently-abled people.

REFERENCES

[1] Wood, J. V. Theory and research concerning social comparisons of personal attributes • . Psychological bulletin, vol. 106(2), pp. 231, 1989.

[2] Groce, N. E. Adolescents and youth with disability: Issues and challenges • . Asia Pacific Disability Rehabilitation Journal, vol. 15(2), pp. 13-32, 2004

[3] Barry, B. Social Exclusion, Social Isolation, and. Understanding social exclusion, pp. 13, 2002.

[4] Assembly, U. G. Universal declaration of human rights • . UN General Assembly, vol. 302(2), pp. 14-25, 1948.

[5] Bebbington, J., & Unerman, J. Achieving the United Nations Sustainable Development Goals: an enabling role for accounting research • . Accounting, Auditing & Accountability Journal, 2018.

[6] Zhang, D., & Nunamaker, J. F. (2003). Powering e-learning in the new millennium: an overview of e-learning and enabling technology. Information systems frontiers, vol. 5(2), pp. 207-218, 2003

[7] Vornholt, K., Villotti, P., Muschalla, B., Bauer, J., Colella, A., Zijlstra, F. & CorbiÃ¨re, M. Disability and employment"overview and highlights • . European journal of work and organizational psychology, vol. 27(1), pp. 40-55, 2018.

[8] World Health Organization, World health statistics 2015. World Health Organization, 2015.

[9] Haque, M. N. A STUDY OF COMMUNICATION TOOLS ADOPTED FOR VARIOUS CSR INITIATIVES FOR VIKLANGS IN INDIA • .

[10] Baldwin, M., & Johnson, W. G. Labor market discrimination against men with disabilities • . Journal of Human Resources, pp. 1-19, 1994.

[11] Gray, H. M., Gray, K., & Wegner, D. M. • Dimensions of mind perception. Science • , vol. 315(5812), pp. 619-619, 2007.

[12] International Labour Office Global employment trends for youth 2012 • . ILO Publications, 2012.

[13] Williams, Belinda Rachael. "Disability in the Australian workplace: corporate governance or CSR issue?." Equality, Diversity and Inclusion: An International Journal, 2017.

[14] Hernandez, B., McDonald, K., Divilbiss, M., Horin, E., Velcoff, J., & Donoso, O. Reflections from employers on the disabled workforce: Focus groups with healthcare, hospitality and retail administrators • . Employee Responsibilities and Rights Journal, vol. 20(3), pp. 157-164, 2008.

[15] Houtenville, A., & Kalargyrou, V. People with disabilities: Employers™ perspectives on recruitment practices, strategies, and challenges in leisure and hospitality • . Cornell Hospitality Quarterly, vol. 53(1), pp. 40-52, 2012.

[16] Froy, F., & Pyne, L. Ensuring labour market success for ethnic minority and immigrant youth • , 2011.

[17] Lee, S. S. Disability Studies and the Language of Physical Education Curriculum. Disability Studies Quarterly, vol. 31(2), 2011.

[18] Baldwin, M. L., & Schumacher, E. J. A note on job mobility among workers with disabilities • . Industrial Relations: A Journal of Economy and Society, vol. 41(3), pp. 430-441, 2002.

[19] International Labour Office. Director-General. Equality at Work: Tackling the Challenges: Global Report Under the Follow-up to the ILO Declaration on Fundamental Principles and Rights at Work • , International Labour Organization, vol. 1, 2007.

[20] Noonan, B. M., Gallor, S. M., Hensler-McGinnis, N. F., Fassinger, R. E., Wang, S., & Goodman, J. Challenge and success: A Qualitative study of the career development of highly achieving women with physical and sensory disabilities • . Journal of counseling psychology, vol. 51(1), pp. 68, 2004.

[21] Schur, L., Kruse, D., & Blanck, P. Corporate culture and the employment of persons with disabilities • . Behavioral sciences & the law, vol. 23(1), pp. 3-20, 2005.

[22] Thomas, C. Female forms: Experiencing and understanding disability • . McGraw-Hill Education (UK), 1999.

[23] Kalargyrou, V. Gaining a competitive advantage with disability inclusion initiatives. Journal of Human Resources in Hospitality & Tourism, vol- 13(2), pp. 120-145, 2014

[24] D'Aubin, April. "Working for barrier removal in the ICT area: creating a more accessible and inclusive Canada: a position statement by the Council of Canadians with disabilities." The Information Society 23, no. 3,pp. 193-201, 2007.

[25] Renblad, K. How do people with intellectual disabilities think about empowerment and information and communication technology (ICT)?. International Journal of Rehabilitation Research, vol. 26(3), pp. 175-182, 2003.

[26] Ahmad, F. K. Use of assistive technology in inclusive education: making room for diverse learning needs • . Transcience, vol. 6(2), pp. 62-77, 2015.

[27] O'Day, B. L., Killeen, M., & Iezzoni, L. I. Improving health care experiences of persons who are blind or have low vision: suggestions from focus groups • . American Journal of Medical Quality, vol. 19(5), pp. 193-200, 2004

[28] Lazar, J., Allen, A., Kleinman, J., & Malarkey, C. What frustrates screen reader users on the web: A study of 100 blind users. International Journal of human-computer interaction, vol. 22(3), pp. 247-269, 2007

[29] Kuenburg, A., Fellinger, P., Fellinger, J. Health care access among deaf people • . The J. of Deaf Studies and Deaf Education, vol. 21(1), pp. 1-10, 2016

[30] Caselli, N. K., Hall, W. C., & Henner, J. American Sign Language interpreters in public schools: An illusion of inclusion that perpetuates language deprivation • . Maternal and Child Health Journal, vol. 24(11), pp. 1323-1329, 2020.

[31] Raskin, J. The humane interface: new directions for designing interactive systems • . Addison-Wesley Professional, 2000.

[32] Beauchemin, James, Tiffany L. Hutchins, and Fiona Patterson. "Mindfulness meditation may lessen anxiety, promote social skills, and improve academic performance among adolescents with learning disabilities." Complementary health practice review vol. 13(1), pp. 34-45, 2008.

[33] Linden, M., & Milchus, K. Teleworkers with disabilities: Characteristics and accommodation use • . Work, vol. 47(4), pp. 473-483, 2014.

[34] Jayakar, Krishna, Chun Liu, Gary Madden, and Eun-A. Park. "Promoting broadband and ICT access for disabled persons: comparative analysis of initiatives in Asia-Pacific region." The Information Society 31, no. 4 ,pp. 299-314, 2015.

[35] Ratliffe, K. T., Rao, K., Skouge, J. R., & Peter, J. Navigating the currents of change: technology, inclusion, and access for people with disabilities in the Pacific • . Information Technology for Development, vol. 18(3), pp. 209-225, 2012.

[36] Kryscynski, D., Coff, R., & Campbell, B. Charting a path between firm • specific incentives and human capital • based competitive advantage • . Strategic Management Journal, vol. 42(2), pp. 386-412, 2021.