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TECHNOLOGY ENHANCED MENTORSHIP FOR PERSONS WITH DISABILITIES

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ABSTRACT

Mentorship acts as a significant stimulator for the personal and professional development of an individual. In educational and professional life of an individual, various desires of a person can be fulfilled through right kind of mentorship process. A lot of potential of a person usually remains hidden in traditional situations but mentorship provides a platform for individuals including PwDs, to utilise their potential up to optimum level. In comparison to normal persons, PwDs face certain unique barriers associated with them e.g. educational barriers, employment issues and social exclusion. For removing these barriers mentorship is of great importance as it has been observed that through mentorship sessions we can provide performing platforms that are best suited to them. There are certain limitations of traditional mentorship models in the context of PwDs with respect to infrastructure, geographical and accessibility related issues. In such situations technology plays a crucial role in the form of varied mentorship sessions for the persons belonging to PwDs category; as through the application of technology the gaps of traditional mentorship can be fulfilled by providing accessible, inclusive and equitable opportunities. The present paper being conceptual in nature is an attempt to explore the role of technology in providing the best suited mentorship in the context of PwDs. The paper explores the role of digital platforms, assistive technologies and tools like AI, Virtual reality and Augmented Reality in the creation of impactful mentorship experiences for the PwDs. The paper concludes with the benefits like flexibility, personalised learning experiences and increased connectivity, can be ensured with the help of technology-enhanced mentorship.

Keywords: Mentorship, Assistive Technologies, Persons with Disabilities (PwDs), Accessibility and Inclusivity.

1. INTRODUCTION

Mentorship in educational context plays a crucial role by supporting the individuals in their personal and professional life in the form of various kind of support e.g. guidance, encouragement, and opportunities for skill enhancement. Access to different necessary networks and opportunities is denied to PwDs due to various geographical, infrastructural and cultural limitations. There should be a provision of mentorship programs designed specifically for PwDs, having specific support and providing an inclusive ecosystem that give preference to their specific needs and aspirations. **Zan & Cecchi (2020)** also reported, "Mentorship can bridge these gaps by fostering empowerment, skill development, and self-confidence in individuals, thus enabling them to overcome adversities and achieve their potential." Mentors have the ability to serve as role models for mentees as they not only provide practical guidance but are also capable of inspiring confidence and resilience in PwDs. However the persons acting as mentors having personal or professional experience of working with PwDs are successful in overcoming disability-related challenges. **Lindsay et al. (2019)** mentioned, "Beyond professional development, mentorship enhances psychosocial well-being by reducing feelings of isolation and stigma and fostering a sense of belonging within a supportive network".

2. NEED OF MENTORSHIP FOR PWDS

All around the world mentorship is being used as an innovative method to nurture the talent of individuals so that they could be supported in their educational and professional life but in case of mentees belonging to PwDs category, its' role becomes even more crucial. As mentioned by **Shogren et al. (2015),** "It focuses not only on skill development but also on building confidence, self-advocacy and resilience. One of the primary goals of mentorship for PwDs is to address the accessibility challenges they face in conventional education and workplace settings." The mainstream mentorship opportunities are usually skipped by so many PwDs just because of some physical limitations and the problems that usually come into effect due to neglected attitude of society and organizations. This idea was supported by **Lindsay et al. (2019)**, who observed that a mentor can overcome the challenges through timely advice, suitable motivation and linkage to mentorship networks. For example, a mentee suffering from visual problems can be assisted by through assistive technologies and further if he is suffering from adjustment problems at workplace then he can be assisted by mentors in removing these kind of problems. Social inclusion is also a very critical issue that is associated with PwDs and this problem of social exclusion also needs proper attention from mentors.

In a report presented by **WHO (2021),** it is mentioned that mentorship programs should be specifically designed for addressing the specific needs of mentees e.g. vocational guidance and training, skills of entrepreneurship and need of leadership. So many mentees face problems related to suitable employment due to limited career opportunities for them specifically in the case of PwDs. In such cases mentorship can be proved very beneficial by providing vital solutions for these kind of problems. As in todays' world technology is advancing at a very fast pace, with this technological progress the digital tools available now a days enhances the scope of mentorship for PwDs by removing the problems of accessibility and inclusivity. Isolation and stigma is usually faced by many individuals with disabilities leading to impact their mental health and career aspirations in a negative manner. A mentor serves as a role model for such mentees by offering emotional support and timely help for the mentees. The relationship between mentors and mentees leads to the empowerment of mentees leading to overcome the challenges related to societal stereotypes their rights. There is another critical aspect of mentorship for PwDs i.e. skill development and career guidance. Now a days, the job markets are dynamically changing by stressing upon digital skills and multidisciplinary knowledge. In this case also, mentors can guide mentees in acquiring essential digital skills for the enhancement of their employability skills.

Persons with Disabilities and their Mentorship Challenges: Persons with Disabilities (PwDs) are characterised by certain physical limitations which makes them to suffer with some challenges in utilising mentorship opportunities. These barriers might include systemic, societal, and infrastructural barriers. Due to physical limitations, PwDs face difficulty to participate in face-to-face mentorship sessions due to limited mobility. **Lindsay et al. (2019)** observed, "PwDs in rural or underserved regions may face additional challenges in finding qualified mentors within their proximity leading to limited access to guidance and professional networks." There are certain other barriers including; others' attitude towards disability and fear of isolation in the society. Social attitude towards PwDs also play a significant role in accessing the mentorship opportunities in traditional set up. Negative perceptions towards disability and PwDs can result into exclusionary practices from the side of mentors and mentorship organizations.

Technological illiteracy and digital divide is also one of the most significant factors that can create barriers for PwDs. There are so many PwDs which are don't possess necessary digital skills due to which they are not able to use online platforms. Since PwDs also comes from different socio-economic backgrounds therefore they are affected by technological barriers in varied manner. According to **Zan & Cecchi, (2020)**, "Many mentors lack the knowledge or skills to address the unique challenges faced by mentees with disabilities." The quality of mentorship is affected by this knowledge gap which discourage organizations from developing inclusive mentorship programs that may lead to the exclusion of PwDs**.** The systemic issues such as insufficient policies and support structures further limits the chances of accessibility of mentorship for PwDs.

3. MENTORSHIP TECHNOLOGIES FOR PWDS

The world of technology is changing day by day resulting into so many options for different mentorship needs of the PwDs. With the help of these technological advancements the characteristics like inclusivity and equity can be ensured in the process of mentorship specifically for PwDs. Further these technologies are characterised by some unique features like easy in use, flexible according to situations and ability of customization according to mentee's needs. Therefore with

the help of these technologies, the process of mentorship can be made more accessible and impactful. There are so many Assistive technologies that are available now a days; such as screen readers for visually impaired users, voice recognition software for individuals with physical problems, and sign language solutions for hearing impairments; these technologies can be used for making mentorship programs effective and fruitful. In addition to this, during mentorship process the PwDs usually face some communication barriers. These barriers can be minimised using live transcription services of Zoom and Microsoft team platforms. There are some other features like adaptability and personalization that can be ensured with the help of Assistive technologies. **Siu and Crespo (2022)** highlights that digital platforms have the ability of configuration according to the individual needs of users such as; customization of font size, contrast adjustment and interface layouts. In addition to this now a days mentorship platforms can utilize Artificial Intelligence (AI) according to the needs, interests and skills of mentors and mentees.

There are Virtual Reality (VR) and Augmented Reality (AR) tools which have an advantage in the form of simulating real-world scenarios particularly beneficial for skill-based learning for PwDs. With the help of such immersive technologies we can allow users to practice in safe and controlled environments leading to bridge up the gap between acquired knowledge of theoretical and practical nature. Interoperability and cross-platform compatibility also can be ensured by these technologies as it allows users to switch between various devices e.g. laptops, smartphones and tablets. Through this flexibility, mentorship programs can be made accessible for PwDs as in this way they are able to use the devices of their choice, resulting into the reduction in dependency on specific hardware or software configurations**.** Through these features of Accessible Technologies it can be ensured that the accessibility standards are not only met by mentorship platforms but also able to safeguard the rights and dignity of PwDs users. The issue of engagement and inclusivity can be solved with the technologies that are able to ensure interactivity and multimedia solutions. According to **Tanis et al. (2021),** "Features such as interactive whiteboards, video conferencing and real-time messaging ensure that mentees and mentors are able to communicate effectively, irrespective of geographical limitations."

4. FUTURE DIRECTIONS FOR EFFECTIVE TECHNOLOGY-ENHANCED MENTORSHIP

As discussed above, at present advancement of technology offers transformative potential for mentorship that can be utilised in enhancing accessibility, inclusivity and personalization in terms of mentorship for PwDs. The future directions for effective technology-enhanced mentorship may include; use of innovative technologies, universal accessibility, effective networking system and effective evaluation frameworks. Through these initiatives such mentorship systems systems can be developed by which are sustainable in nature and capable of removing the current limitations of existing mentorship systems for the empowerment of diverse populations and persons with disabilities (PwDs).

1. **USE OF INTEGRATING ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN MENTORSHIP:** The existing mentorship system can be revolutionized Artificial through intelligence (AI) and machine learning (ML) by providing facilities like data-driven personalization techniques and adaptive learning experiences. According to **Siu & Crespo (2022),** "AI-powered platforms can streamline the mentor-mentee matching process by analysing user preferences, skills, and goals, ensuring compatibility and relevance. These systems can also provide real-time support through virtual assistants or Chatbots, addressing mentees' immediate needs and facilitating continuous engagement." With the help of AI tailoring mentorship content can be developed in order to accommodate specific disabilities associated with PwDs e.g. generation of audio descriptions for and sign language translations for visually impaired. Machine learning algorithms can be used for the enhancement of mentorship through the identification of patterns in mentee progress and suggestion of individualized strategies for their improvement. Further the Artificial Intelligence and Machine Learning has the ability to handle large datasets, essential for scaling mentorship programs in order to cater the needs of diverse and geographically dispersed populations.
2. **USE OF IMMERSIVE TECHNOLOGIES FOR IMMERSIVE MENTORSHIP EXPERIENCES:** The integration of augmented reality (AR) and virtual reality (VR) holds promise for creating immersive mentorship experiences. There are so many real-world scenarios that can be stimulated through AR and VR by providing hands on practice to mentees in safe and controlled environment. Here we can take the example of individuals preparing for job interviews, here we can use VR simulations to build up confidence and refinement of mentee's skills. As mentioned by **Tanis et al. (2021),** "AR can enhance accessibility by overlaying interactive digital content on physical environments, offering real-time guidance and feedback." Immersive technologies are capable of removing the

barriers to traditional mentorship with respect to PwDs, as they can create manual environments best suited to their unique needs. Furthermore workplace settings can be stimulated through VR to help individuals, having mobility challenges for removing their potential obstacles leading to readiness and self-assurance. Through these technologies mentorship can be designed in a way which is more engaging and interactive, as these technologies have the potential in the promotion of deeper learning and stronger connections between mentors and mentees.

3. **STRENGTHENING DIGITAL LITERACY AND ESTABLISHING FEEDBACK MECHANISMS:** Now a days, digital literacy has become essential for both mentors and mentees from any educational group in order to maximize the benefits of technology-enhanced mentorship. As mentioned by McAllister et al. (2019), "The future mentorship programs should prioritize training initiatives that equip participants with the skills to navigate digital tools effectively. For PwDs, specialized training in using assistive technologies can empower them to overcome barriers and actively participate in mentorship opportunities." Through the enhancement of the digital proficiency, an environment of confidence and competence can be created in mentorship programs leading to ensure productive and meaningful interactions among various participants. Through advanced analytics, valuable insights can be provided resulting into user engagement, progress and satisfaction. **In this way program** administrators may be empowered for identifying strengths and areas for improvement of mentees during mentorship programs. As reported by **Zan & Cecchi (2020),** "Regular feedback from mentors and mentees can inform iterative enhancements, ensuring platforms remain relevant and effective." By tracking the outcomes e.g. mentees' career advancements, skill development and personal growth mentorship programs can prove their worth and ensure required support from stakeholders.

5. CONCLUSION

The persons with disabilities can suitably be empowered through the powerful mechanism of mentorship and in this way the goal of inclusion, equity and empowerment of PwDs can be achieved successfully. However there are certain unique challenges associated with PwDs. These challenges can be overcome with the help of using technological advancements in the process of providing mentorship. Despite the so many benefits of technology assisted mentorship there are certain challenges e.g. digital divide, technological literacy and privacy concerns of PwDs that has to be taken care proper attention by the organisers. For addressing various issues of PwDs, a multifaceted approach is required that would include; improving infrastructure, inclusive attitudes, and effective use of technology. Various stakeholders including policymakers, educators, and educational organizations should collectively make efforts for preparing such mentorship ecosystems that have inclusivity and equity on priority. Although technology-enhanced mentorship has the potential to transform mentorship practices but in addition to this the barriers e.g. digital divide, accessibility issues, and privacy concerns should be addressed properly in order to achieve desirable outcomes from mentorship programs. There is a scope for mentorship frameworks by leveraging innovative technologies and inclusive design principles for creating meaningful mentorship experiences that would be successful in empowering PwDs, to overcome their challenges and achieve their required goals of mentorship programs.

CONFLICT OF INTERESTS

None.

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