



Good practices and achievements in ICT Accessibility in the Americas Region

**-Guidelines and recommendations-
2017**

**Accessible Americas IV
San Jose, Costa Rica – 21 to 23 November 2017**

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1. INTRODUCTION

1.1 Accessible Americas

Globally, persons with disabilities (PwD) face a range of barriers and challenges relating to access to information, education and employment, which can be alleviated through equitable access to ICTs accessibility by legislators, policy-makers and regulators.

Some of the challenges PwD face in an ICT context include the cost and availability of necessary equipment such as mobile handsets, televisions, tablets and computers which offer features to enable PwD to use ICTs effectively. Even where there is no additional cost, and accessibility features are embedded (for example in mobile handsets), awareness, training and education of both users and service providers are often required in order to break the accessibility barrier.

As a result of the efforts of the Development Sector of the International Telecommunication Union (ITU-D) to raise visibility on ICT accessibility policies to its Members, the Americas region developed the series “**Accessible Americas: Information and Communication Technologies for ALL**” which’s four past editions were held in Brazil in 2014, in Colombia in 2015, in Mexico in 2016 and in Costa Rica in 2017. In 2017, the series changed to “Accessible Americas – Information and Communication Technologies for ALL”, embracing other vulnerable groups in addition to the group of Persons with Disabilities. Now the “Accessible Americas” has widen its scope and became an event to present and discuss all social / digital inclusion related issues. The Accessible Americas events have become one of the key events in the Americas region focusing on ICT accessibility for PwD and as from 2017, embracing other vulnerable groups. It brings together stakeholders involved in implementing ICT accessibility/inclusion policies. These events aim to raise awareness, provide capacity building in ICT accessibility, share experiences, achievements and track concrete results regarding ICT accessibility for all within the Americas. The positive results provided by these events, represent good practices to be replicated in the Americas and other regions.

1.2 Understanding this document

This guide presents the developments and improvements in ICT accessibility across the Americas. These improvements have been divided into sections following the Model ICT Accessibility Policy Report as provided by the ITU¹. These sections cover the basic tools that policy-makers and regulators need to consider in order to improve ICT accessibility in their respective countries. An additional section that highlights good practices in capacity building and other ICT accessibility projects, was added to facilitate the consultation process of the document in regard to training practices and other initiatives that are not easily classified within the other sections of this document.

¹ Model ICT accessibility policy report, ITU, November 2014. See: <http://www.itu.int/en/ITU-D/Digital-Inclusion/Pages/Reports.aspx> to download the pdf (In Spanish and English)

The experiences presented in this document should be used to inspire developments and improvements in ICT accessibility by other countries and related stakeholders in the Americas. Most of the practices and developments are presented considering that they can be replicated. Additionally there are remarks on existing laws and policies as well as examples of practices and regulatory frameworks on ICT accessibility, which could serve as reference to be applied in other countries and hence achieving a more inclusive society.

Additionally, the report provides some new developments in assistive technologies and highlights some projects and initiatives of companies and programs that are in the process of development, testing, presentation of prototypes, etc., so one can have an idea of what is being thought / developed in the field of ICT accessibility and that may be available in a very near future.

2. ICT ACCESSIBILITY TOPICS

2.1 Legal policy and regulatory frameworks

○ BOLIVIA

Inclusion as State policy: This is how Bolivia deepens its social policies

With an act in the Government Palace in La Paz, a project was formally initiated that seeks to hire people with different capacities in public agencies and companies. In this way they are guaranteed the right to work and the possibility of having a livelihood. In the first stage of the National Plan for the employment insertion of people with disabilities, 500 will be hired by different entities. Ministries of Communication, Transparency, Justice, Autonomies, Presidency, Education, Planning and Health were the first ones to incorporate this social sector as workers. The same will do the public companies My Cable Car, Emapa, Boa and Comibol, among others.

[Presidential Act in Bolivia](#)

○ CANADA

Canadians have their say on an Accessible Canada in Vancouver and Ottawa

A consultation process to inform planned accessibility legislation took place in Canada. All Canadians were encouraged to participate in the consultation either in-person in a session near them or by completing an online questionnaire. The main objective was to hear the suggestions and learn citizens' view for an Accessible Canada. Powerful messages were forcefully delivered by so many people who have experienced the frustrations that come with unnecessary barriers and exclusion, but who, at the same time have experienced the joys of inclusion when obstacles and barriers are removed forever.

[Research for an accessible Canada](#)

○ **COLOMBIA**

Technology makes life easier for people with disabilities in Colombia

In Colombia, there are 2.9 million people living with disabilities and the National Government, through the Ministry of Information Technologies and Communications (MinTIC), has found in technology the best tool to support these Colombians. The MinTIC has four programs, which are part of its Plan Vive Digital, with which it makes available to all Colombians in disability condition a series of technological tools to access health, work and education in an integral way. These are: ConverTIC, Cine para Todos, Centro de Relevó and NarraTic. For example, the ConverTIC is a free software download service and literacy cycles for people with visual impairment, which allows 1.2 million blind and low vision Colombians to use computers, surf the Internet and consult accessible digital content. According to MinTIC, this type of initiative not only encourages creativity, but also helps to boost innovation, entrepreneurship and citizen participation.

[Plan Vive Digital](#)

○ **COSTA RICA**

Government Program “Hogares Conectados” benefit low-income families and PwD

The Project “Hogares Conectados”, developed by the Center for research and training in public administration (CIPAC) UCR, at the request of the Superintendence of Telecommunications (Sutel) and the Fondo Nacional de Telecomunicaciones (Fonatel), was finalist in the awards 2016 of the World Summit on Information Society (WSIS) of the United Nations. The proposal is a strategy to reduce the digital divide and ensure telecommunications services to the inhabitants of the country in terms of economic, geographic, and social vulnerability through the promotion of connectivity, the availability of access devices and broadband Internet services. The program is an example to be followed for bridging the digital divide and also benefits families that have people with disability (PWD) among its members.

[Hogares Conectados](#)

○ **JAMAICA**

Work on Disabilities Codes and Regulations

On January 2017 the Jamaica Council for Persons with Disabilities (JCPD) started the drafting of codes and regulations which will set the minimum standards on how the public is to interact with persons with disabilities. They will also guide the participation of persons with disabilities in society and will state the penalties for discrimination. Funding will be made available through the World Bank’s Social and Economic Inclusion of Persons with Disabilities Project to draft the codes relating to Education and Training, and Employment.

[Jamaica Observer](#)

○ **UNITED STATES OF AMERICAS**

US Access Board Proposes Updated ICT Accessibility Requirements

The US Access Board released for public comment a proposed rule updating Requirements for Information and Communication Technologies (ICTs). The proposed rule updates various requirements to address fundamental shifts and trends in the market, such as the convergence of technologies and the increasingly multi - functional capabilities of products like smart phones.

[US Access Board-ICT](#)

Guidance documents clarify rights of students with disabilities

The U.S. Department of Education released three new sets of guidance to assist the public in understanding how the Department interprets and enforces federal civil rights laws protecting the rights of students with disabilities. These guidance documents clarify the rights of students with disabilities and the responsibilities of educational institutions in ensuring that all students have the opportunity to learn. These guidance documents share information with educators, parents, and students about important educational rights, including school obligations to identify, evaluate, and serve students with disabilities.

[US Department of Education-releases](#)

Legislation to Improve Educational Opportunities for Students with Disabilities

Senators (R-W.V.) on November 7 introduced bipartisan legislation that would strengthen the Individuals with Disabilities Education Act (IDEA) to ensure that students with vision and hearing disabilities receive the best possible education. The Alice Cogswell and Anne Sullivan Macy Act will improve the effectiveness and personalization of education and services for students who are deaf, hard of hearing, blind, low vision, and deaf-blind. The legislation would improve reporting and evaluation measures of special education in each state, increase training for teachers and other special education professionals, and reaffirm the Department of Education's mission and responsibility to ensure an accessible and quality education for all students.

[Legislation](#)

2.2 Promotion of Public Access

○ **ARGENTINA**

Students at UBA developed the Giromouse, a very useful device to improve the quality of life of people with disabilities

Students of the Faculty of Electronic Engineering at the University of Buenos Aires (UBA) developed the Giromouse, a very useful device for people with disabilities. For now, there are prototypes in use and for demonstrations, while they work in an industrial design that also includes wireless. The Giromouse has a movement sensor arranged for one side of the head that takes upward, down and sideways movements and indicates where the mouse pointer should go and another which, placed on an eyebrow (the device is smart) when it is raised the click activates.

It was presented in the Potenciate contest, which is promoted by the government of the City of Buenos Aires and won the first prize in the category Innovation, Science and Technology.

[The Giromouse](#)

○ **BOLIVIA**

Ensuring opportunities for persons with disabilities

The Ministry of health of Bolivia and its Bio-Psycho-Social Rehabilitation and Disability Unit started in 2013 a programme through rehabilitation centres to provide care to people with disabilities in the nine departments of the country. In three years, management provided care to 136.631 people of this sector, in diagnosis, thermotherapy, mechanotherapy, hydrotherapy, physiotherapy, speech therapy (speech and language disorders), audiometry, speech (voice problems) and early stimulation.

[Health Ministry-Gov.Bolivia](#)

○ **BRAZIL**

App uses Libras through technology to connect deaf citizens to public facilities

On September 2017, in celebration of the two dates created to defend the inclusion and guarantee of rights to deaf public, the National Day of the Deaf and World Deaf Day, the *Secretaria Municipal da Pessoa com Deficiência* (a municipal department of São Paulo specialized in people with disabilities) launched SMPED-CIL, a free application for smartphones, tablets and computers that puts the deaf person in direct contact, in real time, with an interpreter of the Brazilian Sign Language, *Libras* as called in Brazil. The app works by video. The citizen makes his request and the *Libras* interpreter translates the request into the Portuguese language directly to an attendant of any public service. To install SMPED-CIL, the user should go to www.l1brasil.com.br and click 'Install on Windows PC'. For smartphones and tablets, there are versions either for Android or iOS. The user makes a simple registration to create login and password.

[App usa Libras para conectar surdos aos serviços públicos](#)

Brazilian Accessibility App wins international award

An application that maps accessible buildings, bars and restaurants was the only Brazilian to join the list of winners of the 2016 World Summit Awards organized by United Nations. *Guia de Rodas* was conceived by the wheelchair user Bruno Mahfuz and his business partners, Bianca Gualdani and João Marcos Barguil. The app was awarded in the "Inclusion and Empowerment" category for being seen as a local creation that has global relevance. The application user needs to fill out a short questionnaire to provide data about a particular location. Relevant information is table height, feasibility of locomotion of a person with some form of disability, existence of ramps and toilets for wheelchair users. The platform is collaborative, so any data inserted in the system can

be consulted by all users of the app. It was launched on February 2016 and has accessibility data from 700 cities in 32 countries. *Guia de Rodas* is available for free for Android and iPhone.

[Brazilian Accessibility App wins international award](#)

○ **CANADA**

New Program Helps Ontario Business Connect with the Right Talent

The Honourable David Onley, Special Advisor to the Government of Ontario's Minister Responsible for Accessibility, the Ontario Chamber of Commerce (The OCC) and the *Discover Ability Network* partners launched a new program and online portal that will connect persons with disabilities seeking employment directly with Ontario businesses looking to meet their talent requirements. The portal is a key feature of *Access Talent: Ontario's Employment Strategy for People with Disabilities*, a comprehensive plan focused on connecting more people with disabilities to rewarding jobs and more employers to new talent to help grow their businesses.

[Global Accessibility News-Ontario Talent](#)

Making digital technologies more accessible to Canadians with disabilities

As a result of a new \$22.3-million program, more Canadians with disabilities will have access to the digital tools they need to fully participate in society and get access to the well-paying jobs of today and tomorrow. The Ministry of Innovation, Science and Economic Development, launched in December 2017 the Accessible Technology Program, a new program that, over the next five years, will co-fund innovative projects to develop new assistive and adaptive digital devices and technologies.

[Accessible Technology Program](#)

○ **COLOMBIA**

Cinema for All Project: enables people with sight, hearing and cognitive disability to enjoy the cinema

Cine Para Todos (Cinema for All), a space for cultural inclusion of Ministry of ICT which enables people with sight, hearing and cognitive disability to enjoy the cinema, has broadcast a free and accessible selection of short films which participated in the Smart Films 2016, a movie festival made with mobile phones. In addition to that, the SmarTIC incluyente which was included for the first time in the recent edition of Smart Films festival counted with the participation of 58 short films carried out by people with sight and hearing disabilities living in different cities across country.

[Cine para Todos](#)

○ **GUYANA**

Guyana to host regional training centre for young people with disabilities

Plans for a Regional Training Centre for young people with disabilities moved a step forward with the signing of an agreement by the implementing parties. Guyana will use Cuba's extensive

experience to assist CARICOM Member States to meet the special education needs associated with disabilities.

[Training Centre for young people with disabilities](#)

○ **PERU**

Job search network for persons with disabilities

In Peru Persons with Disability can find a suitable work through the website Incluyeme.com. Over 1,000 people have already found jobs considering their abilities. The site promotes inclusive companies. Interested persons need to register and provide a profile. There are hundreds of jobs available in the site.

<http://www.incluyeme.com.pe/>

Peru launches tech jobs network for persons with disabilities

The initiative is the result of a collective work produced by San Ignacio de Loyola University (USIL) and CISCO, which partnered to create the network and, therefore, support those with limited access to work opportunities. This online platform will help employers hire persons with disabilities and disadvantaged women and introduce them into their work groups. The initiative is intended to make more people access the services and join the labor market.

[Tech Jobs Network](#)

○ **UNITED STATES OF AMERICA**

FDA takes steps to improve hearing aid accessibility

The U.S. Food and Drug Administration announced important steps to better support consumer access to hearing aids. The agency issued a guidance document explaining that it does not intend to enforce the requirement that individuals 18 and up receive a medical evaluation or sign a waiver prior to purchasing most hearing aids. This guidance is effective immediately. The FDA is also announcing its commitment to consider creating a category of over-the-counter (OTC) hearing aids that could deliver new, innovative and lower-cost products to millions of consumers.

[FDA PressAnnouncements](#)

Improving Accessibility of Aircraft Lavatories and In-Flight Entertainment for Passengers with Disabilities

The ACCESS Advisory Committee of the US Department of Transportation (DOT) announced that has reached an agreement to improve the accessibility of lavatories on single-aisle aircraft and of in-flight entertainment. The agreement is an important step towards ensuring that air travelers with disabilities have equal access to air transportation. The agreement foresees captioning and audio descriptions to be available for most in-flight entertainment.

[Accessibility on single-aisle aircraft](#)

California national parks are becoming more accessible for people who are blind

A partnership between researchers of the University of Hawai'i at Manoa, Google and the American Council of the Blind and the National Park Service to audio describe print brochures at

park sites throughout California. Audio description is the translation of visual media, such as photographs and maps, into acoustic media in an effort to allow the ear to hear what the eye might not be able to see. The UH team already has audio described brochures at 40 National Park Service sites, throughout the country – including at Yellowstone National Park, Hawai'i Volcanoes National Park and the Washington Monument.

[Audio description of park sites in California](#)

New App Uses Smart Tags to Give Better Information and Independence to People who are Blind

Two architects with vision loss today launched WayAround, the smart assistant that gives on-demand details about everyday things for anyone with vision loss. The WayAround system uses custom smart tags plus an app for iOS or Android to provide audio information about items around the home and office. The WayAround app works together with small, inexpensive smart tags that can be placed directly onto everyday items. These innovative WayTags use emerging technology and manufacturing to make them both small and versatile. They are about the size of a quarter, and are available as stickers, magnets, buttons, or clips.

www.wayaround.com

2.3 Mobile Communications Accessibility

○ ARGENTINA

Talk-Louder! A Communicator for the hearing impaired

An application for the Android operating system, which allows the deaf/hard of hearing user to communicate with hearing people. Among the many aspects that TalkLouder! presents are: the selection of pre-packaged and categorised phrases, search phrases according to the context using geolocation, the creation of new categories of sentences, etc. In short it is an innovative application, which is aimed at a specific audience, particularly users with some degree of hearing impairment. **Talk-Louder!** won the 2017 Accessible Mobile Applications Contest, an ITU-SAMSUNG Regional Competition for the Americas, which judged creativity, development and user experience of the app.

<http://sedici.unlp.edu.ar/handle/10915/58933>

An accessory allows people with disabilities to use a smartphone

Mobility Launcher, an accessory developed in Argentina with hardware and software of free code, promises to facilitate the use of a smartphone to people with motor disabilities that today are practically prevented from activating touch screens. The project was conceived and carried out by Leonardo Russo, a developer who already experimented in the field of helping disabled people with Blind Communicator, an app that informs blind people what appears on the smartphone screen. In this case, Mobility Launcher is an accessory that has an LCD screen and a series of buttons which is connected via an USB cable to smartphones and tablets with Android 3.2 or higher that have the USB Host function. Once the connection is established, the smartphone is

handled through the accessory and allows the user to answer and make calls, receive and send messages, listen to music, use a voice recorder, set alarms, manage contacts and surf the web with the Google as a starting point. Russo explained that after his positive experience with Blind Communicator, he decided to continue his help with low-cost solutions. In addition to this software has open source, Russo decided that the hardware also uses Arduino technology and that the casing can be generated into any 3D printer. The developer made available on the web all the necessary drawings, so a technician can build his own Mobility Launcher. According to him, the 3D case can cost 300 pesos and the hardware, about 900.

[An Argentinian created a free app for people with motor impairment](#)

Young entrepreneur created an app for the hearing impaired

Entrepreneur Matteo Salvatto finished his studies in High School with a specialization in electronics and instead of continuing to make robots and rockets, he wanted to create something that would contribute to the community. Being his mom, a Sign Language teacher for the deaf people, he thought about applying the technology to help these people and created "Hablalo", an app that assists people with problems to communicate verbally and with difficulties in hearing. Launched in January 2017, the application already has 10,000 downloads and works in 10 Spanish-speaking countries. However, 18-year-old Salvatto wishes even more and is working to add functionality and improve it as much as possible so that, once that is developed, he can jump on other projects related to disability. The application integrates two main services: one of text-to-speech translation, by which the deaf person writes what he means. For example: "Where is a pharmacy?". That sentence, after the push of a button, is played out loud. Then, when they respond, for example, "its two blocks away," press a button that activates a voice-to-text translation service and that response appears as a sentence at the bottom of the phone's screen, even if the internet is not connected. The app is free and available on Google play.

[Hablalo, app creado para ayudar la comunidad sorda](#)

○ BRAZIL

aBoard: a Cloud Computing Platform for Alternative Communication and Inclusive Education

An application for those with cerebral palsy, autism spectrum disorder, Down syndrome, stroke victims and other similar difficulties. It provides other communication modalities to support or replace verbal communication. It helps to stimulate interactions, improve understanding, perception, attention, memory, conceptualization, language and inclusive literacy, by reducing frustration and increasing self-esteem. **aBoard** won the 2017 Accessible Mobile Applications Contest, an ITU-SAMSUNG Regional Competition for the Americas, which judged creativity, development and user experience of the app.

<http://assistive.cin.ufpe.br/pt>

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[Brazilian Accessibility App wins international award](#)

○ CHILE

The Lazarillo App: Helping those with low sight capacity

The Lazarillo App Company has launched the Lazarillo App which allows people with sight disability to move in an independent way around the city. The creators of this app highlighted that were motivated by the idea of giving blind people or those with low sight capacity a tool which enables them to guide on their own through the city streets, without necessarily needing the help of others. Hence, giving them more independence and confidence to walk across the city.

[Lazarillo Mobile App](#)

○ TRINIDAD & TOBAGO (CTU)

Disabled people in the Caribbean find freedom in technology

The Personal Universal Communicator (PUC) app and its accompanying Internet-based Video Assistance Service (VAS) is a new free app that can serve as the eyes of visually impaired people and enable them to enjoy greater independence – it is part of a new generation of cheaper assistive technologies making their way onto the market which allow people with disabilities to

use technology that was formerly too expensive, but provided them with greater independence. The Caribbean Telecommunications Union (CTU) launched a pilot project under the umbrella of its ICT for People with Disabilities initiative.

[Caribbean360](#)

○ **URUGUAY**

Plan Ceibal develops an app to help deaf people

The Ceibal-LSU Application, which teaches sign language to users, seeks to bridge the gap between the deaf community and the listener, by laying a "backwards bridge" to prevent those with hearing disabilities from striving continuously to be included in a world that hears as highlighted by Mariana Montaldo, Head of Contents Division in Plan Ceibal, an organization which has been responsible for the development of this application. The application, called Ceibal-LSU (Uruguayan Sign Language), has a similar operation to Duolingo App, a platform for electronic devices that teaches languages and whose difficulty is increasing in proportion to the evolution of the user. According to Montaldo, the first thing the user should do is to create an avatar and select a thematic area in which to investigate, such as foods, places, animals or colors, among others. In each of them, the application will show the user a series of videos that demonstrate how words are translated into sign language. At the end of each section, the user must have their knowledge tested. Although the application is aimed at children, it can also be used by teachers or adults who want to learn sign language, Montaldo said. The application, which took eight months of work, is available for download on devices running the Android operating system.

[App uruguaya enseña lengua de señas para la comunidad oyente](#)

2.4 Television/video/movies and programming accessibility

○ **BRAZIL**

Communication channel targeting the public facing hearing or visual disabilities that aims at promoting the democratization of information access

Gama TV is a communication channel targeting the public facing hearing or visual disabilities that aims at promoting the democratization of information access. Work its content using the visual accessibility features to meet the needs and interests of people with disabilities, helping content absorption and understanding, thus acting in favor of social inclusion.

[Gama.tv](#)

Ancine will support distribution of accessible content in Brazilian Cinemas

The Brazilian Movies Regulator, ANCINE (Agencia Nacional de Cinema) has launched a promising program which will support the distribution of accessible content (in portuguese named as *Programa de Apoio à Distribuição de Conteúdo Acessível*) in the 2017 Cinematographic Display Segment. The initiative aims to ensure that small launches contain accessibility features for the audience with visual and hearing impairment. The program will benefit (up to fifteen thousand reais) the domestic companies which distribute national or foreign films with a maximum

occupancy of up to 20 cinema rooms. The value should be used exclusively for the execution of services of subtitling, descriptive subtitling, *Libras* (Brazilian Sign Language) and audio description. This financial support will be used for either national or foreign films to be commercially broadcast until June 30, 2018. Accessibility for people with visual and hearing disabilities in cinemas is provided by the current Federal Constitution in Brazil. According to Brazilian Law, national and foreign films, shown within the country, must have adequate features for the visually and hearing impaired individuals.

[Ancine works for disabled people](#)

2.5 Web accessibility

○ BRAZIL

Movement seeks to improve accessibility in the Internet for PwD

On September 20, 2017 began the movement Web for All that brings together civil society organizations to improve accessibility of the Brazilian internet for people with disability. The basis of the work is a platform that provides tools to evaluate and provide information pages for easy navigation of this population. The portal is also open to receive contributions from users, who can report their experiences while using the network or share successful practices. "The entire portal was built so that we receive contributions from society to make this a living platform" stressed the initiator of the project, Simone Freire.

The movement has the support of entities that work with the research and development of the internet, as the Management Committee of the Internet in Brazil and the World Wide Web Consortium (W3C), institutions that work with people with disabilities-Dorina Nowill Foundation for the Blind and the National Organization for the Blind in Brazil - and other partners as the Roberto Marinho Foundation.

[Agencia Brasil](#)

Festival "VerOuvindo" (See through Hearing) in Pernambuco, Brazil, offered accessible movies

With the aim of promoting accessible communication, widening access to audiovisual works through sessions with audio description and captioning, the VerOuvindo festival comes to its 4th Edition on September 2017. For ten days, the event promotes free views of short and feature films in addition to specific classes, in which participants will have the opportunity to learn techniques to improve vocal quality, prevent changes in voice and optimize performance as audiodescriber, including breathing techniques, MRI, height and intensity vocals.

[Festival "VerOuvindo"](#)

○ CANADA

The Federal Government orders Ottawa to make web sites accessible for the Blind

The federal government ordered to make websites accessible to visually impaired users. Federal Court of Justice Machael Kelen gave the government 15 months to update its websites after a blind Toronto woman said she was unable to apply for a public service job online.

[Accessibility in Canada](#)

○ COSTA RICA

University of Costa Rica is the accrediting body for the development of accessible websites

The International Telecommunications Union (ITU) appointed the UCR Program on Information and Knowledge Society (Prosic) and the Center of Computer Science of the University of Costa Rica, as the accrediting body for the region for accessible digital developments. In this context the ITU requested UCR and the Superintendence of telecommunications (Sutel) to develop a course on digital accessibility in line with the UN Convention on the rights of persons with disabilities (PWD) and the Accessible ICT Policy Model of the ITU-D.

<https://www.elpais.cr/2017/03/09/universidad-de-costa-rica-sera-el-ente-acreditador-de-sitios-web-accesibles/>

○ PARAGUAY

Website of the Paraguayan Judiciary among top 3 in accessibility

According to the studies of Justice of the Americas, the web site of the judiciary of Paraguay is in the top 3 in all of America with regard to the report "accessibility index of legal information on the internet". Only four countries are in the Group conceptualized as "very high" accessibility, according to the report.

[Top 3 among 34 countries](#)

○ UNITED STATES OF AMERICA

Accessibility Training Workshops

Syracuse University seeks to ensure that all people, regardless of individual ability or disability, can effectively access University communications and technology. Information Technology Services (ITS) has organized six training workshops for the Fall 2017, to build faculty and staff awareness of, sensitivity to and proficiency in ensuring the accessibility of information communications and technologies: Creating Accessible Documents in Microsoft Word and Adobe Acrobat Pro; Creating and Delivering Accessible PowerPoint Presentations; Creating Accessible Documents Using InDesign; Creating Accessible Forms; Evaluating your Website for Accessibility; and Video Captioning. ITS offers a growing variety of resources to ensure accessibility for all members of the Syracuse University community. Visit the [Technology Accessibility](#) web page and

check out the [Accessible Technology Toolkit](#). Some Accessibility Training and Tutorials are accessible to public through these links.

[Global Accessibility News-Accessibility Training Workshops](#)

2.6 Accessible ICT public procurement

○ [ITU](#)

Training Capacities on Public Procurement

The International Telecommunication Union (ITU) is the United Nations specialized agency for information and communication technologies (ICTs). ITU has been annually delivering a brief training on Public Procurement of accessible ICT products and services during the Accessible Americas events. On-line trainings to provide the knowledge, understanding and skills required to specify accessibility for persons with disabilities in the public procurement of information and communication technology (ICT) products and services is available in ITU website. One training enable learners to address accessibility during all stages of the public procurement process, and to have a solid understanding of the relevant international standards for accessible ICT – this training is available in English only ([Public Procurement of accessible ICT products and services](#)). Another training developed by UNED on Public Procurement of Accessible ICTs is available in Spanish only ([Accesibilidad TIC en compras públicas](#)).

2.7 Capacity building and other ICT accessibility projects

○ [ARGENTINA](#)

The National Advisory Commission for the integration of persons with disabilities (CONADIS) allocates resources for inclusion projects and initiatives

Through the People with Disabilities Program Coordination Committee, chaired by CONADIS, an exclusive Fund for programmes aiming the inclusion of people with disabilities is available. It seeks to promote different projects that improve the quality of life of persons with disabilities and their families in accordance with the rights established in the Convention on the Rights of Persons with Disabilities (CRPD).

[PwD Programme](#)

Students at UBA developed the Giromouse, a very useful device to improve the quality of life of people with disabilities

Students of the Faculty of Electronic Engineering at the University of Buenos Aires (UBA) developed the Giromouse, a very useful device for people with disabilities. For now, there are prototypes in use and for demonstrations, while they work in an industrial design that also includes wireless. The Giromouse has a movement sensor arranged for one side of the head that takes upward, down and sideways movements and indicates where the mouse pointer should go and another which, placed on an eyebrow (the device is smart) when it is raised the click activates.

It was presented in the Potenciate contest, which is promoted by the government of the City of Buenos Aires and won the first prize in the category Innovation, Science and Technology.

[The Giromouse](#)

○ **CANADA**

Canada tables the Optional Protocol to the UNCRPD

The Government of Canada is taking further action to uphold and safeguard the rights of people with disabilities and further enable their inclusion and full participation in Canadian society. The Optional Protocol would allow individuals in Canada to make a complaint to the United Nations if they believe their rights under the Convention on the Rights of Persons with Disabilities (the Convention) have been violated. Accession to the Optional Protocol would provide added protection by allowing the UN Committee on the Rights of Persons with Disabilities to consider complaints against Canada. The Committee is a specialized committee with expertise in disability issues.

[Global Accessibility News-Optional Protocol to the UNCRPD](#)

○ **COSTA RICA**

Projects open a window to sexuality education for people with disabilities

Two projects aimed at people with disabilities were presented May 2017: the campaign "¡Decímelo a mí!" with content on sexual and reproductive rights in sign language, and the book "Es parte de la vida", a supporting material for teachers and families. Youth with disabilities in Latin America, including Costa Rica, experience deep inequities in access to information on sexual and reproductive health. This disadvantage creates a profound violation of one of their basic rights: access to knowledge relevant to their bodies and their sexualities.

[Sexualidad-PcD](#)

○ **DOMINICAN REPUBLIC**

Training Technological Centres

The Community Technology Centers (CTC) trained 22 people from the municipality of Villa Altagracia as part of the T-Incluye project, which seeks digital inclusion and provide practical solutions through information and communication technologies (ICT) to situations faced by people who have physical, visual, or hearing disabilities, as well as the elderly. In training, which extended 21 hours, participants developed skills in handling Windows, Office and social networks. The course was delivered by a blind expert on applied technology.

[CTC capacita en tecnologías a personas con discapacidad](#)

○ **LATIN AMERICA**

Digital skills for seniors in Latin American countries

Access to digital skills and devices is today a very valuable asset for the senior population. It empowers them to share their opinions, use tools to communicate, search for information and

access services or products that would otherwise not be available. This issue has been recognized in some Latin American countries, where different digital inclusion programs for seniors have been implemented. For example, during the last week of September 2017, Uruguayan Plan Ibrapitá was launched for the second time to provide seniors with access to tablets and digital skills training. Another relevant case is Plan +Simple from Argentina, which similarly generated a lottery for retired seniors to apply for access to digital devices and training (cited in Highlights Section of this document). While using these technologies can certainly be useful for seniors to perform basic tasks such as communicating with their families or browsing for audiovisual contents, there are other more important benefits such as access to medical services. For instance, remote healthcare services might spare seniors the burden of travelling long distances to visit their doctors, enable them to monitor their health status or to receive faster support in case of emergencies.

[Cronica](#)

○ **MEXICO**

Professional training for software developers to create accessible resources

Universidad Nacional Autónoma del México (UNAM) through its faculty of ICT has created a project aimed to offer professional training for software developers with the purpose to make the technological and computer resources accessible for people with hearing, sight or motor disabilities. The project accounts with a lab room which offers courses in which evaluate different courses. According to the responsible for the project, it spreads the awareness of accessibility among ICT workers and hence, will motivate them to produce accessible resources for all.

[ICT Inclusion Project and Innovation Lab](#)

Mexican students design wheelchair which operates through brain signals

Students of the Instituto Tecnológico de Celaya (Itcelaya) designed an interface that sends brain signals to move an electric wheelchair. This project was developed by the students of system and mechatronics. Basically, the system works by means of a "MindWave" diadem that sends brainwaves to an Arduino microcontroller via Bluetooth. This microcontroller develops the movement instructions for electric motors to move the chair. The technology used (Arduino) allows lowering the cost of the system to make it more accessible to the public audience. The prototype of the chair has a cost of approximately 16 thousand pesos, 30 thousand pesos less than a chair that uses the "Joystick" system. At the time of this Report, the project was 80% developed, and the final prototype was to be elaborated to detail the interface and to solve eventual limitations.

[Wheelchair that moves through brain signals](#)

App is created for children with disabilities

A group of researchers from the Instituto Tecnológico de Saltillo developed a very didactic computer app as an alternative tool for the development of psychomotor skills in children with disabilities or motor limitations. The project, called RACEM (abbreviation for the term in Spanish which means Rehabilitation for Coordination, Balance and Movement), was created by scientists

of the Department of Systems and Computation of this institute. RACEM is a PC app designed for children, especially those who have a motor impairment or difficulty in eye-hand coordination. The application that is installed in computers is composed of four modules with simulated scenarios, musical background, instructions and auditory orders that request an action by the user who is expected to respond through the computer mouse. Among the sections offered by RACEM, "Street" is a module which demands precision movements from the user with activities which require coordinating movements of hands, fingers and hand movements with the vision. This procedure has been tested in two multiple care centers for three months in 36 children with motor deficiency problems. Preliminary results showed that 60 percent of infants gained an improvement with their precision movements. 65 percent showed an advance in aspects of laterality. In writing development, 30 percent of the small ones were able to carry out the indicated activities. Also, in spatial location, 45 percent of users met the objectives. At the moment this report was published, the project was in the stage of optimization regarding the app and its image. In the meanwhile, an adaptation is in process for use in mobile devices.

[Crean una aplicación para los niños](#)

○ **PERU**

Capacity building in order to help kids with disabilities in Peru

In August 2017, the Abai Peru Association organized the *First International Conference on ICTs for Basic, Special and Inclusive Education*, in which teachers and families were able to train on the use of technological solutions in the treatment of children and adolescents with various disabilities. The event has brought to Lima the renowned Spanish therapist Fátima Molero, director of the *Asociación Auctimo* that works on autism using technology. Molero said that in Spain the use of technology has made the learning process in people with special needs up to three times faster than using the conventional system. There are many advantages in bringing ICTs closer to this community. The expert said that Tablets, being playful, are attractive for children and adolescents and attract their attention quickly. Another advantage is that the information on the screen comes through three channels: the visual, by seeing; the touch, by touching and the hearing when listening.

[Jornada de Capacitación de las TIC's para el fomento de niños con discapacidades](#)

○ **UNITED STATES OF AMERICA**

U.S. Access Board Issues Standards for Medical Diagnostic Equipment

The US Access Board issued new accessibility Standards for medical diagnostic equipment (MDE). The standards provide design criteria for examination tables and chairs, weight scales, radiological and mammography equipment, and other diagnostic equipment that are accessible to people with disabilities. They include requirements for equipment that requires transfer from mobility aids and address transfer surfaces, support rails, armrests, and other features.

[US Access Board-Medical Equipment](#)

○ URUGUAY

Technology as a guiding tool to improve the life quality of disabled people

The Centro de Referencias en Tecnologías para la Inclusión (CeRTI), a venue which offers technological resources and strategies aimed to improve the life quality of disabled people, has developed its first workshop for accessibility and inclusion in information technology for teachers from any professional background, persons with disabilities and/or their relatives. This workshop aims to show a work proposal in relation to access to literacy, using technology as a guiding tool. [Centro de Referencias en Tecnologías para la Inclusión \(CeRTI\)](#)

3. WHAT IS NEW IN ASSISTIVE TECHNOLOGIES

Many systems showcased at the Consumer Electronics Show in Las Vegas (January 5-8, 2017) are aimed at improving quality of life for persons with disabilities. A few examples are the “prosthetic hand” from BrainRobotics, controlled by signals sent from the residual muscles on an amputee’s limb and a device called MyEye, which can be attached to arms of eyeglasses, developed for people who are blind or have low vision. The device aims to give greater independence to those with trouble seeing: it has a tiny camera and whispers into a user’s ear, and has the ability to read texts and identify people and objects on supermarket shelves. <https://www.cnet.com/news/ces-2017-the-final-word/>

Toronto, ON, Canada: Revolutionary Technology for the Legally Blind

eSight 3 is an engineering breakthrough that allows the legally blind to actually see. eSight houses a high-speed, high-definition camera that captures everything the user is looking at. eSight’s algorithms enhance the video feed and display it on two, OLED screens in front of the user's eyes. Full color video images are clearly seen by the eSight user with unprecedented visual clarity and virtually no lag. The device has full capability to tilt and users can adjust it to the precise position that, for them, presents the best view of the video while maximizing side peripheral vision. This ensures a user’s balance and prevents nausea – common problems with other immersive technologies. <https://www.esighteyewear.com/technology>

One of the products of the Hands Free Institute is the Home Automation HandsFree Kit: an innovative product, of low cost and high efficiency, which helps social and digital inclusion of disabled people. The solution is completely customizable to the needs of the user. Through subtle head movements and/or voice command, the person can control the TV, the light drive, DVD or any other device that can be automated. Thus, gains autonomy for day-to-day activities, without the help of a person to perform them. [Instituto Handsfree](#)

E-Tran Keyboard is currently under development, a virtual keyboard for mobile handsets especially dedicated to people with some motor impairment in their hands, an initiative of "IQ

Solutions", a newly created Paraguayan technology company. The keyboard they develop places a form of employment similar to the cell phones of the nineties and early nineteenth century, in which the alphabet was distributed on the number keys from 0 to 9, in addition to the asterisk and the numeral.

As at the date of this Report, E-Tran Keyboard was a start-up prototype not yet open to the public for terminals with Android operating system, once it was in the development phase in order to collect the experience of potential users. Developers have contacted a number of organizations that support people with various disabilities, potential beneficiaries, to start measuring interaction and optimize the system through feedback.

[E-Tran Keyboard](#)

Mexico - Auxiliary device of mobility for people with visual impairment

At the Instituto Tecnológico de Colima (Itec), which is part of Tecnológico Nacional de México (Tecnm) – the largest technology Institution in Mexico -, an electronic auxiliary device has been designed for the mobility of people with visual impairment. The computer systems professor Ana Claudia Ruiz Tadeo explained that this prototype is a bracelet equipped with a microcontroller and an ultrasonic sensor which emits vibrations and sound alerts to warn the user the distance to which the obstacles are. The prototype is developed with the purpose of solving the difficulties of people with visual disability when joining daily activities. The project called Auxiliary Device in Mobility of the Blind showed up in the eleventh edition of Verano de Jóvenes Investigadores de Itec whose objective is to motivate students in activities within scientific research.

[Diseñan dispositivo auxiliar en movilidad de personas con debilidad visual](#)

Through Braille language, it will be allowed to read text messages and consult social networks

The first smart watch for blind people came to consumers in late March 2017, thanks to the company Dot Inc. Through Braille language, Dot will allow users to read text messages, check social networks out, search for directions in Google Maps, know the time and schedule alarms - everything possible due to a connection via Bluetooth with the user's phone. According to its creator, Korean Eric Kim, the Dot will represent a breakthrough in the field of inclusion once previous technological devices of this type were excessively expensive and therefore not accessible to most people in this situation. This smartwatch will be sold for \$290, which is a big difference with previous tools costing more than \$3,000. The company has already prepared 100,000 watches that will be distributed throughout this year of 2017 and expects sales to be increased by 2018.

[Dot produces the first watch for blind people](#)

COCHLEAR

The Australian company Cochlear has implemented developments on its cochlear implants to improve communication and the living conditions of the hearing impaired people. Even with the advances that cochlear implants have brought to those ones, however, doing basic

activities such as talking on the cell phone, listening to music or having conversations in noisy places is still a challenge. Thanks to Wi-Fi connectivity, new implants can be linked to mobile devices, so a user can talk on a cell phone, even without holding the device in their hands. It can also be connected directly to the TV or music player. The good news is that people with a double implant can reproduce the sound in both ears. The equipment works with batteries that can be rechargeable and provides about 17 hours of use. According to María Piedad Núñez, Cochlear's clinical adviser for Latin America region, the implants are high technology devices with a discreet and practical design that fits the needs of each person.

[Hearing impaired people will be able to talk on mobile phones](#)

New Wearable Low-Vision Technology at an Affordable Price

Enhanced Vision introduces [Jordy](#), the latest in wearable low-vision technology that will revolutionize how those with low vision perform everyday tasks, such as reading mail, paying bills, watching TV and playing cards. Jordy helps individuals who are blind or have low vision regain their visual independence and reclaim their lives. Worn like a pair of glasses, Jordy features a sleek, modern design that appeals to all ages. This innovative system allows wearers to see near and far, as well as to read, write and see in any environment, including home, work, and school.

Weighing in at a mere 8 ounces, the Jordy headset is lightweight and portable. An adjustable nosepiece makes Jordy comfortable. Jordy is battery-operated and uses rechargeable batteries, providing the ultimate in convenience. Packed with features such as HD autofocus camera for distance, intermediate and near viewing; Jordy gives the wearer ultimate control over their visual experience. Other features include 10x optical zoom and 4x digital zoom, dual viewfinders with a wide field of view, and 5-level brightness control. The optional docking stand converts Jordy into a desktop electronic magnifier (CCTV) that features a 24" high-resolution monitor, an HD autofocus camera and 5.5x to 66x magnification. Users enjoy simple, easy-to-use tactile controls, multiple viewing modes to optimize brightness and contrast, and built-in LED lighting. Jordy even comes with a low-profile protective carrying case.

[Global Accessibility News-Jordy](#)

Google Glass app helps children with disabilities with social interactions

A prototype Google Glass app can recognize conversational prompts and provide the user with suitable responses in return. Moreover, children find it easy to operate and enjoy using it. ASD is a life-long condition that affects 1 in 68 people. A defining feature of ASD is difficulties with social communication — which can include initiating and maintaining conversations with others. “We developed software for a wearable system that helps coach children with autism in everyday social interactions,” says Azadeh Kushki, an Assistant Professor at the Institute of Biomaterials and Biomedical Engineering at the University of Toronto, and Scientist at the Bloorview Research Institute, Toronto, Canada. “In this study, we show that children are able to use this new technology and they enjoy interacting with it.” “The interesting thing about our new technology is that we are not trying to replace human-to-human interactions; instead, we

use this app to coach children who are communicating with people in real-world situations,” explains Professor Kushki. “Children can practice their skills outside of their normal therapy sessions and it can provide them with increased independence in everyday interactions.”

[Global Accessibility News-Google Glass](#)

Google’s Chrome OS to soon get dictation as an accessibility feature

Google’s Chrome OS will soon get support for dictation as an accessibility feature. Currently the only way you can enable this is through extensions. Google Docs supports this feature on all platforms including Chrome OS. On Chromebooks with Google Play Store support, there could be some Android apps as well. However, with this new feature, dictation will become a built-in feature for Chrome OS. A code change request which indicates that Google’s web-based operating system will soon get support for system-level dictation. System-level dictation will be brought to Chrome OS as an accessibility feature.

[Chrome OS as an accessibility feature](#)

IBM - Technology Equality for People with Disabilities

IBM has already published a unified accessibility checklist and techniques in the public domain covering software, documentation and web content. According to IBM, they are one of the first to combine guidance for the Revised 508 Standards with the EN 301 549 standard in Europe, and the Web Content Accessibility Guidelines 2.0. The new checklist complements other IBM tools and open source that build on accessibility standards, such as the [Dynamic Assessment Plug-In](#) and the [Verified Accessibility Samples](#) (Va11yS). IBM mission is to “[enable our products and services to be accessible](#) and [develop new assistive technologies](#) to help people of all abilities navigate the physical and online worlds. With technology emerging at an unprecedented pace we have an opportunity to leverage artificial intelligence, mobile, and the Internet of things (IoT) to supplement or enhance our human abilities in ways not possible before”.

[Accessibility checklist](#)

Microsoft releases iPhone app that narrates the world for people who are blind

Microsoft has released a new **Seeing AI** app for iPhone that uses computer vision to describe the world for people who are blind or have low vision. With the app downloaded, the users can point their phone’s camera at a person and it’ll say who they are and how they’re feeling. They can also point it at a product and it’ll tell them what it is. All of this is done using artificial intelligence that runs locally on their phone. Microsoft’s new iPhone app is available to [download](#) in six countries, including the United States, Canada, India, Hong Kong, New Zealand, and Singapore.

[Seeing AI](#)

4. **HIGHLIGHTS**

Co-winner of the Nobel Peace Prize, **Handicap International** supports people with disabilities and other vulnerable populations living in conflict and disaster zones and in situations of exclusion and extreme poverty.

In low-income countries, people with disabilities are often denied access to education, training opportunities, and loans, making it impossible for them to earn a living. This condemns people with disabilities and their families to a perpetuating cycle of poverty.

Handicap International promotes the inclusion of people with disabilities in decent, income-generating employment to break the cycle of poverty, contribute to the overall development of a country, and boost the dignity and independence of people with disabilities. The organization and its partners take a variety of approaches to helping people with disabilities earn a living.

<http://www.handicap-international.us/>

International Certification of Accessibility Consultants for the Built Environment launched by GAATES

The [Global Alliance on Accessible Technologies and Environments \(GAATES\)](#), recognized as an international leader in the field of accessibility, is pleased to announce its public launch of the *International Certification of Accessibility Consultants – Built Environment* (ICAC-BE) program. Significant time and contributions from recognized global industry leaders has resulted in the development of the first ever international-level certification program for built environment accessibility experts.

The lack of a certification program has allowed people with little or no training or expertise to present themselves as accessibility experts. This has led to uneven and sometimes inadequate costly design solutions.

[International Certification of Accessibility Consultants – Built Environment \(ICAC-BE\) program](#)

Kessler Foundation

A major nonprofit organization in the field of disability- is a global leader in rehabilitation research that seeks to improve cognition, mobility, and long-term outcomes -- including employment -- for people with neurological disabilities caused by diseases and injuries of the brain and spinal cord. Kessler Foundation leads the nation in funding innovative programs that expand opportunities for employment for people with disabilities.

<http://www.KesslerFoundation.org>

Escola de Gente, a Brazilian NGO (Non-governmental organization) holds a number of projects and initiatives that aim at making more inclusive and sustainable societies. This entity since 2002 has touched over 410.000 persons from 16 countries in the Americas, Africa, Oceania and Europe for an inclusive and sustainable development. It defends a set of principles, reflections and content aligned with the Convention on the Rights of Persons with Disabilities (CRPD).

<http://www.escoladegente.org.br/escola-de-gente/>

Microsoft's Project Torino helps children with vision disabilities participate in coding classes. Microsoft's Research division has introduced Project Torino, a unique physical programming language meant to help children with vision disabilities learn to code. The system is designed to make sure that kids who have vision disabilities can participate in coding classes along with all their classmates. The ultimate goal is even more ambitious: To get more kids with vision disabilities, such as dyslexia or autism, on the path to becoming software engineers and computer scientists. The system is also designed to grow with kids. Once they have mastered the physical programming language - an app was created that allows kids to transfer the coding they have done with the physical system into text-based code, and then use other assistive technologies to continue coding. A project like this can serve two goals: Technology companies say they are struggling with a "digital skills gap" that is leaving them without enough engineers and coders to meet their needs, and experts say it can be difficult for visually impaired people to find meaningful, accessible career paths. [Microsoft-Torino Project](#)

W3C releases new video introducing Web Accessibility and W3C Standards

The W3C Web Accessibility Initiative (WAI) has released a video introducing Web Accessibility and W3C Standards. The four-minute video highlights why accessibility is the right thing to do, how it is essential for people with disabilities and useful for all. It was published as part of an [accessibility project](#) the Internet Society (ISOC) is working on to realize their vision: "The Internet is for Everyone". It is also timed in recognition of the United Nation's annual International Day of Persons with Disabilities on 3 December. [video introducing Web Accessibility and W3C Standards](#)

Project **remar** – **Mercosur Network for Accessibility and Collaborative Creation of Open Educational Resources** - the main expected result **remar** action is to increase awareness of teachers towards accessibility and to build their capacity to create in a collaborative manner Accessible Open Educational Resources, semantically annotate them and reuse them from institutional repositories. Its first concern is with inclusive education and they prefer to approach the topic from the conception of Universal Design, considering that the ultimate goal is to ensure access to suitable educational content for **All**. [Project remar](#)

EuTeGuio is a platform to be used in tablets and mobile phones to help the autistic children in their daily routine, helping them to develop autonomy. This technology was chosen due to the ease of handling reported in interviews with parents who reported that for autistic children it is easier to use touchscreen than keyboard and mouse. Their parents can organize their routine with flexibility and may include images, pictures of their own daily life or videos with instructions of the activities to be carried out. Even being planned to be used by autistic children, **EuTeGuio** can also be used by non-autistic children, providing scalability in its use. [EuTeGuio](#)

The **Institute HandsFree of Assistive Technology** is a Brazilian non-profit organization that was born from the will of its founders in helping people with severe physical disabilities to become more valued by society. Founded in 2015, the Institute works in the development, support and dissemination of assistive technologies, innovative designs, high quality and low cost to the consumer and operates in 4 pillars: (i) Provide autonomy to a person with a disability to perform daily activities; (ii) Promote social, digital and professional inclusion; (iii) Offer opportunities for personal and professional growth; and (iv) Empower and develop people with disabilities.

[Instituto Handsfree](#)

Microsoft's Windows 10 brings important accessibility improvements for users with disability

Some important accessibility improvements have been released in the last Windows 10 Anniversary Update for Microsoft users with disabilities. The last version of Windows 10 includes improvements to the screen reading experience on Narrator, accessibility in Microsoft Edge, Mail and the Start menu, and tools for developers to build accessible apps and experiences. According to Microsoft, it represents a significant step forward in their effort to make Microsoft products accessible. Another Microsoft resource which has been enabling greater digital inclusion is Office 365. Considerable number of updates have been releasing in Office 365 allowing anyone to create more accessible content from a variety of devices and design experiences that allow people of all abilities to be productive on every device.

[Windows 10 Anniversary Update](#)

Project DANE: teaching technology for for children and youth with disability

Project DANE is an initiative that was born in Argentina, to offer a new way of teaching content to children and young people with intellectual disabilities has been outstanding in the world for its applications. One of the reasons why the DANE Project stands out at the global level, according to Pablo Fiuza, general coordinator, is that "although there are several applications designed for children with intellectual disabilities, none of them is a global project as is the case of DANE which contemplates to carry out activities designed to learn, to play, to be included in the labor market, to therapies, and to follow a line of development.

[DANE Project](#)

Tactile Team of MIT: A team entirely composed by six girls, undergraduate seniors of the Massachusetts Institute of Technology (MIT) has developed the first portable real-time text to Braille converter. The "Tactile" device aims to provide reading autonomy to deaf-blind persons – helping them to increase access to printed text around them at a very affordable price. The team is already working on a fifth prototype, where a camera and a refreshable braille display are fully integrated. The size of the braille cell of this last version has shrunk down to 4 times in comparison with the first and this remarkable Team of girls is continuing to scale down the cells and improving text recognition system.

[Team Tactile](#)

Colombian Company designs app for people with visual impairment

Connection Marketing is a Colombian company dedicated to the development and implementation of technologies that simplify the relationship between users and brands. The most recent Connection Marketing's project, Zona Connect, seeks to enable users to get closer to diverse facilities and access their services through Bluetooth technology in an easy, fast and effective way. This technology (created by Nokia and released by Apple worldwide) facilitates communication for people with visual impairment, in places (shopping centers, fairs, etc.) where it is not easy to walk around and enjoy the different experiences they offer. In these places that do not have mechanisms of reading with Braille system for people with visual disability, so technological tools like Zone Connect are quite useful.

[Empresa colombiana diseña app para personas con discapacidad visual](#)

Mexican creates a cap which helps people with paralysis to move objects using their minds

Christian Peñaloza, a Mexican scientist, has created a system to help people with paralysis to move devices with their minds. His education background includes an impressive international career: he stayed in Japan for some time to study a master in neuroscience and robotics and concluded his doctorate as well. There, he began to develop a system that includes a cap with sensors which detects the signals of the brain when used by a patient; a computer that interprets signals and executes commands and sensors in the devices that the patient needs to control. This system helps people with motor paralysis to do simple tasks such as turning on the light or heating in their homes using the mind. Currently, Christian lives in Tijuana where he opened a company called Mirai Innovation. In Mexico, his team is perfecting the technology that Christian initially developed in Asia. There, the validation of their project was very expensive and difficult to use, so they are looking for a cheaper way in order to bring it to Mexico.

[Mexicano crea una gorra que ayuda a las personas con parálisis a mover aparatos con la mente](#)

Samsung projects stand out for helping visually impaired people and remotely controlling a computer

On February 2017, Samsung took part in the last Mobile World Congress (MWC) presenting a virtual and augmented reality project that stand out for helping visually impaired people to control remotely a computer. During the fair held in Barcelona, Samsung showed *Relúmino* to the world, an application for virtual reality glasses Gear VR that allows blind or visually impaired people to read books or watch television with new levels of clarity. It is able to reallocate blind spots by moving images according to his specifications. This app has been developed by C-Lab, an internal venture incubation program that encourages a creative corporate culture and nurtures innovative ideas from Samsung employees.

[Relúmino, a visual aid application](#)

VODAFONE

Also on February 2017, in the same Mobile World Congress (MWC), the Vodafone Spain Foundation, which has been seeking to improve quality of life of disabled people, presented some important technological tools for this group. They include mobile applications, telecare solutions or games accessible to users with visual impairment, among others.

Regarding the app for the disabled people, the mobile application EVA Facial Mouse stood out in the last edition of the MWC. It is a tool that allows people with disabilities to access the touchpad by tracking the face, which works as a computer mouse and whose movements are controlled from the camera of the device. In addition to that, the Foundation also showed at the mobile conference the Bocciapp application, which recreates the *bocce* popular sport and can be used either by touching the touchscreen or pushbuttons, which makes it suitable for people with cerebral palsy and disability physical.

Among the proposals presented, the Telesistencia Móvil Accesible project, developed by the Fundación de Tecnologías Sociales (TECSOS) with the support of the Red Cross and the Vodafone Spain Foundation, brings teleassistance to people with hearing, visual or physical disabilities, making it universal and compatible with support products such as screen readers and push buttons.

In the section of games, among the news the Foundation presented in this edition of the MWC was the initiative "Brain Training ONCE-Vodafone", which includes a set of games accessible to people with severe visual difficulties and thanks to which the users will be able to train their mind in areas like memory or calculation. [Vodafone invests on app for disabled people](#)

Inclusion of persons with disabilities in disaster risk management (DRM)

Natural hazard events can occur in any country, at any time. At the same time, North America and the Caribbean region are responding to some of the strongest hurricanes on record. At such times of peril, individual and community resilience is at a premium, and we cannot afford to miss opportunities to bolster that resilience wherever possible. This is especially true with respect to certain groups – such as persons with disabilities – who have historically been disproportionately affected by natural hazards. On August 30 2017, a group of experts met at the World Bank in Washington, D.C., to discuss the inclusion of persons with disabilities in disaster risk management (DRM). This consultation was the first of its kind for the [Global Facility for Disaster Reduction and Recovery](#) (GFDRR). Led by the [Disability Stakeholder Group](#), the impact and influence of bringing together hundreds of persons with disabilities, and representatives disability organizations worldwide resulted in the [Sendai Framework for Disaster Risk Reduction](#) leading as the most disability-inclusive international mainstream framework, which clearly sets out how implementers operationalize disability issues. The World Bank Group, through the [Global Facility for Disaster Reduction and Recovery](#) (GFDRR), is committed to supporting country implementation of the [Sendai Framework for Disaster Risk Reduction](#). The rich discussion has provided a clear outline for the development of a report on disability-inclusive DRM as we shape the recommendations and actions for including persons with disabilities in the World Bank and GFDRR's disaster risk management investments.

[Global Facility for Disaster Reduction and Recovery](#)

AccorHotels introduces new initiatives to promote accessibility

Group employees are taking action to map the accessibility of their hotels and local businesses on the “Jaccede” app. The challenge takes the form of an international competition pitting seven teams against one another in the main regions around the world where the Group operates, in order to strengthen a sense of collaboration and promote diversity. Both a website and a mobile app, Jaccede is a collaborative platform on which people can review the accessibility of the places they visit to enable people with mobility disabilities to identify the places that meet their needs. More than 100 000 sites globally, including hotels, restaurants, bakeries, pharmacies, etc., are already listed on the app. [Jaccede](#)

Bachelor’s degree program in American Sign Language

For the first time, Framingham State University (FSU) will be launching a four-year bachelor’s degree program in American Sign Language (ASL), designed to meet the growing demand for ASL interpreters in the Commonwealth. With the launch of this new program, students will be able to enroll at FSU as freshman with no prior experience in ASL. Student who do possess ASL skills prior to enrolling will be evaluated for a determination of placement in courses suited to their level. Students can also transfer into the program with an associate’s degree in Deaf Studies.

<http://www.framingham.edu/asl>

MOVISTAR+ 5S

Movistar+ 5S is an application for smartphone or tablet that allows people with visual or hearing disabilities to enjoy a selection of film and series of Movistar +, while playing the movie or series on television, computer or console. Movistar + 5S has 3 sets of accessibility: language of signs, audio and subtitles adapted for the deaf. You can enjoy them directly on your TV or through mobile devices, such as tablets and smartphones, through the official app 5S, available for iOS and Android.

[Movistar+ 5S](#)

New devices launched in Argentina to boost ICT accessibility for seniors

The EXO computer manufacturing firm with the support of Microsoft and Intel, launched the “TecnologíaFácil” line of technology devices to boost digital inclusion of seniors in Argentina. The new line of products includes different devices such as a Mobile Diagnostic Center, a Smart Wristband, a smartphone, tablet, pc, notebook and All in One with user-oriented interfaces. The launch of these devices represents the beginning of a program called “Mi CompuFácil,” through which more services for seniors will continue to be designed. While the line of products is currently being offered only by the private sector, the official release counted with the support of diverse organizations that strive for digital inclusion of seniors, such as Fleni, Fundación Ineco, IPS and ANSES. Further support was provided by the current government’s +Simple program that consists in providing training for elders to use ICTs.

By incorporating devices designed for seniors into the market, more opportunities will likely continue to open as the private sector finds profitability and both governments and civil organizations can get hold of more accessible technologies to improve their programs.

[El Comercio](#)

The Trust for the Americas is a non-profit organization affiliated with the Organization of American States (OAS). Established in 1997 to promote public and private partnerships, The Trust has implemented projects in 24 countries, and worked with over 500 organizations in the region. Their mission is to promote partnerships for social and economic inclusion in Latin America and the Caribbean. The Trust for the Americas, under the **Social Franchise POETA**, operates programs and implements specific projects. Their model of development in their network of centers, leveraging and maximizing the potential and capacities of the persons, using the comprehensive set of tools and innovative knowledge, organized, updated, created or collected by THE TRUST to empower organizations of persons with and without disabilities, and thereby achieve better social, educational and economic inclusion. Their technological centers are equipped with ICT resources that empower participants in an active and comprehensive way and are operated by local partners of the Social Franchise POETA. The centers are characterized as a place of meeting, learning and communication, with access, use and appropriation of ICTs, of the labor or entrepreneurship environment and human development, respecting the characteristics of each person, providing tools for strengthening and management, to improve the quality of life of populations in vulnerability.

<http://fsp.trustfortheamericas.org/es/programas-y-proyectos>

5. FOOD FOR THOUGHTS

In addition to the richness and diversity of the native cultures and languages that fortunately still prevail in the countries of the region, several have the same official language, either English, French, Portuguese or Spanish. Pursuing a common effort for the integration of the American countries should not be seen as impossible - but a challenge that everyone must assume, on the basis of a conception which exceed the purely economic view and affirm the solidarity and human dimension. The potential deriving from the wealth which means the ethnic and cultural diversity of the Americas region are immeasurable, and sharing a common historical and social background, we can surely join forces to promote ICT accessibility and to make our region a more inclusive society.

The good practices identified in this document are to share and serve as a source of inspiration for the implementation of initiatives or actions and promote the social inclusion of the PcD.

The role of each part is important and first of all, governments should set an example and act as a catalyst to unite the efforts of all towards a greater objective. The social and economic integration of PwD should not be just seen as a goal to be achieved to repair a social injustice always present in our societies, but it must be desired by the great potential that PwD have and the contribution they may give in benefit of the society, as from the moment they feel integrated, participative, and able to develop their full potential.

To do so, we have to work to move forward on important issues such as (i) have accessible web sites so EVERYONE can access the available services; (ii) having accessible media and social networks; (iii) increase collaboration between public, private sectors and society for the implementation of actions and replicate the good practices; (iv) stimulate the effective collaboration of academic institutions considering their efficiency in the formation of citizens and its efficacy in the diffusion of innovative ideas; (v) encourage ICT manufacturers and service providers, showing how crucial their work is for the development of accessible devices and services driving innovation in these fields; (vi) to sensitize society on the barriers and challenges faced by PwD; (vii) promote recognition and awards as a means to promote the importance of accessibility and equal rights for ALL; (viii) encourage the development of accessible audiovisual content; and (ix) stimulate the active participation of the PwD and representative groups.

From the participants to the events held in Brazil, Colombia, Mexico and Costa Rica we have collected some comments that highlight the importance of:

- Identify in the countries resources for the implementation of concrete actions – The funds from the Telecommunication Universal Services should be used for projects and initiatives in accessibility and social inclusion;
- Promote the partnership between public, public-private and private-private institutions for the achievement of accessibility and digital and social inclusion goals;
- Share and replicate the good practices;
- Empower end users in the use of accessibility features;
- Consider ICT as a tool for education and employment as well as a facilitator for economic and social development and independent living;
- Think of accessibility as an ecosystem where we all participate and bring our contribution to make it reality;
- Promote collaboration between the actors (Governments, operators, manufacturers, academic institutions) and always consider the active participation of people with disabilities;
- Consider disability as a social condition rather than a medical one to promote accessibility and achieve an inclusive society;
- Encourage delegations to include one PwD or a person working in a NGO for PwD in the next Accessible Americas events.

6. CONTRIBUTIONS TO THIS DOCUMENT

The ITU has made available the americas.accessible@itu.int mail to receive contributions of good practices and achievements in the region. Contributions received will be evaluated and if relevant will be included in future editions of this document, in order to facilitate its exchange and dissemination. As a minimum, the contributions must contain:

- Indication of the country and area of ICT accessibility that you refer to in accordance with the sections of this document;
- A blurb (5 to 7 lines) describing your contribution;
- Web link related to your contribution for more information.

7. **OTHER AVAILABLE RESOURCES DEVELOPED BY ITU**

7.1. The following documents, tools, strategies and guidelines are available to assist countries to promote the implementation of telecommunications and ICT accessibility policies:

- I. **Model ICT Accessibility Policy Report** (Arabic, Chinese, English, French, Russian, Spanish)
e-book version: - Accessibility Report in PDF checked and edited by BarrierBreak
<http://www.itu.int/en/ITU-D/Digital-Inclusion/Persons-with-Disabilities/Documents/ICT%20Accessibility%20Policy%20Report.pdf>
- II. **Making mobile phones and services accessible**
<http://www.itu.int/en/ITU-D/Digital-Inclusion/Persons-with-Disabilities/Pages/Persons-with-Disabilities.aspx>
- III. **Making TV Accessible**
<http://www.itu.int/en/ITU-D/Digital-Inclusion/Persons-with-Disabilities/Pages/Persons-with-Disabilities.aspx>
- IV. **Online training for Public Procurement Products and Services (available through ITU Academy)**
<https://www.google.com/url?q=http://www.itu.int/en/ITU-D/Regional-Presence/Europe/Pages/Events/2015/OnlineTraining/OnlinetrainingonPublicProcurementofaccessibleICTproductsandservices.aspx&sa=U&ved=0ahUKEwi-wq38sOTQAhUJwiYKHazED7UQFggEMAA&client=internal-uds-cse&usg=AFQjCNFDW-rOByBMMfatHnc6U3aDSCuVqQ>
- V. **ITU G3ict: e-Accessibility Policy Toolkit for PwD**
<http://www.e-accessibilitytoolkit.org/>

7.2. Available training courses and workshop

The ITU has developed an online course “**Online Training on Public Procurement of Accessible ICT Products and Services.**” This e-learning training aims to provide learners with the knowledge, understanding and skills required to specify accessibility for PwD in the public procurement of information and communication technology (ICT) products and services. The training will enable learners to address accessibility issues during all stages of the public procurement process, and will provide learners with a solid understanding of the relevant international standards for accessible ICT.

<http://www.itu.int/en/ITU-D/Regional-Presence/Europe/Pages/Events/2016/PPOT/PublicProcurement.aspx>

The ITU has developed a 4 days “Training Course on Web Accessibility” based on the Web Content Accessibility Guidelines (WCAG 2.0) and the ICT Accessibility Policy Model published by ITU Development Bureau (BDT). This training course is aimed for regulators, developers, designers, digital content creators as well as anyone interested in implementing digital inclusion projects within any organization or in a website. The training focuses on two fundamental aspects of

digital accessibility: the definition of what is web accessibility and, the creation of capabilities for developing and designing accessible websites.

7.3. Other sources on accessibility for enabling an inclusive society

7.3.1 Accessibility Resolutions

- ✓ ITU-Plenipotentiary Conference RESOLUTION 175 (Rev. Busan, 2014)
- ✓ PP14 Resolution 144 Busan
- ✓ ITU-T Resolution 70 Telecommunication/information and communication technology accessibility for PwD
- ✓ ITU-D RESOLUTION 58 (Rev. Dubai, 2014)
- ✓ ITU- R Resolution 67 Geneva 2015 of RA, Recommendation ITU-R M.1076 - Wireless communication systems for persons with impaired hearing

7.3.2 Accessibility terms and definitions

- ✓ ITU-T F.791: Accessibility terms and definitions

7.3.3 Guidelines

- ✓ Accessibility guidelines: ITU-T Recommendation F.790
Telecommunications accessibility guidelines for older persons and PwD
- ✓ Guidelines for supporting remote participation in meetings for all - technical paper
ITU-T 2015 FSTP-ACC-RemPart: Guidelines for supporting remote participation in meetings for all
- ✓ Guidelines for accessible meetings - technical paper
ITU-T 2015 FSTP-AM - Guidelines for accessible meetings

7.3.4 Useful links

- ITU-D:
<http://www.itu.int/en/ITU-D/Digital-Inclusion/Persons-with-Disabilities/Pages/Persons-with-Disabilities.aspx>
- ITU-T:
<http://www.itu.int/en/ITU-T/accessibility/Pages/default.aspx>
<http://www.itu.int/en/ITU-T/studygroups/com16/accessibility/Pages/default.aspx>