NAFATH

WELCOME TO HUKOOMI PORTAL FOR PERSONS WITH DISABILITIES

Hukoomi Portal for Persons with Disabilities

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Qatar Assistive Technology Center "Mada"

Qatar Assistive Technology Center "Mada" is a private institution for public benefit, which was founded in 2010 as an initiative that aims at promoting digital inclusion and building a technology-based community that meet the needs of persons with disabilities (PWDs) and the elderly in Qatar. The center also works to implement international best practices in the field of assistive technology (AT), and develop a sustainable model for the provision of AT and digital inclusion services for PWDs in the State of Qatar.

Our Vision
All Persons with a Disabilities in Qatar reaching their full potential through Information and Communication Technology.

Our Mission
Unlock the potential of all Persons with Disabilities in Qatar by enabling both individuals and their environment through Information and Communication Technology.

Mada Center serves persons with all types of disabilities including visual, mental, hearing, physical, learning disabilities and various types of disorders along with the elderly and their families.

Mada prioritizes three key areas; education, employment and community. The center also provides advisory services and policy recommendations to various stakeholders and organizations.

We are committed to promote innovation and the development of new solutions for persons with disabilities, particularly by creating relevant Arabic Language Assistive Technologies, to better serve local and regional needs. We work closely with important AT manufacturers and relevant worldwide private sector entities to develop innovative Assistive Technology solutions and services. Our organization also conducts relevant research studies to keep Qatar and the Arab region updated on the latest breakthroughs and international best practices.

"Nafath" is a quarterly publication issued by Mada Center to be a major source of information on the latest trends and innovations in the field of assistive technology. Our quarterly publication is an information platform and also a discovery tool: we want to bring together the huge domestic and regional appetite for Arabic Assistive Technology products and services with the latest technologies and trends in the whole world.

Like everything we do, we highly appreciate and encourage your contributions and feedback, as readers' opinion is most valuable to us. This periodical is available in print and digital forms, as well as other accessible formats upon request. ∎

mada Team

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NAFATH

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mada assistive technology center

Mada Innovation Program Presents:

TextHelp Read&Write Arabic

Improving Arabic Literacy & Fluency for Every Learner
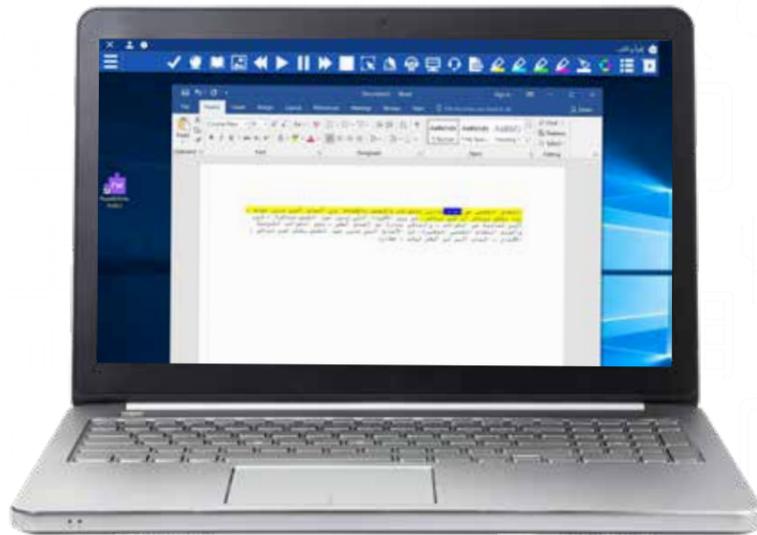
As part of its effort to expand the range of Arabic Assistive Technology (AT) to support the education sector in Qatar and the Arab Region, Mada has actively focused on bringing new Arabic AT to the market. Designed and tested alongside with Mada's expertise through the Mada Innovation Program, Read&Write Arabic is a dedicated Arabic language assistive technology that offers all learners the opportunity to reach their full reading and writing potential. TextHelp Read&Write Arabic was showcased in the Innovation Zone and was further featured through a dedicated session in the Innovation Theater during the GREAT Conference 2018.

What is Read&Write?
Already available in English and other various languages, Read&Write is an innovative and intuitive software toolbar that integrates seamlessly across multiple platforms such as Windows, Mac, Chromebook and iPad. It is widely used around the world within classrooms and relevant teaching environments. Developed to help everyone understand and be understood, it provides a wealth of accessible and easy-to-use tools that help improve literacy and fluency at every level and for every student.

Traditionally viewed as a tool for students with specific individual learning needs, Read&Write now offers a comprehensive set of tools for all learners and all learning styles - from those who perhaps struggle with reading and writing to gifted students that require a challenge in the classroom. Now with dedicated Arabic language support, Read&Write can truly enable all Arabic learners in Qatar and the Arab Region to achieve their full potential.

Why Read&Write?
Offering useful features such as text to speech, text and picture dictionaries, study tools and more, Read&Write has been built with Universal Design for Learning (UDL) in mind, to aid in each step of the learning process. Built on a solid understanding of how to improve literacy, fluency and understanding, Read&Write has proven its impact in schools, colleges and universities the world over.

Read&Write Arabic includes the following core features that can be effectively used by schools to improve study and research skills:

Text-to-speech
Rigorously tested in partnership with MADA, Read&Write's Arabic natural-sounding voice capabilities allow words and sentences - both online and in documents - to be read aloud in order to improve student reading, comprehension and engagement. This fosters a confidence in independent study and gives learners a flexible tool to slow down, speed up or select exactly what they need in order to better understand any given subject.

Text & Picture Dictionaries
With accurate and culturally appropriate text and picture dictionaries included within Read&Write, students have a quick and versatile way of accessing definitions both visually and literally. If a learner is unsure of a word's meaning or how that word translates into a different language or cultural context, Read&Write offers a powerful solution that's both accessible and extensive.

Highlighting & Note-taking
A simple but effective independent study feature, the built-in highlighter and note-taking tools allow students to draw out key passages and excerpts from web pages and documents with a simple click of a mouse. They can then turn these into one-page revision guides, encouraging revision and progression. The simple Voicenote function helps students give and receive feedback and model pronunciation through the user-friendly Read&Write toolbar.

Audiomaker
Complementing the powerful features mentioned above is the audiomaker tool, which gives students the ability to turn words on the screen, homework assignments or study notes into an audio file to listen to on the go. With assistance, this is especially useful for users who have vision impairments.

Translator
The Read&Write translator tool provides single word and paragraph translations to allow students whose native language is Arabic to get quick translations to English right when they need it. It's a key support tool to build and enhance vocabulary - essential to the development of core language skills and knowledge.

Read&Write Impact
Read&Write has been shown to increase fundamental learning skills like comprehension, vocabulary and correct word sequences - all essential steps to increasing literacy and fluency levels. Read&Write Arabic is available with English language support by default. This will allow its users to acquire literacy and fluency in both languages, and consequently serve the language needs of the diverse bilingual community in the Arab region.

Building vocabulary alongside oral and written fluency is key to achieving successful learning outcomes. Read&Write's flexible features help students in the language they need it in. Students in bilingual settings are often 'translanguaging' - moving between both languages as they search out the words they need or want to understand. Having a set of tools always available in multiple languages is crucial to support their learning needs.

The availability of Read&Write Arabic will enhance the quality of classroom support for students with learning difficulties by offering the wide range of features in bilingual format. Learning difficulties facing PWDs and others prevents them from achieving successful education. Consequently, solutions like Read&Write Arabic will serve as an essential foundation to support the needs of such students. ∎

Importance of Accessible Gaming for People with Disabilities

Mada releases the International Best Practices Guide on Accessible Gaming

As part of Mada's efforts to improve social integration and education, Mada conducted a specialized best practice report on accessible gaming for people with disabilities focusing on ways to increase the availability of localized accessible games. In recent years, gaming has become increasingly prevalent with the advent of mobile gaming, gamification in workplace and a greater uptake of augmented reality technology by people of all ages. Gaming is no longer limited to a niche segment of teenagers and children, games today can be seen in multiple settings being used by a multitude of different audiences. Accessibility to the gaming space is no longer a luxury, it is a necessary component of creating an inclusive digital ecosystem. Gaming today is part and parcel of what is referred to as digital content, and, as such, is enshrined in the United Nations Convention on the Rights of Persons with Disabilities.

Accessible gaming also offers massive return on investments for game developers and designers. The global gamification market is expected to surpass 5.5 billion USD by the end of 2018. Gamification refers to the application of typical elements of game playing such as point scoring, competition with others, or collecting rewards to other areas of activity, typically in education, healthcare, productivity and marketing. With people with functional limitations making up a minimum 15% of the world's population, the market for disabled gamers is huge.

When it comes to people with functional limitations, there is an even further added element to gamification – and that is the use of games within a rehabilitation setting. In conjunction with international accessible gaming experts, Mada Assistive Technology Center initiated efforts to raise awareness about how gaming can be made more inclusive for people with different disabilities. Amongst these efforts is providing training for game developers on how to develop accessible digital games based on best practices and international standards. Mada recently released a comprehensive best practices guide around this subject, which has been published on Mada website. The documentation is intended to be used by game developers, decision makers and frontline workers in different settings where they can effectively use gaming as an appropriate tool for social integration and even education or rehabilitation.

Around 2% of this growing population is unable to play video games at all due to their disabilities, with 9% having to play them at a reduced level. For gamers with disabilities, games offer a chance for escaping the physical and sensory confines of the world in which they live. A football game gives a chance to a person with physical disabilities to take on the best teams in the world whereas an audio game enables a person with visual disabilities to unleash her imagination.

For many gamers with disabilities, they can enjoy games the same way others do – with no modifications – but for others, modifications are necessary. Despite the specific needs that gamers with disabilities may have, they still see themselves as gamers first and people with disabilities second. The belief in "people first" must drive all accessibility policies, whether it is in the gaming sector or not. This effectively means two things – designing accessible games should be guided by the principles of universal design, where the games are designed for use by everyone, regardless of their ability; and that people with disabilities should be involved in the design process.

A central component for accessible gaming for some players is Assistive Technology (AT). Modifications to controls, sensory output and input through software and hardware provide the means to gamers to play in a barrier free manner. As such, AT services must be equipped to supports gamers should need be.

One of the main obstacles facing the accessibility of gaming is the general absence of legislation in this area. Unlike access to information and media, there is no explicit legislation outlining the need to making games accessible. Even in countries where there are laws that regulate video games, such as South Korea and the United Kingdom, there is no explicit mention of accessibility yet. The result is that initiatives to make games accessible are driven by conscious designers and developers, and not by national initiatives.

Although legislation in accessible gaming barely exists, there are standards that have been created by designers and developers available as a guide on how to make games accessible.

Furthermore, certain games have been designed in a matter to improve motor, sensory or cognitive skills, and are used in educational and rehabilitative settings. This also needs to be considered when promoting gaming for people with disabilities. Policy makers and frontline workers must be educated about the importance of gaming in improving the quality of lives of people with disabilities. Resources must be available to both education and rehabilitation experts as well as making the needed expertise and funding required accessible to people with disabilities that want to integrate gaming into their lives.

Despite all the compelling reasons to ensure that gaming must be accessible to people with disabilities, gaming companies are not yet persuaded that there is a large market for accessible gaming – in both device controllers and game design. As such, funding and direct intervention by policy makers and service providers is required to stimulate the gaming market and make gaming more accessible to people with disabilities.

Mada International Best Practices Guide on Accessible Gaming acts as a basic and introductory resource to policy makers, designers, developers, rehabilitation experts, educators AT specialists and end users on how to create a more accessible gaming ecosystem in Qatar. To gain more information about accessible gaming and the top accessibility features related to each type of disability, please visit Mada website. ∎

The Latest Android Accessibility Suite

Reviewed by Mada
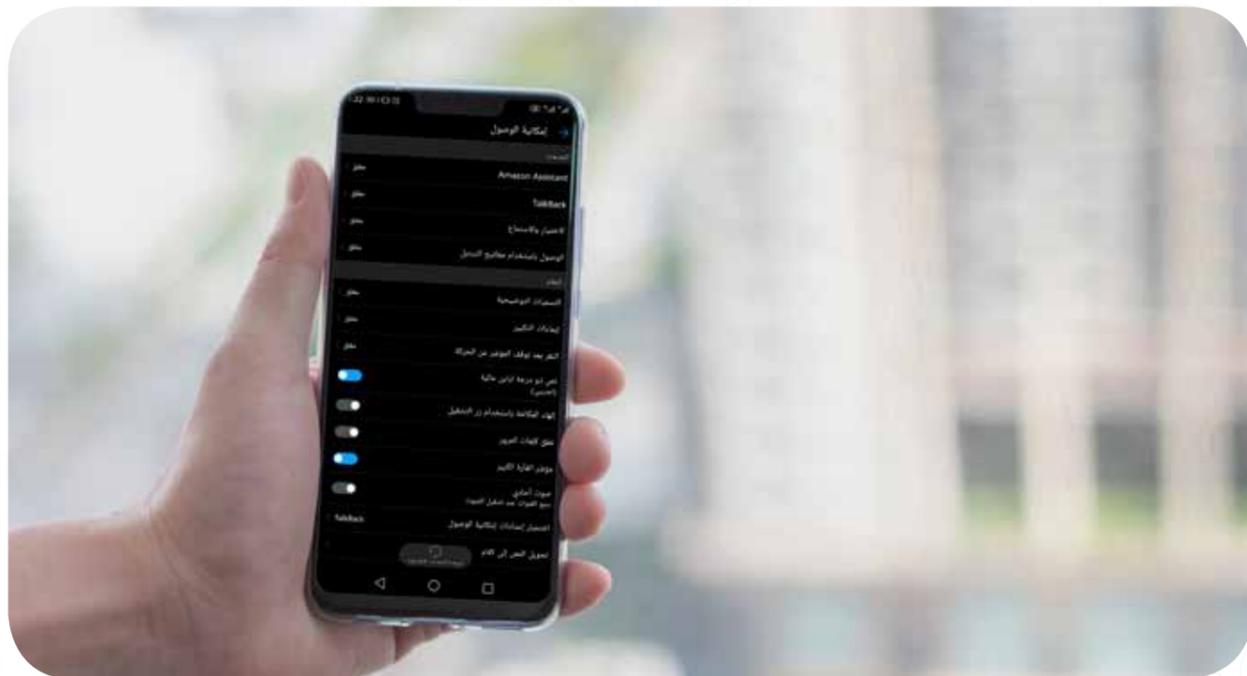
To ensure access to Android Operating System by persons with disabilities, "Mada" Assistive Technology Center reviewed the latest version of Android Accessibility Suite launched in August 2018. The new version introduced enhanced features that improve accessibility for people with functional limitations and especially people with visual impairments. The enhanced features in the Android Accessibility Suite include "TalkBack", Interaction Controls, Display Settings and others.

TalkBack, the Screen Reader

"TalkBack" is one of Android's primary accessibility features that provides spoken feedback for anything on a screen so that visual impaired users can navigate devices.

The Android Accessibility Suite "TalkBack" works with Switch Access and Select to Speak.

With the "TalkBack" screen reader, spoken, audible, and vibration feedback help those who are blind or have low vision navigate devices without having to look at the screen of a phone, tablet, and wearable.

The improvements of TalkBack are:

- In continuous reading mode, swipe right or left to fast-forward or rewind. If you're using a keyboard, press Alt + right arrow or Alt + left arrow. (To start continuous reading, choose "Read from top" or "Read from next item" in the global context menu.)

- On webpages, the "Headings and landmarks" navigation setting is changed to "Headings." To navigate by landmarks, use the local context menu.

- Improved navigation by "Controls." The "Controls" navigation setting now includes checkboxes, radio buttons, switches, toggles, and sliders.

- For people who prefer to turn off the "Enhanced focus" setting introduced in TalkBack 6.2, you can now turn this off in TalkBack Settings.

- For Android 8.0 and above, the "Dim screen shortcut" has been removed.

Interactions Controls

Interactions controls in Android Accessibility Suite include two options: Voice Control and Switch Access.

"Voice Control" allows the user to control the Android device through spoken commands. Through the voice, the person with disability can open apps, navigate, and edit text hands-free.

"Switch Access" allows users to control devices with a switch assistive device, while "Select to Speak" lets users select something on-screen and have it read or described aloud. All these settings are available under the Accessibility menu in Android Settings and updated via "TalkBack".

The main improvements of "Switch Access" are:

- Text editing is easier now with more actions available in the menu, including Highlight, Delete, Previous, Next, Copy, Cut, Paste, and Undo.

- The menus have a new design to help you stay in context as you navigate. Local (actions) menus appear next to the item, and the global menu appears under the menu button at the top of the screen.

- Performance improvements.

- Scroll arrows now appear for scrollable items.

Display Settings

People with visual impairments can customize display settings in Android devices for better render. The accessibility display settings cover the possibility to change the display size and font size in addition to the color and contrast options using one of the following three features high-contrast text, color inversion or color correction. Moreover, magnification feature allows the user to temporarily zoom or magnify a part of the screen.

BrailleBack

BrailleBack is an alternative display mode available in Android Accessibility Suite for braille display for Blind and low-vision persons. It connects a refreshable braille display to the device via Bluetooth. BrailleBack works with TalkBack for a combined speech and braille experience, allowing you to edit text and interact with the device

Audio & on-screen text

Audio and on-screen text covers two features that can be activated: Captions and RTT. The captions can be turned on the device to display alternative texts on image, sounds and videos after specifying three options (language, text, and style).

The Real-time text (RTT) during calls is an alternative way for persons with disabilities to communicate during a phone call using texts.

Get started with Android Accessibility Suite

To access all available accessibility features on an android device, the user needs to download the latest version of Android Accessibility Suite from Google Play. To turn on TalkBack, Switch Access, or Select to Speak:

1. Open the device's Settings app.
2. Select the Accessibility menu item.
3. Select TalkBack, Switch Access, or Select to Speak.

Android Accessibility Suite is a collection of accessibility services that help you use your Android device eyes-free or with a switch device. A new version of Android Accessibility Suite is now available on the Play Store with updates to the Accessibility Menu, Select to Speak, Switch Access, and TalkBack. ∎

Hukoomi Portal

The First Information Portal for Persons with Disability in Qatar

Empowered by MADA
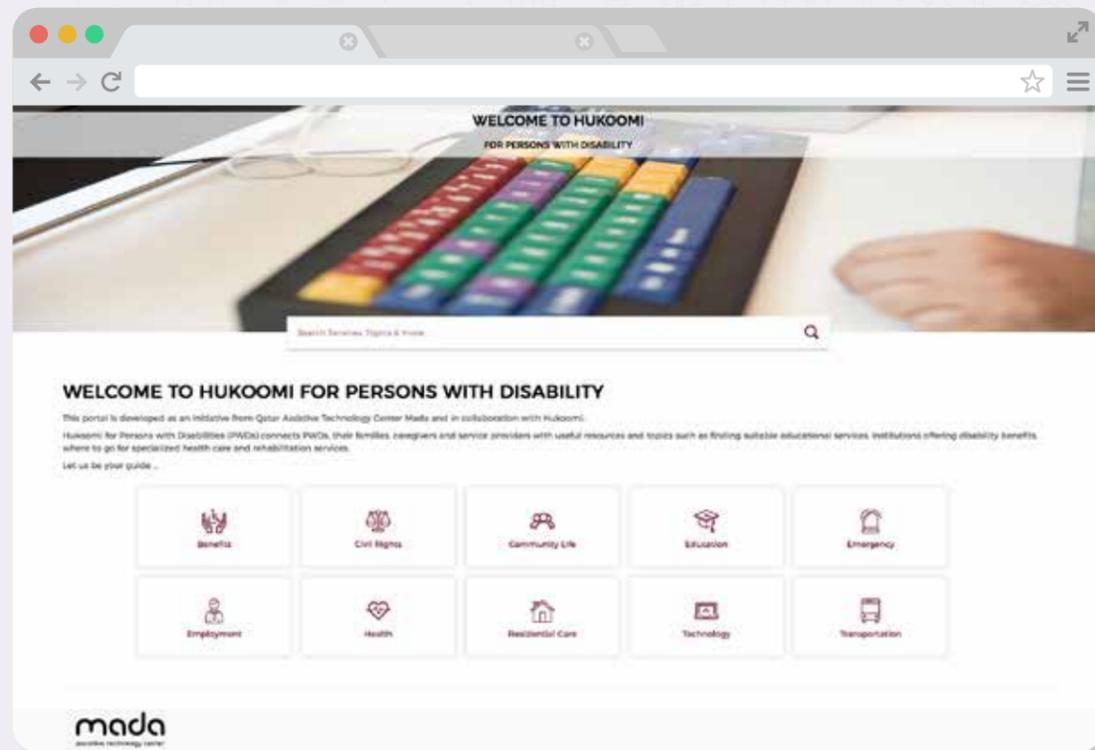
Believing that persons with disabilities are an integral part of society and that their participation in development must be guaranteed, the State of Qatar ratified the UN Convention on the Rights of Persons with Disabilities in 2008. In article 9 – "Accessibility", the convention confirms the right to access 1 – (b) information, communications and other services, including electronic services and emergency services." In this context, Assistive Technology Center "Mada", in cooperation and partnership with the official Qatar portal of e-government "Hukoomi" sought to support society, its members and institutions by empowering persons with disabilities, and various stakeholders through the establishment and launch of Hukoomi portal for persons with disabilities.

Hukoomi Portal for Persons with Disabilities is the first digital platform that links persons with disabilities, their families, care-providers and services. In order to ensure the effectiveness of the portal, Mada Center has collaborated with Hukoomi throughout the stages of preparation and followed carefully planned procedures from research and design to holding consultation sessions for focus groups composed of relevant individuals. The focus groups consisted of people with disabilities and their parents with the aim to find out their needs and address them in the portal. To ensure that the portal is suitable for persons with disabilities and to ensure that it follows digital access standards, the portal was evaluated and tested by a group of people with different disabilities.

The portal was designed following a human rights-based approach which is a conceptual framework for the human development process that is based on international human rights standards and is practical in promoting and protecting human rights. Pursuant to the Ministry of Transport and Communications' e-Accessibility policy, Hukoomi Portal aims to provide access to information within the framework of the Convention on the Rights of Persons with Disabilities.

The collaboration between Mada and Hukoomi provided a successful single digital platform offering easy access to important information sources in various fields, such as appropriate education, how to apply for social security benefits, access health care, as well as providing information on the services, facilities and support facilities provided to PWDs in public and private sectors. To ensure that the portal is constantly updated, private and public institutions, service providers and entrepreneurs with disabilities have been provided with the opportunity to add their services by applying for adding a new service to the portal. ■

Benefits

Transportation

Health

Technology

Emergency

Residential Care

Education

Employment

Civil rights

Community life

Mada Innovation Program Presents:

PenCam – Innovation for the Visual Impaired Community

The smartphone application features additional functions that include contrast enhancement, variable magnification, and other useful functions that allows the users to view the relevant contents suited to their visual needs.

Why is PenCam so important?
Commonly, most of the Assistive Technology (AT) devices manufacturers for vision loss support patents with stand-alone systems that have their own display, processor and other equipment such as batteries. These solutions are often relatively costly, bulky, and may have proprietary maintenance requirements.

PenCam caters to the challenge of supporting visually impaired people with the use of a combination between software and hardware kit that offers a portable, light and cost-effective solution for users. The smartphone application functionalities allow the solution to be customized based on the needs of the user. The smartphone application of the solution is continually updated to ensure that the software is up-to-date which unlike some of its counterparts, minimizes the need to upgrade the hardware frequently.

PenCam Achievements
In January 2018, the first PenCam prototype won a special award at the Arab Innovation Academy in Qatar, and subsequently participate in the World Government Summit in February 2018.

The second prototype of the solution was featured during the GREAT Conference 2018. Mada showcased the solution in the Innovation Zone as well as featured a product presentation in the Innovation Theater during GREAT Conference 2018. This provided valuable exposure to the solution and offered a platform to receive feedback from professionals and users internationally.

The product received positive ratings and feedback in GREAT 2018 which have been taken into consideration to develop the third prototype featuring various improvements including longer operation time, and a sleeker design specifically suitable for the elderly.

PenCam has also been successfully presented as part of the Innovation Zone at World Innovation Summit for Health (WISH) in November 2018.

The Future of PenCam
PenCam promises a unique approach to the problem compared to its traditional devices. These properties set it apart from the existing solutions. A differentiating factor of PenCam is its utilization of mainstream ICT technology (e.g. smartphone) as part of the solution. This is in line with the current innovative trend of incorporating assistive technology elements into mainstream products enabling it to be a strong potential contributor to the AT market for persons with visual impairments and the legally blind. ■

What is PenCam?
PenCam is designed to help legally blind people to read and write. More than 200 Million people worldwide have either Age-related Macular Degeneration (AMD), Retinitis Pigmentosa (RP), or other forms of visual impairment that lead to the individual's being partially sighted or legally blind. Such conditions usually tend to be progressive in nature and severely affects daily life. Mada Innovation Program has supported PenCam by providing thorough professional subject-matter

feedback on the product which contributed to the improved development of the product.

PenCam comprises of a high-resolution camera attached to any regular writing pen. This camera is connected wirelessly (using Bluetooth) to a smartphone application. The user can view a magnified version of the area of the page hovered by the pen on the smartphone. This allows the user to read objects or write on them (paper) using the device.

SUNU BAND

Independent Mobility and Spatial Freedom for the Blind Community

Avoid Collisions

Follow or trail
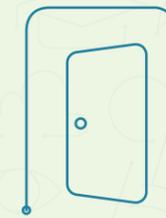
Identify Thresholds

Improve Awareness

Independent

mobility and foot navigation is one of the fundamental challenges facing blind and visually impaired community. The most basic mobility aids used by individuals with blindness and visual impairments is the white cane. Navigating with a white cane has its inherent challenges like the inability to detect obstacles at-and-above knee level or distances beyond approximately 1 meter. Over the past decades several approaches have been considered to improve the capabilities of white canes by incorporating sensor technologies to provide enhanced feedback (e.g. tactile) on the detection of obstacles. However, all

these approaches involve enhancements to the cane itself resulting in subtle if not major modifications to the cane (e.g. weight, dimensions, cost, complex usability, etc.).

There are various new technologies for safe navigation and mobility independence designed for the blind community, and a new innovative technology called "Sunu Band" has recently emerged in the market. The Sunu Band is a wearable device that comprises of a wrist band (similar to a smartwatch) and a mobile application. The wearable uses sonar sensors to provide haptic feedback and guide the user around obstacles. This process of echolocation is the same method used by bats to navigate

by transmitting sound waves and detecting the echoes to judge obstacle properties (e.g. distance, shapes, formation, etc.).

The Sunu Band emits vibration pulses upon detecting obstacles and the user is notified of obstacle distances by the strength of the vibrating pulses. The solution is designed to be used in conjunction with a guide dog, sighted guide, or cane. The device can detect objects up to 5.5 meters away. The accompanying Sunu mobile app allows to configure the device features such as customization of obstacle detection distance within indoor and outdoor environments.

The idea behind the Sunu Band is to provide a heightened sense of awareness of the surroundings to improve spatial perception and orientation ultimately resulting in improved mobility. The solution allows the user to perform practical daily tasks required for confident independent navigation. Such tasks include finding the gap in between two

objects and detecting people standing in front while in a moving queue. The wearable can also detect moving objects, like pedestrians, as they move toward and away from the user. The use of Sunu Band can reduce the probability of accidents to the upper torso, chest, arms and head as it augments the user's spatial awareness from knee height and above.

During its development, Sunu Band solution received the 2014 Gold Mass Challenge Perkins Award for Assistive Technology. The solution aims to empower mobility and independence for the visually impaired community by creating wearable technology that enables and augments the senses in a discreet and intuitive a way. The integration of the mobile app enhances the potential of the solution as it allows periodic updates and feature upgrades without having to replace the device frequently. For more information about the latest assistive technology, user experience, and expert feedback please visit Mada AT Portal. ■

BrailleNote Touch 32

Reviewed by Mada

The introduction of Braille Notetakers had revolutionized access to Information and Communication Technology (ICT) for persons with visual impairments. Notetakers serve as an ideal Personal Digital Assistants (PDA) for persons with visual impairments due to their inherent features like braille input/output, text-to-speech synthesizer, and portability. However, these devices are often of limited versatility as they do not allow users to easily update or modify the installed programs (e.g. Skype, Messenger, etc.). Such limitations often causes ICT advanced blind users not to fully fulfil their technological needs.

BrailleNote Touch 32 is an innovative device developed to address such limitations within traditional notetakers. This device combines the functions of a traditional notetaker and a modern smartphone or tablet. BrailleNote Touch 32 is powered by Android operating system and it also supports Arabic language. According to its developers, this is the first certified braille device to offer complete access to Google Play Store. It is the first intuitive, and user-friendly Braille tablet that includes a built-in touchscreen to serve as a visual display for sighted individuals who would potentially interact with the device (e.g. the user's teachers or assistants).

Along with its portability, the BrailleNote Touch 32 features the ability to cater for variable user preferences, the device includes a physical keyboard attached to the carrying case for users who prefers a traditional typing experience and/or for users without braille literacy.

BrailleNote Touch 32 is an ideal tool for blind Arabic users, as it is an efficient tool to perform everyday tasks related to ICT, from writing documents and sending emails, to downloading and reading books. In addition, it's keyboard offers an ergonomic introduction to braille typing for young children and new learners.

The BrailleNote Touch 32 has the potential to significantly impact the education sector by allowing barrier-free interaction between the blind student, his/her teachers, and the solution itself. This facilitates a conducive environment to aid teachers teach braille to their students while operating the device using a QWERTY keyboard. Teachers are also able to work with students to help and train them on other essential tasks like writing documents and sending emails, downloading and reading books. The innovative interface provides valuable visual feedback to the teachers and other relevant teaching staff members on the work being done by the blind user on the device in real-time. This feature proves to be useful in scenarios like exams and classroom tasks where the teaching staff would need to monitor the student's activities.

The Android based Operating System on the BrailleNote Touch 32 allows the device to have capabilities in par with mainstream tablets and smartphones. This is because the device is compatible with all the mainstream apps available in Google Play Store, allowing it to perform daily ICT functions like everyday office tasks from creating professional documents and emails to browsing the web and accessing cloud-based services. For more information about the latest assistive technology, user experience, and expert feedback please visit Mada AT Portal. ■

Web Content Accessibility Guidelines (WCAG) 2.1 for Arabic Web Content

17 new success criteria in WCAG 2.1

8 Mobile

5 Low Vision

4 Cognitive

E-Accessibility

can be defined as the ease of use of Information and Communication Technologies (ICT) by Persons With Disabilities (PWD). Web Content Accessibility Guidelines (WCAG) 2.1 were released in June 5, 2018, enhancing digital access standards for PWDs. As the pioneer of accessibility innovation in the region, Assistive Technology Center "Mada" has always worked to promote Arabic AT solutions and support the provision of international best practices and standards in Arabic. E-Accessibility is one of the key rights under the UN Convention on the Rights of Persons with Disabilities (Article 9 - Accessibility).

Web Content Accessibility Guidelines WCAG 2.1
WCAG 2.1 has 17 new additional guidelines with more emphasis on cognitive disabilities, users with low vision, and users with disabilities on mobile web accessibility and all are tested by Mada to be compatible with Arabic content. WCAG 2.1 is backwards compatible to 2.0. Previous guidelines, principles, numbering and success criteria still apply.

To ensure the ease of access to Arabic content within various digital platforms by people with different disabilities, Mada Center has worked in building abilities within government organizations through conducting several workshops based on WCAG2.1. Furthermore, Mada had worked in building a library of user interface web component for web developers. Recently, the UI web component had been enhanced to comply with WCAG2.1, and it is available for use through Mada AT portal.

WCAG 2.1 Enhanced in Three Primary Areas
As a number of years that have passed since the introduction of WCAG 2.0, there are categories in which major technological innovations have occurred, and WCAG 2.1 addresses those changes and what is missing from the WCAG 2.0 guidelines.

Mobile
The changes in mobile technology are massive. People no longer rely solely on laptops and desktop computers to go online. Now there are tablets, smartphones, televisions, and watches that are vehicles for accessing online content. And speaking of vehicles, these changes raise a host of accessibility concerns such as smaller screens, touch screens, and the physical environment in which these devices are used. WCAG 2.1 addresses these issues.

Low Vision
People with low vision face a host of issues affecting their ability to access digital information such as color contrast, light sensitivity, and color blindness. Now there are technological solutions provided by WCAG 2.1 to meet these accessibility needs.

Cognitive
Persons with intellectual disabilities, learning disabilities, attention deficit disorder, autism and age-related cognitive degeneration all face accessibility issues. WCAG 2.1 addresses and improves accessibility for these users.

Open the virtual front door to your organization as wide as possible through your website. This starts when you approach web design, functionality, and your content from an all-inclusive perspective. The approach is also a positive reflection about how you view the world and the diversity of people in it. Mada encourages you to take every opportunity to lower the virtual barrier or remove it altogether. ■