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Technology for Differently Abled English Language Learners in India

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Abstract

The use of English in its learning role holds value in the Indian educational system, being one of the key areas of higher education, employment and enhanced social mobility. However, learning English language, in itself, is a great struggle which Indian differently abled learners' travel. These may be caused by disability which can be physical, sensory or cognitive and may affect an individual's reading, writing, speech and language, and access to standard classroom resources. As a result, in most cases these students are disadvantaged in the classroom where their ability to speak English has a direct correlation with academic achievement and future opportunity. In this regard, assistive technology is a big ally in making EL more accessible and inclusive.

This article discusses the possible use of technology in India for assisting the differently abled learners. It focuses on the educational value of assistive technologies including screen readers, speech-to-text, etc., text-to-speech, captioning technologies, mobile learning technologies and other assistive technologies that adapt. The technologies help learners get around the barriers they face in using print, verbal communication, writing, and in attending class, and encourage them to be more independent and interested. The article also considers the Indian education scenario where equal learning opportunities have been stressed by the inclusive education policy, though the application of assistive technology has not been evenly implemented yet as a result of low awareness, ineffective training of the teaching staff, inappropriate infrastructure, and socio-economic differences.

Technology must not be considered as an additional tool, but as an essential element of fair teaching of the English language to learners with disabilities. Assistive technologies can empower learners, motivate them to participate, feel confident and develop language skills when properly incorporated in pedagogy. Concurrently, the paper highlights that technological inclusion cannot be adequately achieved by devices alone, but rather by institutional support, policies, teacher readiness and learning environments. The article thus states that support for assistive technology needs to be reinforced to ensure that the differently abled learners in India can partake significantly in English language teaching and be exposed to the wider academic and social opportunities that come with English language teaching.

Keywords: *assistive technologies; disabilities; learning environments; academic and social potential; English language learning.*

Introduction

English language learning (ELL) plays a significant role in the Indian education system as the means to higher education, employment and international communication. It is considered that English proficiency is one of the most important factors associated with academic success and socio-economic mobility (Ministry of Human Resource Development, 2020). Nevertheless, learners with physical, sensory and cognitive disabilities have serious

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difficulties when it comes to learning and using English. The challenges also involve difficulties in reading, writing, speaking, and use of conventional resources which may hinder their academic growth and opportunities.

Assistive technologies have emerged as useful means of dealing with these barriers. Screen readers, speech-to-text software, and alternative adaptive learning apps are the technologies that allow learners with disabilities to access the materials and be involved in the activities of the English language (Barbhuiya, n.d.). Research has revealed that the application of these technologies in language classes may contribute positively to the engagement of students with disabilities (McNicholl et al., 2023). This is a concern especially in India, where linguistic diversity and socio-economic differences make education a challenge to access. Although the policies on inclusive education focus on inclusive education, awareness and use of assistive technologies remain limited, which underscores the necessity of specific interventions to allow all students access to English language learning equally (Jena & Parhi, 2022).

Challenges Faced by Differently Abled English Language Learners in India

The challenges that confront students with disabilities in India in regard to structural and educational barriers are enormous and act as impediments in their learning of the English language. Although the Right of Children to Free and Compulsory Education Act (2009) and the National Education Policy 2020 support inclusion in education, the provision continues to be inadequate, which restricts access to quality education among the learners with various disabilities (Suja & Elamaran, 2024). There is a strong disparity in education as a 2020 overview reported that only about 62.9% of people with disabilities aged 3–35 in India had ever attended regular schools and about 45 percent of people with disabilities were illiterate (Sarkar, 2020).

Physically challenged learners can easily experience some of the most immediate barriers in English classes due to the limited access to instruction itself. Learners with visual disabilities might also not be offered access to braille materials, large fonts as well as other adaptive learning resources, limiting their access to written content of English. Similarly, hearing-impaired learners can have difficulty in following classroom instruction where the teaching relies primarily on oral presentation without captioning or sign language or visually related teaching aids. These obstacles go hand in hand with the unavailability of learning conditions and convenient learning systems in classrooms (Suja & Elamaran, 2024).

The challenges that the students with cognitive disabilities face are different and also equally serious. Students with special needs like dyslexia or attention deficit hyperactivity disorder need special instructional strategies, systematic support and differentiated instruction. Nevertheless, there are numerous institutions that do not have appropriate resources to address such concerns. A lack of trained teachers, individualised strategies, and proper classroom accommodations may make it hard for such learners to comprehend lessons, process language and gain confidence in using English. The effect of this is that the school system may increase their difficulties instead of mitigating them (Suja & Elamaran, 2024).

The situation is complicated by the fact that technological constraints are also to be considered. Despite the significant potential of the assistive technologies in serving the differently abled learners, there is still unequal access to the assistive aids especially in rural areas of the country. Students and teachers in a great number of situations do not have access to digital devices, a good internet connection, or specialized assistive software. Even when such tools are provided, their successful utilization is always hindered by a lack of proper infrastructure and teacher readiness. The text of assistive technology developed by NCERT identifies tools such as text-to-speech, speech-to-text, screen readers, optical character recognition, and screen magnifiers as valuable aids to inclusive learning (Barbhuiya, n.d.).

The linguistic variety of India is another source of difficulty. Since most of the learners have to negotiate between the English language and their first or native language, students with disabilities are usually burdened with the added responsibility of having to cope with the challenges of bilingualism or multilingualism on top of the disability-based challenges. This is even more complicated when the curriculum is always strict and permits no flexibility between languages or simplified forms of instructions. Due to the complexity of English and a lack of pedagogical aid, these conditions may cause learning to be particularly challenging to differently abled learners, whose lack of participation and confidence in the classroom combine to lower language fluency and confidence levels (Suja & Elamaran, 2024). The elements of access, specialised pedagogy, technological assistance, and language flexibility have to collaborate in order to make inclusive English education meaningful. The learners with disabilities

can only stay physically in classrooms without being fully involved in the learning process unless they have stronger policies, improved infrastructure, and sustained teacher preparation (Barbhuiya, n.d.; Suja & Elamaran, 2024).

Types of Assistive Technologies for Differently Abled English Language Learners

Assistive technologies have been instrumental in recent years to allow the differently-abled learners to participate in the English language learning process by eliminating the obstacles associated with physical, cognitive, and sensory impairments.

Screen Readers: Students with low levels of vision may use a screen reader such as JAWS, NVDA, and VoiceOver to read text on a screen and gain access to digital media. JAWS finds applications in the educational world because of its customization capabilities, whereas NVDA is a free system that allows the use of a braille display and web access (Freedom Scientific, n.d.; NV Access, n.d.). Apple has this feature, VoiceOver, which enables the visually impaired learners to navigate iPhones, iPads, and Macs (Apple, n.d.).

Speech Recognition Software: Speech recognition programs such as Dragon NaturallySpeaking can be beneficial as they allow physically challenged learners to dictate text, which is useful especially to students with low hand/finger coordination (Nuance Communications, n.d.). The technology is useful to students with writing difficulties (including dysgraphia) because it does not rely on the conventional writing systems (Barbhuiya, n.d.).

Text-to-Speech (TTS) Software: TTS software, such as Kurzweil 3000 and NaturalReader, can be used by both learners with dyslexia and those with other reading difficulties by transforming written text into spoken words and potentially supporting reading comprehension (Kurzweil Education, n.d.; NaturalReader, n.d.).

Sign Language Translation Technology: To address the needs of students with hearing disabilities, technologies such as Hand Talk allow users to convert text or speech into supported sign languages with the help of AI, potentially supporting classroom communication where those sign languages are used (Hand Talk, n.d.).

Augmentative and Alternative Communication (AAC) Devices: These are communication aids that help students with speech disabilities to communicate through symbols or words that are pronounced out loud by the machine (Barbhuiya, n.d.).

Mobile Apps: The English language can be practised with the help of such apps as Duolingo and Grammarly, which can be used to assist learners, providing them with adaptive learning possibilities and real-time grammar suggestions, respectively, which may support personalised learning (Duolingo, n.d.; Grammarly, n.d.).

Thus, assistive technologies can empower differently-abled learners as they allow access to content, provide independence and offer them individual learning experiences that can play an essential part in their academic achievements.

Implementation of Technology in Indian Classrooms

Providing assistive technology to the differently-abled learners in the Indian classrooms is a complex issue that needs an interdisciplinary approach to policy intervention at the government level, infrastructure support, teacher training and integration at school level. Although there have been improvements, there are still some areas that require bridging gaps in access and effective use of technology in inclusive learning.

Here the first hindrance is limited access to devices and consistent internet connectivity in Indian schools, particularly rural and low-income schools. As this policy makes it very clear that technology provides a transformative force of inclusive education, the National Education Policy (NEP) 2020 recommends the utilisation of ICT and digital solutions to deliver quality education to all learners, including students with disabilities (Ministry of Human Resource Development, 2020). In fact, the availability of devices and connectivity in classrooms is not uniform, and many schools do not have enough computers, smart devices, or broadband that can support assistive solutions (Oxfam India, 2022). This gap is supplemented by private sector efforts and non-profits such as Children's LoveCastle Trust (CLT India) providing and implementing e-learning solutions to government schools which include introducing digital content that could be modified to suit various learners (Children's LoveCastle Trust India, n.d.). However, in most areas there is still no comprehensive access to assistive devices like the screen readers or adaptive hardware.

Some of the policy frameworks that are aimed at accessibility and inclusive education have been initiated by the Indian government. Accessible India Campaign (Sugamya Bharat Abhiyan) is an initiative to ensure that public

infrastructure, digital content, and services to Persons with Disabilities (PwDs) are made accessible as an indirect means of facilitating access to digital learning tools as part of overall efforts at digital inclusion (Department of Empowerment of Persons with Disabilities, n.d.). Samagra Shiksha also offers aid and appliance funding and support at the school system level, such as assistive devices to children with special needs (CwSN), teacher sensitisation and training activities that support the educational needs of differently abled learners (Ministry of Education, 2024). Moreover, the Rights of Persons with Disabilities Act (2016) requires measures towards inclusive education, which is supported by NEP 2020 in the promotion of ICT and assistive technologies as curriculum and classroom tools (Ministry of Human Resource Development, 2020).

Implementation in pockets of assistive technology has been noted to be successful in India. As an illustration, the government schools in Prayagraj have implemented Annie Braille devices to support visually impaired students in learning through interaction with sounds, to make learning more interactive and self-reliant ("Prayagraj Govt Schools," 2025). Such types of technology implementations—whether Braille learning systems, audio-visual aids, or digitized material made accessible to the learner—can demonstrate how assistive technologies can be put into action in the current classrooms when they have resources and the will. Additionally, organisations like the Council for the Indian School Certificate Examinations (CISCE) have released a school handbook through which schools can follow the principles of inclusion, which includes the assistive devices and techniques in conformity to NEP 2020 (Council for the Indian School Certificate Examinations, 2025).

Teacher awareness and training are crucial in terms of the effective use of the assistive technologies. Research in the field of inclusive schools and institutions in India has pinpointed the fact that teachers may lack awareness of available technologies and face difficulties incorporating them into education (Jena & Parhi, 2022). To close this gap, specialised courses to provide teachers with skills to effectively exploit assistive technology in classes to encourage higher levels of inclusion are being developed by such initiatives as the Commonwealth Educational Media Centre for Asia (CEMCA) (Commonwealth of Learning, 2024). Capacity-building programmes, whether in the training of resource teachers under Samagra Shiksha or in professional development in schools, are necessary such that educators are able not only to use assistive devices but also to adjust pedagogy to diverse learning requirements.

Thus, whilst there are favourable structures in place in India, including national policies and specific initiatives, the actual effectiveness of technology in classrooms is based on overcoming the digital divide, proper teacher training, and mass-scale adoption of assistive technologies in schools.

Case Studies

The analysis of real-life examples of technology application to aid the learning of differently abled learners in India offers some valuable insights into the use of assistive technology and some of the current difficulties of its application. The case studies below suggest that with the aid intelligently incorporated in learning settings, targeted interventions can support participation in learning.

The Ranga Rao Memorial School for Differently Abled, Mysuru, Karnataka is reported to be an example of using technology for students with different disabilities to be able to learn and succeed in studies. The school began a programme in five years before the report, which provided students with smartphones on passing the Secondary School Leaving Certificate (SSLC)examinations. The gadgets had embedded features and functions to support an aspect of accessibility, such as the Optical Character Recognition (OCR) software, screen reading hardware and software, and specialised applications like 'InstaReader' or 'Be My Eyes' which allowed one to read and navigate content independently (Times New Network, 2025). These assistive resources can help students gain access to reading content, to use English language learning-based applications, and to navigate through the digital world on their own, which may increase academic involvement and self-determination. The project is one way that shows how accessible smartphones (which may have assistive technology and learning tools built in pre-packaged) can provide access to students with visual or other impairment (Times News Network, 2025). Facilitating access to digital educational resources such as devices that meet the requirements of learners with disabilities may help the school support academic participation, especially access to literacy-related materials and English content.

Although there are fewer published studies on specific individuals in India, organised case studies in the national media offer examples of personal success related to access to assistive technologies. A 16-year-old student

in Mumbai who has cerebral palsy has scored 83 per cent in his Class 10 CBSE examinations despite his mobility and coordination problems. He relied on assistive technologies like voice tools, laptops, text highlighters, audio notes, and educational videos (Khan, 2025). These were used to allow him to engage with digital learning materials, online teaching, and also handle written work.

Problems and Lessons Learned

Based on these illustrations, various important lessons can be drawn. First, access to technology will not be enough and students need training on how to utilize tools as well as educational assistance that meets their learning requirements. In the Mysuru school case, students who cleared the SSLC examination were provided with devices with built-in accessibility components, suggesting that ready-to-use devices may minimise adoption obstacles (Times News Network, 2025). Also, a single learner in Mumbai succeeded with a mix of technology availability and support from teachers and family members, which illustrates the importance of social and instructional support systems (Khan, 2025).

Nevertheless, there are obstacles to overcome: budget constraints, inequalities of access to reliable internet connections or gadgets, and lack of teacher education continue to be the challenges across the vast Indian environments, and the a special-school study on awareness and access to assistive technology (Jena & Parhi, 2022) reveal this issue. These difficulties highlight the necessity to have an all-encompassing approach when it comes to infrastructure investment coupled with capacity-building of educators and long-term support of learners and their families.

Impact of Technology on Learning Outcomes

Integration of assistive and inclusive technology in education has played a major role in determining the outcome of learning among the differently-abled learners particularly in areas of engagement, customized education and general gains of academic and social advantage. These technologies can help to shatter the boundaries of participation not to mention that they allow the learners to engage with the content in a way that suits their individual requirements.

The assistive technologies may aid in enhancing both interest and motivation of learners which are two important factors in successful learning of the English language. The interactive screen readers, speech-to-text programs, and the gamified adaptive tools provide the learner with another way of accessing learning material because this alternative can help the learner become more engaged and interested. It has been found that such technologies do not only make things more accessible but also make the process more active and enable students with diverse needs to participate in the learning process (Samaniego López et al., 2025). Also, it has been revealed that the sense of inclusion and participation can be enhanced through the use of assistive devices (Fernández-Batanero et al., 2022). Higher engagement has also been associated with positive psychosocial outcomes, since assistive technology may be used to overcome a sense of isolation and allow students to engage in group communication (McNicholl et al., 2023).

Assistive and adaptive technologies also have potential for supporting the delivery of personalized learning experiences. With the help of adaptive platforms, including AI-assisted applications, one can tailor the educational content to the learning needs of every learner and allow students to learn at their own pace while considering their strengths (Chalkiadakis et al., 2024). Processing speed differences, language skills, attention, or other forms of learning may also be accommodated through technology where real-time feedback and dynamic content can be used to support learning and retention (Chalkiadakis et al., 2024). Personalized learning also allows the learner to build self-efficacy because he will be taught in a manner that suits him in his learning processes.

Besides participation and personalised teaching, assistive technologies can help in the academic and social development. The students are challenged more cognitively because they can access the content of a subject that they could not otherwise readily access without the assistance of a tutor and this may support their performance in reading, writing, listening and communication skills (Fernández-Batanero et al., 2022). Technology gives the learner increased autonomy socially; the learner does not rely that much on constant mediation by a human being; peer interaction that builds confidence and communication is facilitated (McNicholl et al., 2023). For example, with better communication activities, students with speech or hearing impairments are able to participate in classroom discussion and group learning activities more actively. All in all, these technologies can improve the quality of the academic performance and encourage the inclusion, self-esteem, and active learning experiences.

Challenges in the Integration of Technology in India

Although policy frameworks support inclusive education and digital learning, several challenges exist in the integration of technology to serve diverse learners with disabilities in India in real situations. These obstacles encompass the infrastructure gaps, awareness and training gaps, cultural and linguistic resistance, and high cost, which together restrict the possibility of the assistive technologies to enhance the learning outcomes of students with disabilities.

One of the biggest challenges faced during technology integration is the absence of infrastructure and this is mostly seen in rural and poor areas in India. The lack of access to electricity, computers, and the internet is a common problem in many of the village schools, and they are not able to utilize digital tools and online resources without proper access to computers and the Internet. Digital inclusion reports show that the rural Indian regions are still miles behind the urban regions in internet access, and relatively few rural families are connected, and this limits access to educational technologies and assistive learning tools by students (Oxfam India, 2022). Moreover, the digital divide continues to exist on various levels, including within states and between urban and rural regions as well as socio-economic lines, which restricts the fair access to digital education (Oxfam India, 2022). Without a regular power supply, broadband access, and adequate digital devices, some of the most carefully planned assistive technologies are still not accessible to a significant portion of learners.

The other major problem is the lack of awareness and training among teachers, parents, and educational administrators on the use and advantages of assistive technologies. A study conducted in a special education institution in India revealed that learners and teachers usually do not know about the available assistive tools and how to incorporate them into the teaching and learning process (Jena & Parhi, 2022). Not surprisingly, in cases where teachers are not confident with the use of digital tools, there is also limited use of digital tools in their classroom and students are not able to enjoy the full benefits of assistive technologies. In the same way, the parents who do not know of the benefits are unlikely to encourage or suggest the use of these tools by their children at home or at school.

Another factor that hinders the adoption of technology in most Indian classrooms is cultural perceptions and linguistic diversity. Within a few communities, disabilities are linked with stigma and this may deter families and schools from seeking specialised assistance such as interventions based on technology. Moreover, India possesses a plethora of local languages, which makes it difficult to create and implement the assistive technology, which is both culturally relevant and linguistically accessible, particularly in rural regions where educational materials are usually presented in regional languages, as opposed to English (Suja & Elamaran, 2024).

Finally, there exists the problem of the expense of assistive equipment and/or program. Most adaptive technologies such as through specialized communication equipment, a sophisticated screen reader, or a speech to text system are expensive and also have ongoing cost as a result of software updates and technical assistance. These costs can be too high for some schools and families, even with adequate government subsidies and funding or donor support, especially in low-resource communities.

The potential of changing inclusive education in India through technology is great, but the inadequacy of infrastructure, awareness and capacity building, cultural and linguistic barriers, and financial constraints will keep inclusive education a problem to be solved. These puzzling barriers need to be figured out in the way to overcome the technological barrier than building a barrier with it.

Future Prospects and Innovations

New technologies, such as Artificial Intelligence (AI), Virtual Reality (VR), Augmented Reality (AR) have great potential in changing the learning experience of differently-abled learners in the field of English language education as it continues to move into the digital domain. These technologies could generate more responsive, interactive and inclusive educational systems that would enable individualized needs to be tackled on the fly.

AI has demonstrated potential to increase accessibility in education by providing adaptive learning systems that can learn individual details of a learner, their pace, and needs. The use of AI-based technologies, such as smart screen readers, intelligent voice assistants, and natural language processing interfaces, can enhance autonomy and content accessibility among students with visual, cognitive, or physical disabilities and increase their engagement and personalised learning processes. Such systems are able to analyse the responses of the learners and dynamically

regulate the difficulty, pacing or modality of content so that English learning is more responsive to the needs of the learner (Chalkiadakis et al., 2024).

Similarly to AI, VR and AR have the ability to establish multisensory and immersive learning settings in which differently-abled learners will be able to understand concepts based on experience, not only text. Contextualised practice of English in immersive VR may be situational role-plays or real-life conversation situations, allowing learners to develop language fluency in a learner-safe and learner-friendly environment. When used together with AI, these technologies can provide high-quality experiential learning opportunities that extend beyond the conventional classroom approaches and may benefit learners at different levels (Chalkiadakis et al., 2024).

The Indian government is also becoming aware of this possibility; hence it is turning to emerging tech in education. Digital-based technologies, adaptive platforms, and pedagogical innovation are highlighted in the policy trends according to the National Education Policy (NEP) 2020 as a way of creating inclusive education systems that can accommodate the needs of various groups of learners (Ministry of Human Resource Development, 2020). In the meantime, non-profit organizations (including the 1M1B Foundation) along with private sector organizations are already implementing AI, AR, and VR skills within school curricula and training programmes to address the digital equity divide, and equip students with the skills to handle future learning environments (Panday & Mehmood, 2025).

These innovations can only be fully realised in the event of collaboration between the educational institutions, technology developers, NGOs and the government agencies. The partnerships may be used to create inclusive digital tools, which are culturally and linguistically relevant, invest in infrastructure that supports equitable access, and train educators to master the newest technologies. These are some of the collective efforts which will not only help in making technological developments enrich English language learning among the differently-abled students but also enhance societal inclusion and lifelong learning in the changing Indian educational context.

Conclusion

Assistive and inclusive technologies have demonstrated great potential in enhancing learning of the English language among the differently-abled students in India. Screen readers, speech-to-text applications, and adaptive mobile applications are some of the technologies that have provided greater access to learning, engagement, and personalised instruction to students with physical, sensory, and cognitive disabilities (Fernández-Batanero et al., 2022; Jena & Parhi, 2022). The National Education Policy (NEP) 2020 is in favour of the use of digital technologies as a key to equitable education and promotes the inclusive classroom to narrow gaps among learners with disabilities (Central Institute of Educational Technology, 2025; Ministry of Human Resource Development, 2020).

The effects of technology, however, require proper collaboration and implementation. Funding in terms of accessibility of tools, infrastructure and teacher training should be given priority by the policymakers in order to make sure that assistive technologies are implemented in a meaningful way. Also, the tech developers have to create products that can be used by everyone, and educators should be provided with the ability to operate these tools efficiently (Fernández-Batanero et al., 2022; Jena & Parhi, 2022). In the future, technology can transform the teaching and learning of the English language among the differently-abled students in India; therefore, it is a necessary part of inclusive education. Further innovation, teamwork, and encouragement will make these technologies not appear as a luxury, but as the baseline of establishing inclusive and accessible educational systems for everyone.

References

Apple. (n.d.). *VoiceOver user guide for Mac*. Apple Support. Retrieved October 25, 2026, from https://support.apple.com/en-in/guide/voiceover/welcome/mac

Barbhuiya, R. K. (n.d.). *Assistive technology, open educational resources (OER), and licensing* [Presentation slides]. Central Institute of Educational Technology, National Council of Educational Research and Training. https://ciet.ncert.gov.in/storage/app/public/files/13/srg/archive/Assistive_Technologies.pdf

Central Institute of Educational Technology. (2025). *Inclusive education and digital technology*. National Council of Educational Research and Training. https://ciet.ncert.gov.in/activity/iede

Chalkiadakis, A., Seremetaki, A., Kanellou, A., Kallishi, M., Morfopoulou, A., Moraitaki, M., & Mastrokoukou, S. (2024). Impact of artificial intelligence and virtual reality on educational inclusion: A systematic review of

technologies supporting students with disabilities. *Education Sciences, 14*(11), Article 1223. https://doi.org/10.3390/educsci14111223

Children's LoveCastle Trust India. (n.d.). *e-Patashale*. https://cltindia.org/e-patashale.html

Commonwealth of Learning. (2024, September 16). *New CEMCA initiative to empower Indian teachers with assistive technology skills for inclusive education*. https://www.col.org/news/new-cemca-initiative-to-empower-indian-teachers-with-assistive-technology-skills-for-inclusive-education/

Council for the Indian School Certificate Examinations. (2025). *CISCE handbook on inclusive education*. https://cisce.org/wp-content/uploads/2025/07/EDITED_CISCE-Handbook-on-Inclusive-Education.pdf

Department of Empowerment of Persons with Disabilities. (n.d.). *Accessible India Campaign (Sugamya Bharat Abhiyan)*. Government of India. https://depwd.gov.in/en/accessible-india-campaign/

Duolingo. (n.d.). *Duolingo*. Retrieved October 25, 2026, from https://en.duolingo.com/

Fernández-Batanero, J. M., Montenegro-Rueda, M., Fernández-Cerero, J., & García-Martínez, I. (2022). Assistive technology for the inclusion of students with disabilities: A systematic review. *Educational Technology Research and Development, 70*, 1911–1930. https://doi.org/10.1007/s11423-022-10127-7

Freedom Scientific. (n.d.). *Welcome to JAWS for Windows* [Quick start guide]. https://www.freedomscientific.com/Content/Documents/Manuals/JAWS/JAWS-Quick-Start-Guide.pdf

Grammarly. (n.d.). *Free grammar checker*. Retrieved October 25, 2026, from https://www.grammarly.com/grammar-check

Hand Talk. (n.d.). *Introduction*. Hand Talk Plugin. https://docs.handtalk.me/en/docs/introducao/

Jena, S., & Parhi, R. K. (2022). Awareness and access to assistive technology among students with disabilities: Evidence from a special school. *Indian Journal of Educational Technology, 4*(1), 37–51. https://journals.ncert.gov.in/IJET/article/view/500

Khan, S. K. (2025, May 14). Teen with cerebral palsy notches 83%. *The Times of India*. https://timesofindia.indiatimes.com/city/mumbai/teen-with-cerebral-palsy-notches-83/articleshow/121146263.cms

Kurzweil Education. (n.d.). *Kurzweil 3000*. https://www.kurzweiledu.com/products/k3000.html

McNicholl, A., Desmond, D., & Gallagher, P. (2023). Assistive technologies, educational engagement and psychosocial outcomes among students with disabilities in higher education. *Disability and Rehabilitation: Assistive Technology, 18*(1), 50–58. https://doi.org/10.1080/17483107.2020.1854874

Ministry of Education. (2024, July 29). *Accessibility and inclusivity in education for Divyangs*. Press Information Bureau. https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=2038623&lang=2&reg=48

Ministry of Human Resource Development. (2020). *National education policy 2020*. Government of India. https://static.pib.gov.in/WriteReadData/userfiles/NEP_Final_English_0.pdf

NaturalReader. (n.d.). *NaturalReader AI text to speech*. Retrieved October 25, 2026, from https://www.naturalreaders.com/

Nuance Communications. (n.d.). *Mixing dictation with typing*. https://www.nuance.com/products/help/dragon/dragon-for-mac6/enx/Content/Dictating/Talk_Type.html

NV Access. (n.d.). *NVDA*. https://www.nvaccess.org/product/nvda-/

Oxfam India. (2022). *Digital divide: India inequality report 2022*. https://www.defindia.org/wp-content/uploads/2023/01/2.-Digital-Divide-India-Inequality-Report-2022.pdf

Panday, S., & Mehmood, S. (2025, January 24). *AI and human agency—India's role in shaping the future of learning*. UNICEF India. https://www.unicef.org/india/blog/ai-and-human-agency-indias-role-shaping-future-learning

Prayagraj govt schools introduce Braille device to make learning fun. (2025, September 23). *The Times of India*. https://timesofindia.indiatimes.com/city/allahabad/prayagraj-govt-schools-introduce-braille-device-to-make-learning-fun/articleshow/124075843.cms

Right of Children to Free and Compulsory Education Act, No. 35 of 2009, India Code (2009). https://www.indiacode.nic.in/indiacode/handle/123456789/2086

Rights of Persons with Disabilities Act, No. 49 of 2016, India Code (2016). https://www.indiacode.nic.in/handle/123456789/2155

Samaniego López, M. V., Orrego Riofrío, M. C., Barriga-Fray, S. F., & Paz Viteri, B. S. (2025). Technologies in inclusive education: Solution or challenge? A systematic review. *Education Sciences, 15*(6), Article 715. https://doi.org/10.3390/educsci15060715

Sarkar, T. (2020, August 19). *Examining disability inclusion in India's new national education policy*. UKFIET. https://www.ukfiet.org/2020/examining-disability-inclusion-in-indias-new-national-education-policy/

Suja, G. P., & Elamaran, S. (2024). Challenges of inclusive education in India. *Shanlax International Journal of Arts, Science and Humanities, 11*(3), 98–104. https://doi.org/10.34293/sijash.v11i3.6905

Times News Network. (2025, July 12). School presents smartphones to disabled students clearing SSLC. *The Times of India*. https://timesofindia.indiatimes.com/city/mysuru/school-presents-smartphones-to-disabled-students-clearing-sslc/articleshow/122409437.cms