Chapter 1
Digital Technology Improving the Quality of Life for People With Disabilities

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ABSTRACT

According to the WHO, 16% of the global population lives with a disability, with 200 million facing significant functional challenges. Rising chronic illnesses like diabetes, cancer, and mental disorders make disability a growing global health and human rights concern. The UN's SDGs for inclusive growth face setbacks as many individuals encounter physical, mental, social, and economic barriers. The UN Disability Inclusion Strategy highlights the indivisibility of human rights. This study examines smart technologies and digital strategies to improve accessibility and quality of life for persons with disabilities. Conducted in Dehradun District, it assesses

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53 individuals with disabilities to evaluate how digital technology enhances their lives. Data analysis is carried out using SPSS. The study aims to identify obstacles, assess current solutions, and propose innovative, user-centric smart technologies to bridge the disability divide, ensuring better social and economic inclusion.

INTRODUCTION

According to World Health Organization (WHO) 16% of the world's population (1 in 6 persons) live with some kind of disability, out of them approximately 200 million face considerable difficulties in functioning (WHO, 2022). With the rising global average ageing population, increasing chronic health related issues like diabetes, cancer, and mental health disorders, and the higher risk of disability in older people, in the years to come disability is going to become a greater concern in world health arena and a significant issue of human rights (Lang et al., 2011; Dev et al., 2025). United Nations' SDGs aiming to achieve inclusive growth faces setback as significant population faces barriers to inclusion due to disabilities (physical, mental, social and economic).

Digital inclusion can provide persons with disabilities access to education, financial services and skill development and further enabling them to get employment. Similarly, smart technologies can enable them to live an independent life. An inclusive digital economy for people with disabilities – creation of new jobs, inclusive workplaces, and production of smart devices for ease-of-living- is the way ahead to meet potential economic growth, utilizing its labor-force to the fullest. Since no single organization can resolve these issues on its own, cooperation and a public-private strategy are essential to achieving digital fairness (Yadav et al., 2021).

The UN Disability Inclusion Strategy reaffirms that complete realization of human rights is indivisible and integral part of fundamental of being. Smart technologies and associated digital strategies aimed at improving the quality of life for persons with disabilities through access to facilities and services using smart technologies (Bricout et al., 2021). The aim of the study is to improve accessibility of people with disabilities in social and economic spheres through user-centric and customized smart technology solutions (Vojinovic et al., 2024).

The United Nation presented its first ever report on Sustainable Development Goals and People with Disabilities in 2018 titled "Realization of Sustainable Development Goals by, for and with persons with disabilities" (Eberle et al., 2022). The report viewed the persons with disabilities as both agents and beneficiaries of development and thereby called for concrete actions to be adopted for inclusion of the worlds 15% population in developmental process as they remain at a significant disadvantage regarding most of the sustainable development goals (Leal Filho et al.,

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Alexandros Pino (2014). *Disability Informatics and Web Accessibility for Motor Limitations (pp. 105-152).*

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