



## **Can accessible consumer electronics bridge the gap in assistive technology provision?**

Many smartphones today include accessibility features that can complement and for many use cases replace specialised assistive technology (AT) such as screen-readers, screen loops, speech-to-text programmes or alternative augmented communication (AAC). In some cases, an accessible mainstream device would even better fulfil the requirements of users with disabilities and/or individual access needs than specialised AT. Many students for example would prefer an accessible smartphone, tablet or computer with the necessary features for following the lectures and accessing university services at a lower price and in a more blended-in (fashionable) way than the usually provided AT. However, mainstream devices are hardly ever eligible for funding, which in most cases is limited to specifically selected equipment lists.

For this reason, the MWF in 2021 initiated a research project to investigate whether devices listed in GARI fulfil the requirements of assistive technology (AT) and could be eligible for national assistive technology funding. A team of researchers from the Global Universal Design Commission Europe (GUDC-EU), and David Banes Access and Inclusion Services analysed the current policy environment in six countries, analysed eligibility, approval, funding, and provision of assistive technology – checking against user needs, and developed initial indicators for the social return on investment (SRoI) for including mainstream consumer technology in AT provision schemes.

The analysis of the key features that support accessibility for smartphones and tablets showed that these features focus on making the device more usable for people with disabilities and from this aspect do not directly fall under the definition of assistive technology. However, a comparison with international standards (including the WHO's Priority Assistive Products Lists, the ISO 9999 standard on "Assistive products for persons with disability", the EN 301 549 on "Accessibility requirements for ICT products and services" as well as the Section 508 requirements for accessible ICT in the US, and the International Classification of Functioning, Disability and Health) revealed that 25 of the over 130 features listed in GARI are assistive in nature and match the requirements laid out in the standards applicable for AT.

The research has further shown that there is potential for AT to offer wider participation in employment for people with disabilities and increase their independence. Additionally, AT available at mainstream reach, with their lower cost thresholds than specialist equipment, can reduce the costs to the taxpayer and provide a good ratio of SRoI. Mainstream AT devices supplied to people with disabilities based on their individual needs can widen the availability of support and choices based on each individual's preference. This could be made possible by basing AT provision on purpose and outcomes rather than an increasingly blurred distinction between accessible and assistive products. It would have also the benefit of "future-proofing" provision to include new technologies such as smart speakers and wearable technologies where the help of those products is demonstrable for people with a disability.

Overall, GARI listed devices could bridge the gap in what is provided to people with disabilities and their specific needs. The GARI list describes many devices that can be helpful to people with disabilities having in mind that these devices are equipped with built-in accessibility features which are of great use and beneficial to people with disabilities. Supporting disabled people with access to AT can significantly reduce loneliness and allow them to be more active and participate in society.

Based on this research, two publications in peer-reviewed journals are under preparation.

*March 2022*