

Empowering Accessibility and Inclusion

Assistive technology seeks to level the playing field and provide equitable access to opportunities for all individuals

In the ever-evolving landscape of technology, one area continues to make remarkable strides - assistive technology. This genre of technology, designed to aid individuals with disabilities in their daily lives, has seen significant development over recent years,

heralding a new era of empowerment and inclusivity.

"With a projected rise to 350 million by 2047, India is home to over 26.8 million individuals with disabilities. Assistive technology (AT) empowers people with disabilities, elders, and those with chronic conditions by facilitating access to essential services and enhancing functioning in areas like cognition, communication, mobility, and vision," says, Rahul Gupta, managing partner and founder,



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ValuAble.

From prosthetic limbs to communication devices, assistive technology has transcended its conventional boundaries, becoming more sophisticated and personalised than ever before.

"India has been making strides in the development and adoption of assistive technology solutions to address the diverse needs of individuals with

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disabilities. Screen readers, braille devices, mobility aids, augmentative and alternative communication devices have been innovated by various assistive tech startups in the past few years," says, Mallikarjuna lytha,

founder and CEO, Inclusive Divyangjan Entrepreneur Association (IDEA).

One of the most notable advancements in assistive technology is the integration of artificial intelligence (AI) and machine learning algorithms. These technologies have enabled devices to adapt to users' needs in real-time, offering personalised assistance and enhancing usability.

Moreover, the convergence of assistive technology with wearable devices and Internet of Things (IoT) technology has

opened new avenues for independence and autonomy. Smart glasses equipped with augmented reality (AR) capabilities can assist individuals with visual impairments in navigating their surroundings by providing real-time audio feedback about nearby objects and obstacles. Similarly, IoT-enabled home automation systems can be customised to accommodate the specific needs of users with mobility impairments, allowing them to control various appliances and devices with simple voice commands or gestures.

"In the field of education, assistive tools like screen

readers and voice recognition software bridge the gap for students with visual or learning impairments. These tools allow them to access learning resources and participate alongside their peers," shares, Bharath Altha, vice president, marketing, Elnfochips.

However, despite these remarkable advancements, challenges remain in ensuring equitable access to assistive technology for all individuals who need it. Issues such as cost barriers, lack of awareness, and inadequate support infrastructure continue to hinder the widespread adoption of these

technologies.

The WHO and UNICEF Global Report on assistive technology (2022) demonstrates considerable inequity in access to assistive technology. As few as 3 per cent of people in some low-income countries were reported to have access to the assistive products they need, in comparison to 90 per cent in some high-income countries.

"In India, where social stigma often hinders accessibility, the government has taken strides to address these challenges. Initiatives like the Rights of Persons with Disabilities Act and various policies

promote the development and deployment of assistive technology solutions. However, barriers persist, especially in rural areas, where affordability and awareness remain significant challenges," says, Pratik Vaidya, MD & CVO, Karma Global Consulting Solutions Pvt Ltd.

