

Policy recommendations

Including people with disabilities

The opportunity

Cloud computing offers significant benefits for people of all ages and abilities. It can empower people with visual, learning, age-related, mobility, hearing, and speech disabilities to learn more effectively, engage and collaborate with others more easily, and express themselves more clearly. Cloud-connected devices deliver assistive technologies such as audio captioning, speech recognition, natural language processing, and machine learning. And because the cloud is a repository for custom settings, people can access information and services formatted to meet their preferences wherever they go, on almost any device.

Computers and the internet have also created opportunities for people with disabilities to pursue an education, participate in the workforce, access government services, and engage in society. But a recent World Bank study found that people with disabilities are still significantly more likely to be unemployed and experience poverty. Cloud computing can help change this. In particular, accessible cloud-based technologies can ensure that people with disabilities have access to services and content in today's increasingly digital world. Cloud computing can also power new assistive services that provide greater independence and mobility for people with a wide range of disabilities. Many of these innovations will also help people remain productive and independent as they age.

The challenge

There are more than 1 billion people around the world with disabilities. Often, they face significant barriers when it comes to employment, education, healthcare, transportation, access to technology and government services, and more. Barriers to education for children with disabilities are particularly

harmful because they have a lifelong impact on employability and contribute to high poverty rates for adults with disabilities. While cloud computing already offers significant accessibility opportunities, people with disabilities are often the last to gain access to the benefits of technology-based innovation.

Policy recommendations

For people with disabilities, cloud computing can provide capabilities that improve access to education, employment, government services, and rich engagement in society. To ensure that the benefits and opportunities provided by cloud computing are available to people with disabilities, governments should consider the following steps:

Procure accessible technologies. When public agencies purchase and use accessible technologies, access to public information and workforce participation by people with disabilities increases. By incorporating accessibility criteria such as ETSI EN 301 549 into procurement policies and requesting detailed compliance statements from technology and solutions providers, governments can create economic incentives for businesses to invest in more innovative accessible products. But while the United States and many European governments require federal agencies to procure accessible technologies, just one-third of countries that have signed the Convention on the Rights of Persons with Disabilities have enacted similar policies. All governments should sign the Global Initiative for Inclusive Information and Communication Technologies (G3ict) charter and integrate accessibility into their procurement procedures.

Promote globally harmonized standards. The speed of innovation in the technology sector can outpace legislation meant

to encourage accessibility and promote cloud services. Global standards such as ETSI EN 301 549 and ISO/IEC 40500 (W3C Web Content Accessibility Guidelines 2.0) are a better option than laws requiring features or services and excluding others. This encourages the development of a broad range of products and content that can be used by everyone. By enacting public procurement policies based on these standards and requiring accessible technology from their suppliers, governments can create incentives for businesses to develop innovative, accessible products. These incentives are most effective when they are based on global standards that create unified digital markets.

Embrace innovation. When governments try to solve complex challenges with obsolete technologies, people with disabilities are often left behind. Governments should adopt policies that encourage educators to work with the technology industry to create new solutions that are based on cloud technologies and encourage their use in the classroom.

Make e-government services accessible. By adopting policies that mandate accessibility for government information and e-government services, policymakers can ensure that people of all abilities stay informed, participate fully in civic life, and take advantage of public-sector benefits, opportunities, and employment. To achieve this goal, governments should require documents, presentations, web content, applications, and software solutions to be created and maintained in a manner consistent with applicable accessibility guidelines.

Empower teachers. Teachers need to understand the value of accessible technology in the classroom. Education authorities should promote awareness and provide skills training to help teachers understand how to use new technologies to improve

learning in the classroom. Most technology tools that are used in schools—such as computers, tablets, and PCs—have features and support personalized settings that can help students access material and collaborate with peers, vastly improving accessibility in education. Skills training should help teachers take advantage of these accessibility features. Enabling teachers to create learning materials that are accessible to students with disabilities is also essential. When teachers understand how to adjust curriculum and content to the unique needs of their students, schools can successfully serve the needs of students with disabilities.

Evidence and further reading:

UNESCO: [“UNESCO Model Policy for Inclusive ICTs in Education for Persons with Disabilities”](#)

ETSI: [“ETSI EN 301 549 V1.0.2 Accessibility requirements suitable for public procurement of ICT products and services in Europe”](#)

ISO/IEC 40500: [“2012 Standard: Information technology -- W3C Web Content Accessibility Guidelines \(WCAG\) 2.0”](#)

ETSI Accessibility requirements suitable for public procurement of ICT products and services in Europe: [ETSI EN 301 549](#)

Global Initiative for Inclusive Information and Communication Technologies (G3ict) charter: [“Promoting Global Digital Inclusion through ICT Procurement Policies & Accessibility Standards”](#)

Egypt’s Model Policy for Accessible Education: [“Implementation of Accessible Information and Communications Technology in Education”](#)

Australian Government Announcement: [Federal government will adopt the European standard for the procurement of accessible ICT \(EN 301 549\)](#)

Microsoft White Paper: ["Accessibility and the Cloud"](#)

Microsoft White Paper: ["Accessibility Requirements for Public Procurement of ICT in Europe"](#)

Microsoft Blog: [Creating incentives for digital inclusion: Microsoft announces support for G3ict charter for accessible technology](#)

For links to these and other resources, please visit:
<http://www.microsoft.com/cloudforgood>