

**Annual Report 2017**

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# Message from the Minister of Transport and Communications

The State of Qatar, under the wise leadership of His Highness Sheikh Tamim Bin Hamad Al Thani, Emir of the State of Qatar, has always been keen to achieve equality and social justice, and has supported efforts to raise awareness of the needs of persons with disabilities and to make use of their capabilities and provide what they need for a decent living.

The State of Qatar was one of the first countries to ratify the Convention on the Rights of Persons with Disabilities in 2008, and has since gone a long way in promoting and protecting their rights, integrating them fully into society and involving them in the development process. This has been included in Qatar National Vision 2030 to achieve equality and justice for all segments of society, as well as to give great importance to human development and social protection.

Today, Qatar is comparable to the developed countries in the field of providing care for people with disabilities, thanks to the guidance of our wise leadership and the unlimited support of HE Sheikh Abdullah Bin Nasser Bin Khalifa Al-Thani, Prime Minister and Minister of Interior.

We reconfirm our responsibility and commitment to strive to improve the lives of persons with disabilities at all levels through information and communication technology, and integrate them into society to benefit from their capabilities in the development of the State of Qatar, the realization of Qatar National Vision 2030 and the directives of our wise leadership.

To achieve these noble endeavors and goals, we continue to work on several strategies and plans to support various segments of society, especially persons with disabilities. This is evident in the establishment of Assistive Technology Center - Mada that exerts great efforts to empower and support persons with disabilities and older persons to achieve their goals, be able to live independently and have equal opportunities in education, work and independent living to preserve their human dignity, and we shall continue to pursue these strategic objectives.

**Jassim Saif Ahmed Al Sulaiti**  
Minister of Transport and Communications



# Message from our CEO

We are pleased at Mada Center to present to you this annual report for the year 2017 to share our achievements, work, activities and events with our community and stakeholders in the State of Qatar.

Mada Center is committed in its work to supporting the pillars of Qatar National Vision 2030, which calls for the integration of all components of society. These efforts are part of the implementation of the "Electronic Accessibility" policy launched by the Ministry of Transport and Communications to ensure that persons with disabilities in Qatar have equal electronic access. Mada's work also shows Qatar's commitment to the Convention on the Rights of Persons with Disabilities as Qatar was one of the first countries to ratify it in 2008.

In Mada, we believe in the right of persons with disabilities to access all information, applications, e-services, and digital content. We consider that the promotion and protection of the rights of persons with disabilities are priorities of the State of Qatar and its public policy, in which the promotion and protection of human rights are essential. Mada Center seeks to enable, support and encourage persons with disabilities to fully interact with their community. We also provide them with assistive technology solutions to enhance their self-confidence to lead a safe and normal life.

In conclusion, I would like to extend my warmest regards to the dear readers, and my gratitude and appreciation to His Excellency Mr. Jassim Saif Ahmed Al Sulaiti, Minister of Transport and Communications, for his continuous support for Mada Center. Let us all work towards further advancement and progress of our beloved state of Qatar under the leadership of His Highness Sheikh Tamim Bin Hamad Al Thani, Emir of the State of Qatar.

**Maha Al Mansouri**  
CEO – Assistive Technology Center - Mada

# Mada Center

Mada Assistive Technology Center is a non-profit organization committed to connecting persons with disabilities to the world of Information and Communication Technology. First opening its doors in 2010, Mada was set up in response to Qatar's commitment to the UN Convention on Rights of People with Disabilities, thereby explicitly recognizing that technology is pervasive across a breadth of private and public sector activities and inherent in the Ministry of Transport and Communications strategy, and works to improve digital inclusion for persons with disabilities in the State of Qatar.

Furthermore, the Qatar National Vision 2030 serves as a clear roadmap to guide economic, human, social and environmental development in the State of Qatar. The growth of our country is dependent on all who live here, and therefore it is our responsibility to cater to all people effectively, support their ability to live independently, and derive equal opportunities when it comes to education, employment and independent living. We believe that persons with disabilities form an integral part of our society and have tremendous potential to contribute to the growth of the economy. Mada was created to help this community by leveraging on the capabilities of information and communication technology.

The organization strives to do more than just empower an individual; it endeavors to enrich the lives of PWDs to the fullest, by addressing issues in the ecosystem to ensure that they have all the required technology to succeed. To deliver on its ambitions, Mada engages in strategic and operational partnerships with critical players in the PWDs ecosystem.

**Mada engages in strategic and operational partnerships with critical players in the PWDs ecosystem.**



# Mada Achievements in 2017



**3633**

Clients Empowered with  
Assistive Technology



**6701**

Assistive Sessions  
Conducted



**1112**

Participants in the AT open  
training sessions



**60**

AT super users  
under training



**65**

Projects Undertaken



**21**

Publications released



**11**

Assistive technology  
stations



**25**

Assistive Technology  
school kits



**8**

Resources  
Deployed in Qatar



**115**

Qatar organizations provided  
with digital consultation



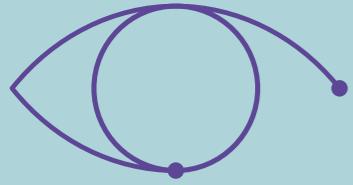
**5**

Localized products



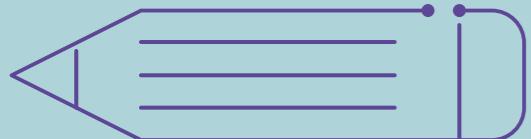
**17**

Researches



## 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 a Disabilities in Qatar by enabling both individuals and their environment through Information and Communication Technology.

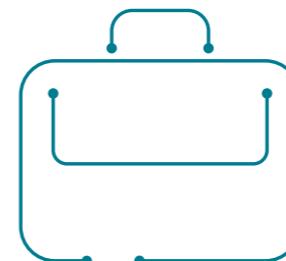
## Strategic Goals

Mada's strategic goals are:



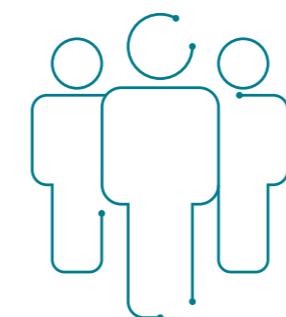
### Education

Support **80%** of students with disabilities in Qatar in accessing quality mainstream education by the end of 2018.



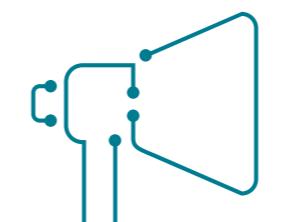
### Employment

Reach a **25%** increase in the number of employable PWDs in the local workforce by the end of 2018.



### Community

Support **25%** of PWDs accessing the community and increase Qatar's e-accessibility score to 93% by the end of 2018.



### Awareness

Raise awareness regarding the positive impact of AT on PWDs in Qatar by the end of 2018.

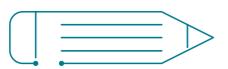
# Education



One of Mada's strategic goals is to

**80%**

support 80% of students with disabilities in Qatar in accessing quality mainstream education by the end of 2018.



**930**

Support was provided to 930 students with disabilities in Qatar for quality education.



**381**

381 students with disabilities benefited from assistive technology school kits.



**40**

Capacity building workshops and training of 40 teachers.



**25**

25 assistive technology school kits have been deployed in Qatari schools.



**319**

Training sessions for 319 people were offered in the Open Training Program.

Education has a key role in the natural integration of persons with disabilities in the community. One of Mada's strategic goals is to support 80% of students with disabilities in Qatar in accessing quality mainstream education by the end of 2018.

In order to enhance its contribution to education, Mada seeks to achieve the following:

- Provide schools with assistive technology services.
- Hold an open training program for the entire public and private education sector.
- Develop training and capacity building programs about the use of assistive technology.
- Provide schools with school kit of assistive technology and guidance on the needs of students with disabilities.
- Train teachers to enable them to provide assistance to students with disabilities.
- Provide advice and reports on best practices to the executives and decision makers of the Ministry of Education and Higher Education.

In 2017, Mada Center was keen to cooperate with the Ministry of Education and Higher Education and all relevant institutions in the field of education, which led to the promotion of the Center's presence in the educational sector in Qatar.

## Capacity Building Program in Education

In January, Mada signed the capacity building project scope of work with the Ministry of Education and Higher Education (MEHE). The project trained 40 Super Users, who are directly working with students with disabilities, on how to use assistive technology in classrooms to achieve the learning goals.

The program has been committed to ensure that teachers are equipped with skills and knowledge, and to provide for the educational needs students with disabilities. Twelve workshops were held with the assistance of four consultants from the United States specializing in education and assistive technology. Trainees were given the opportunity to apply this knowledge and skills gained from this program in schools through assessments and case studies and submit them for accreditation by Mada Center.

# Education

## Training and evaluation activities with different actors

The Open Training Program targeted several sectors in Qatar including schools, universities and government institutions. The most prominent of which are Qatar University, Georgetown, North Atlantic College, Hamad Medical Corporation, Qatar Foundation for Education, Science and Community Development, Shafallah Center for Children with Special Needs, Al Noor Institute for the Blind, Audio Education Complex, Ministry of Interior and many public schools.

In cooperation with the Ministry of Education and Higher Education, a special training program was launched on the sidelines of the Gulf Region Education Assistive Technology Conference 2017 GREAT. The program offered teachers specialized training workshops presented by international experts to train them on the latest programs and technological devices used in the field of education. 12 workshops were held on: Global Design, What is Assistive Technology, Assistive technology for students with motor and sensory disabilities, Writing and Reading Using Assistive Technology, Assessing the Needs of Students with Disabilities.

As part of Mada's role in increasing access to higher education with the use of AT, a lecture was delivered to the students of Qatar Community College. The lecture highlighted the benefits of using AT in educating disabled people.

Mada has collaborated with Renad and Awsaj Academies to assess the needs of students with disabilities and provide appropriate solutions as part of fulfilling the Center's commitment to students with disabilities in educational institutions.

## Assistive Technology School Kits

Mada Center provided 12 AT School Kits to selected government schools. These Kits included most robust high-tech AT that are suitable for students with different disabilities. They are used by teachers and therapists to facilitate assessment and intervention in order to increase access to curriculum. In addition to that, Mada held a workshop on "an Introduction to AT" and a training to familiarize teachers and specialists with the AT equipment.

In addition, 10 AT school kits were provided to students with autism spectrum disorders in public schools. These kits include assistive technology tools for social interaction skills, daily routines, sensory games, GPS tracking devices, robots and applications for academic skills development.

The Center also provided 3 collective assistive technology kits to the education sector to facilitate assessment and intervention with students with disabilities in groups to increase access to the curriculum. In addition to that, the Center provided support to 380 students from different levels of education and types of disabilities who benefited from assistive technology and autism technology kits at various locations in government and semi-governmental schools in Qatar.

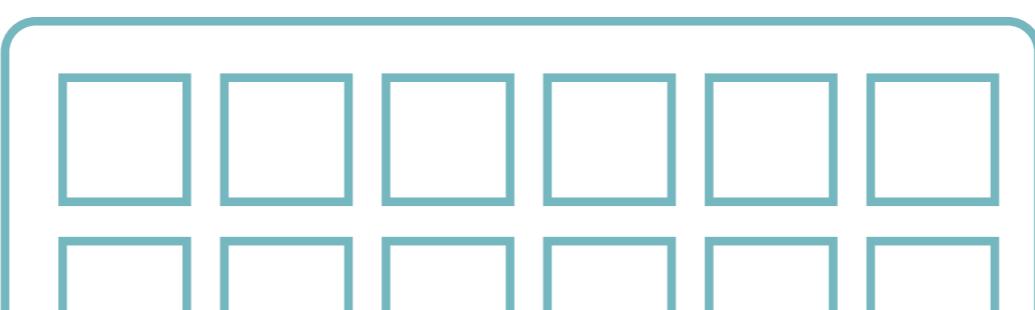
## Assistive Technology Stations

Mada Center has established an assistive technology station in Roaa Center at the Ministry of Education to facilitate assessment of the needs of students with disabilities, provide available solutions and conduct short training on these solutions. The station also aims at keeping the technology specialists of the Roaa Center updated of the latest technologies and solutions available for the education field, in addition to facilitating the access of the educational sector to the latest specialized technology to serve students with disabilities facing educational difficulties.

## Assistive Technology Services

Mada has provided assistive technology kits to schools to help students in the classroom access assistive technology, train teachers on how to use it, and help them develop their ability to work cooperatively. The project included:

- Providing twelve assistive technology kits for schools that have students with learning difficulties and minor motor disabilities.
- Providing ten assistive technology kits to schools that have students with autism.
- Providing three general technology kits to a group of students with disabilities.
- A user guide explaining how to use AT equipment.
- Providing a permanent assistive technology specialist within the school to help students express their needs and monitor them daily.
- Training additional support teachers on how to use technology in class.
- Educating school teachers about assistive technology through a training course entitled "Introduction to Assistive Technology".



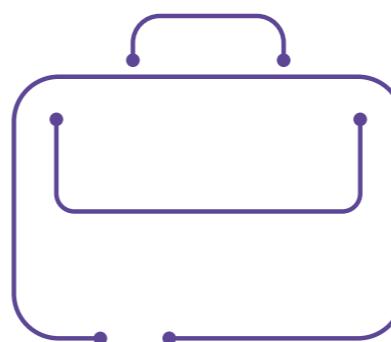
# Employment



25%

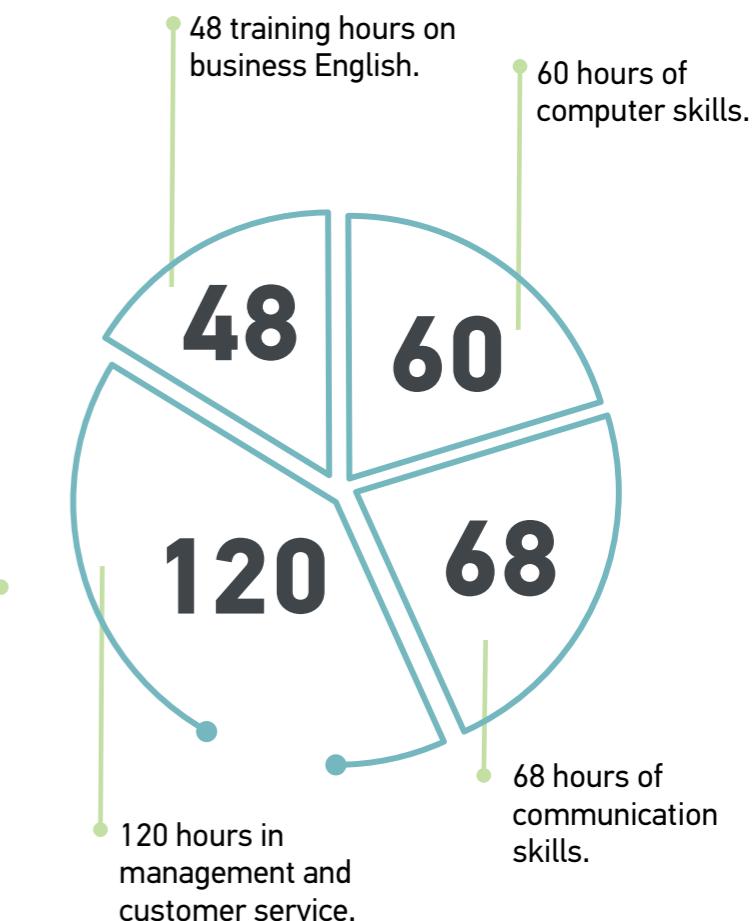


Reach a 25% increase in the number of employable PWDs in the local workforce by the end of 2018.



296

296 training hours  
for the first phase  
students divided into



56

56 persons with disabilities were trained and qualified through the Access to Employment program to compete in the job market.



135

135 certificates were awarded to the trainees of the first stage.

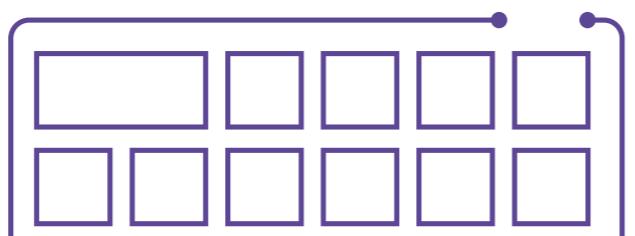
104

104 certificates were awarded to second stage trainees.



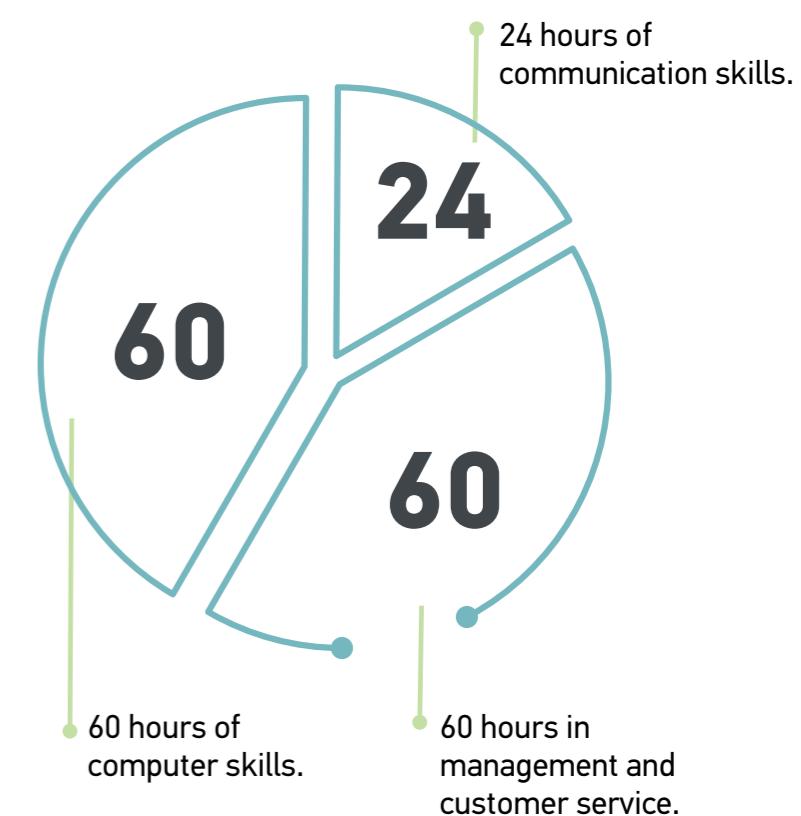
# 440

440 training hours  
were offered.



144

A total of 144 training hours were offered for the second phase divided as follows



# Employment

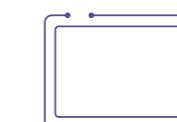
Types of disabilities in the program



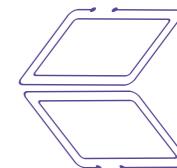
## AT equipment used



**38**  
laptops



**5**  
large screens



**2**  
mercury  
12 cctv



**3**  
NVDA



**7**  
Mada reader/  
writer



**3**  
joystick  
mice



**3**  
IBSAR



**10**  
pebble  
watches



**10**  
FM system



**10**  
phone  
amplifier

# Employment

## Access to Employment Program

Mada assistive technology center launched a ground breaking new exciting initiative in 2017 called the “Access to Employment Program” in partnership with the Ministry of Administrative Development, Labor and Social Affairs. The main purpose of the program was about empowering, supporting, mentoring, counseling and training People with Disabilities in the belief they can become job ready. It is an inspirational program that helps PWDs have the confidence to believe they can achieve their goals and aspirations. This was achieved with the help and guidance of Mada’s counselors who coached and mentored the participants by developing their skills through support plans and helping them prepare a portfolio of learning and skills. Each course followed action plans on how to overcome personal barriers. It was a unique employment program targeting people with disabilities in Qatar.

Mada counselors did individual assessments of each participant and trainers from accredited training companies delivered the training to the participants according to their individual needs. The participants benefited enormously from personalized one to one training and mentoring, and they were supported in every step of the way by the trainer and counselor appropriately.

There were 3 core courses which the participants completed to help them towards becoming “Job Ready”, Confidence Building sessions were key components of this program, helping them to improve their self-worth. The courses were Basic Computer Skills, Basic Administration, Communication and English Language Skills. The training components also included assisting the participants in writing their curriculum vitae and completing the medical examination of employment, job search and access to employers. Graduates received the employment’s medical examination certificate, along with an accredited certificate for each course at the end of the program.

In order to ensure that the program achieves its objectives, and in cooperation with the Ministry of Administrative Development, Labor and Social Affairs, two weeks of in-service training will be provided to graduates in order to provide them with suitable job opportunities according to their abilities, interests and career orientation. Graduates were not left to start the job without support. Program supervisors at Mada Center will follow up with the graduates in their new jobs for six months to ensure effective, real and stable employment and achieve the primary purpose of the program.



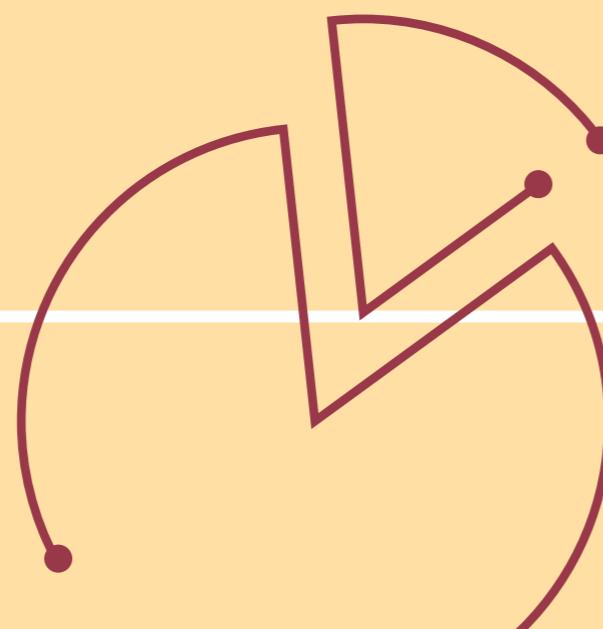
## The success story of Saud Al - Shammary

Saud had cerebral palsy at an early age, so he had to deal with his concerns and disability issues daily and felt he had no hope of a real future. When Saud learned about the launch of Mada's Access to employment program, he took the opportunity to join the program.

Thanks to the help of Mada Assistive Technology Center, Saud was able to learn easily and was able to complete the training courses in an accessible environment. He felt comfortable using the facilities and assistive technology provided by Mada, which improved his printing ability and enabled him to create presentations using the PowerPoint program. "I never imagined that I would be able to do such work," said Saud. Saud was also trained on administration, customer service, information technology, communication skills and English.

Since joining the program, Saud wanted this to be the opportunity he needed to change his life for the better. From the beginning, his family was confident that this opportunity at Mada would benefit their son a lot. But what they did not expect was the enormous change that would happen to Saud; Saud became the ambassador of the Access to Employment program, who inspired, encouraged and was an example for everyone.

Saud's family said that they directly noticed how confident he became and how he believed that he had a bright future to look forward to just like his peers. The program helped him discover many skills he had and develop new skills that would be very useful to him at work. He successfully passed all the training courses in the program with the support of supervisors and specialists, and he could communicate in basic and simple English which was an important part of his training. Saud's family expressed their gratitude to the Center for providing this opportunity to Saud and supporting him to develop his skills and abilities.



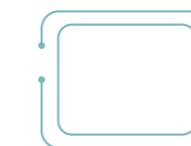
# Community



Mada's strategic goals in the field of community and e-accessibility



Support 25% of PWDs accessing the community and increase Qatar's e-accessibility score to 93% by the end of 2018.



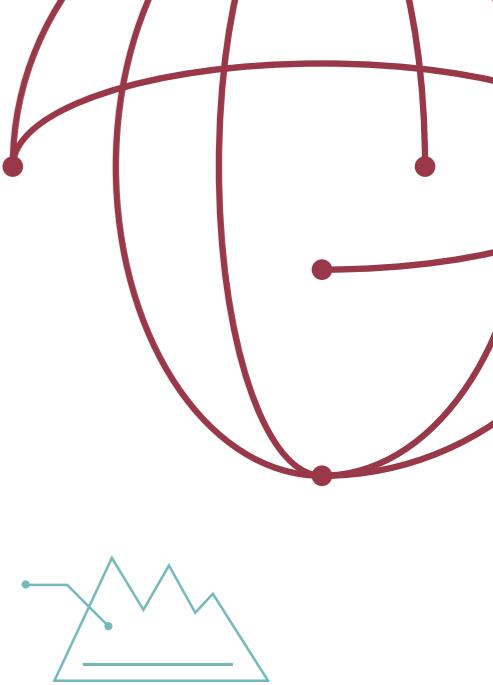
**32**

Consultation and support was provided to 32 government websites.



**246**

A total of 246 seniors were educated about AT through the open training sessions.



**11**

11 AT technology stations were established at Ehsan Center, Shafallah Center, Hamad Medical Corporation, Ministry of Education and Higher Education and Ministry of Interior.



**234**

234 assessment sessions were held.



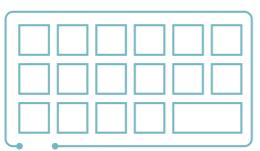
**195**

195 AT devices were provided.



**20**

Building the capacities of 20 super users.



**821**

Technology support was provided to PWDs.



**88%**

Increasing e-accessibility in Qatar to 88% according to the online web accessibility monitor.



**45**

The e-accessibility of 45 governmental and non-governmental websites was assessed.



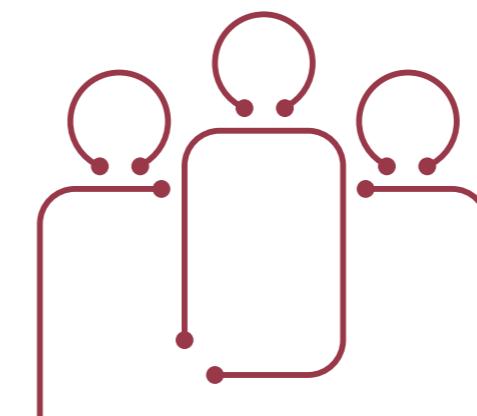
**667**

Training was provided for 667 trainees in the Open Training Program.



**137**

137 GPS tracking devices were distributed.



# Community

In order to provide accessibility for 25% of persons with disabilities, MADA implemented several projects and programs in 2017 in cooperation with a number of partners to raise awareness of the best international practices in the field of providing support and empowerment of persons with disabilities and the elderly through technology.

During the 2017, Mada implemented specialized human and institutional capacity building programs in collaboration with a number of strategic partners such as Ehsan, Shafallah Center and Hamad Medical Corporation.

Mada published 10 guides, reports, studies and researches that included best international practices that will improve the lives of persons with disabilities and the elderly, and support their access to the community to enable them to live independently .The guides were published on the Center's official website. Community participation has been expanded through the collaboration with a number of stakeholders such as the National Human Rights Commission, the Public Authority for Retirement and Social Security and the Autism Parents Society.

To ensure the inclusion of persons with disabilities and to expand the scope of effective participation and cooperation in the community, Mada adopted a policy to ensure the participation of PWDs and other stakeholders in the design of special projects, based on their needs. That was done through consultation sessions (focus groups) resulting in recommendations and proposals for programs and projects. Mada also added sign language to Hukoomi communications center.



**Mada published  
10 guides, reports,  
studies and researches  
that included best  
international practices**



# Mada Partnerships

As part of its efforts to promote inclusion and access to society for the disabled, Mada has worked with a number of strategic partners such as Hamad Medical Corporation and Shafallah Center. Working with these partners, Mada has been able to provide support services through assistive technology to key groups.

## Hamad Medical Corporation

In Hamad Medical Corporation, the center's activities included evaluating and providing technology to various clients. In addition, Mada provided a range of training courses, educational resources and support to the Corporation's staff throughout the year on best practices and the latest trends.

## Shafallah Center

With the Shafallah Center for Children with Special Needs, Mada also provided technology assessments and AT to many customers. In particular, 7 assistive technology stations were established at Shafallah where employees and clients can benefit from a wide range of augmentative and alternative communication tools and other assistive technologies. As for Shafallah and Hamad Medical Corporation, Mada identified advanced users and provided them with an intensive program to develop their skills and build capacities. The result was the creation of a new base of local assistive technology experts.

## Ehsan Center

Mada Center worked with the Center for Empowerment and Elderly Care "Ehsan" to implement a one-year project with the purpose of bridging the digital gap caused by the accelerated technological development. The project included a series of training courses for the elderly. Topics covered included basic mobile phone operations, use of critical applications and other things. Thus, dozens of older persons were trained on assistive technology and digital access, and increased their ability to use technology as a means of overcoming the functional challenges of aging. An assistive technology station was also established at Ehsan Center to provide AT equipment for the elderly in the same place where they need it to meet their different needs.

## National Human Rights Commission

A memorandum of understanding was signed with the National Human Rights Commission to support the rights of persons with disabilities from the perspective of the human rights model for the purpose of exchanging experiences and capacity-building. Cooperation between the two sides included a joint project to improve access to this national organization, including the review of its premises, the training of its staff and the review of its websites. Mada Center worked also on the "single window" project to ensure accessibility of the website for persons with disabilities to benefit from its multiple services. The Single Window initiative is an important initiative of the Ministry of Economy and Commerce to simplify all its services and make them accessible to all.

## Qatar National Library

At the end of 2017, Mada Center launched a unique and important project in cooperation with the recently opened Qatar National Library. The initiative aimed at facilitating access to digital content for persons with disabilities, in collaboration with Bookshare, the largest online collection of accessible e-books. In addition, the initiative included the establishment of a center of assistive technology open to the public and an obligation to improve OCR.



# E- Accessibility

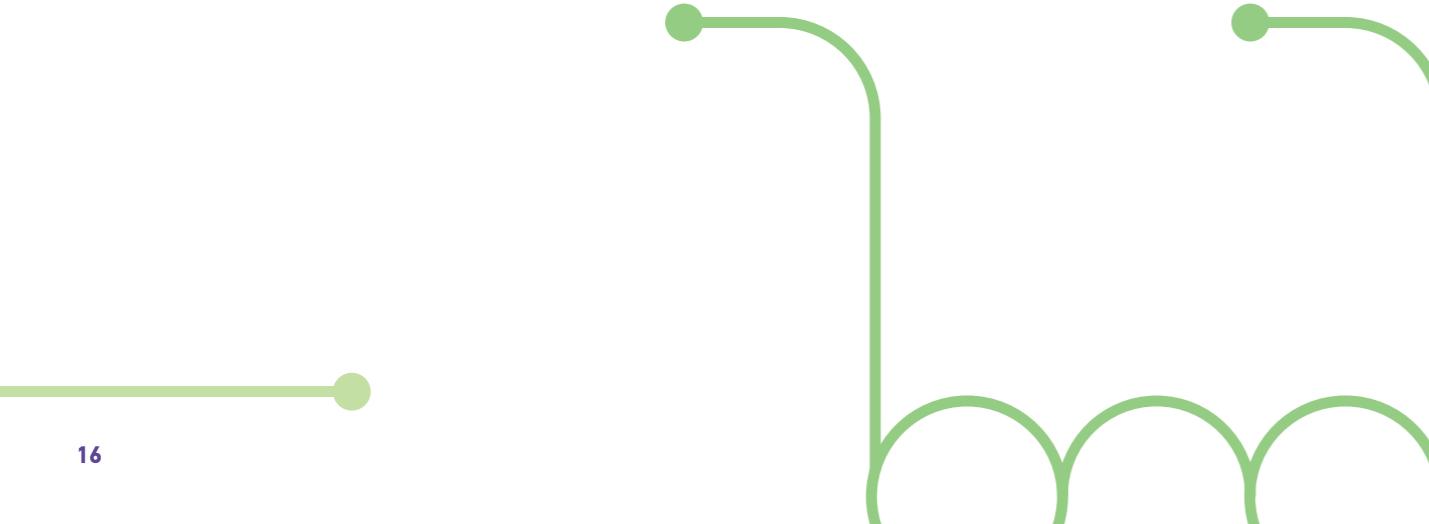
In order to promote e-accessibility and increase the accessibility of government websites, Mada Center, through 2017, worked to facilitate greater digital access through a one-year project targeting leading digital content providers and web developers in approximately 36 government websites in Qatar. The project is supervised by Mada experts, where assessment services are provided for electronic sites, reports are issued, solutions are developed, consultants are provided and staff trained on these sites to ensure continuous updating and implementation of the highest standards of accessibility. The results of these audits were incorporated into a national monitoring system that resulted in a standard scale where scores are recorded in Qatar, giving a clear indication of the state of e-accessibility in the country.

As a result of this project, accessibility to government websites increased from 83% in 2016 to 88% in 2017.

Mada Center has also launched the E-accessibility Accreditation Award, which grants accreditation to sites that implement universally approved e-accessibility standards. Since the launch of the program, the Ministry of Interior, Ministry of Transport and Communications, Ministry of Foreign Affairs, Hukoomi website and Accessible Qatar have received this accreditation.

## Access to banking services in cooperation with Qatar Central Bank

During 2017, Mada started cooperating and coordinating with Qatar Central Bank with the objective of enhancing the awareness of banks of e-accessibility and facilitating access to ATMs and electronic banking services. The Access to Banking Operations Guide and flyer on access to ATMs were released, in addition to holding an introductory meeting and training workshop for banks' employees.



# Success Stories

## A Success story with Hukoomi electronic portal

The role of the official portal of the Government of Qatar, Hukoomi, is to provide government information and services in a more efficient manner in order to facilitate the access of all citizens, residents, visitors and businesses to them.



For several years, Mada has worked with Hukoomi to provide digital access services to ensure that Hukoomi portal for people with disabilities is accessible.

Hukoomi was distinguished by excellence in electronic access after a review by the electronic access team at Mada Center, where the portal implemented all international standards on e- accessibility. Many people with disabilities have expressed their happiness at being able to benefit from accessible government services through the accessible Hukoomi portal. Mada Center awarded the Electronic Accessibility Award to Hukoomi as part of Mada's National program to grant accreditation to websites that meet the standards required for e-accessibility.

To this day, Hukoomi continues to ensure that its website and services are accessible to everyone.

## A success story with Shafallah

Khaled is nonverbal autistic teenager, who was enrolled at Shafallah since the academic year 2012-2013. He is one of about 90 students in the Autism Unit who benefit from special rehabilitation and education services at the center. The speech therapist assigned to Khaled referred him to Mada Center for appropriate support for his condition when he was 14 years old.



Mada team started working with Khaled on a device called proxtalker, an adaptable recorded speech communication device that enable independent verbal picture communication for non-verbal people of all ages. This technology allowed Khaled to simply place any photo, symbol, or object on a sound tag card and have a voice output.

After two month of using the proxtalker, Khaled showed a lot of improvement in using the device and his skills in using communication devices were developing very well.

# Mada is the AT Center of Excellence in the Region

After reviewing him, we decided to start using an iPad with him with the Gotalk Now communication application. Khaled responded very well, he is able now to formulate his daily needs in a sentence of 3 sequenced pictures without help.

"Assistive technology improves communication for students with communication and learning difficulties, and helps them express their needs, which they cannot usually do. It helps them overcome the frustration of not being understood by others," a Shafallah specialist said.

Our work at Shafallah reveals how important technology is to meet students' special needs. Computers and adaptive technology allow students to perform the same or similar work as their peers but at their own pace and in a setting where the information is presented in a manner best suited to their individual learning styles and needs.



**24**  
sources were released with the aim of promoting the status of Mada Center as the assistive technology and e-Accessibility leader in the region.

In 2017, Mada Center succeeded in adding 100 new symbols of new words in Tawasol's symbols dictionary.

Mada Center worked through 2017 on promoting Arabic assistive technology and capacity building to deliver its services throughout Qatar. This was primarily to establish a foundation for sustainable innovation in assistive technology and accessibility within the State of Qatar and the Arab region. This was complemented by the development of various best practices resources to support policy makers, professionals, families, persons with disabilities and relevant community members, as the work included the fields of education, employment and society.

As part of its efforts to build a sustainable ecosystem of assistive technology and accessibility, and support the development of the private sector market in this area, Mada has held strategic partnerships with various business incubator centers in Qatar such as Qatar Business Incubator. The Center has worked with these partners to leverage on their experience in establishing sustainable business in the private sector, while the Center contributes through its substantive expertise in assistive technology and accessibility.

## Independent Living

One of the objectives of Mada Center through strategic and operational partnerships with the contributing parties is to ensure that PWDs would benefit equally from other community services and facilities available to the general public. In order to support independent living and social integration of PWDs with a focus on ICT, Mada Center has:

- Conducted focus group sessions with people with disabilities to find out their needs for independent living.
- Prepared and released a guide on international best practices in strategies and services to support independent living for PWDs and shared it with government and private organizations concerned with the provision of services to PWDs, urging them to implement the recommendations contained in the report.
- Designed an action plan in cooperation with the National Human Rights Committee to raise awareness within the State of Qatar on the importance of supporting the independent living of PWDs and updating related policies.
- Held a workshop for policy makers and strategic planning specialists on best practices and global support for independent living for persons with disabilities, and the workshop was presented by an international expert.

## Aging and Technology

Mada Center seeks to ensure that the elderly continue to communicate effectively with the community. The center launched a special program to empower the elderly through technology, as this program seeks to establish a sustainable mechanism to reduce the digital gap between the elderly and technology in a useful and effective way that helps them to live independently and provide them with various possibilities that will also integrate them in society and with their families. The program includes:

- Publication and dissemination of the 'Aging and Technology' guide, which contains best practices to enable older people to use technology and assistive technology devices.
- A partnership and implementation of an action plan in cooperation with the Center for Empowerment and Care of Older Persons (Ehsan) to raise the awareness of older people on the importance of using technology and its positive impact on their lives.
- Conducting a building capability training program for the elderly to use smart devices and applications as well as social networking programs.
- Distribution of smart phones free of charge to the elderly who have passed the training program on the use of smart devices and applications.

## Supporting entrepreneurship for people with disabilities:

Many entrepreneurs with disabilities face additional obstacles when they enter the world of entrepreneurship or independent employment and when starting their own businesses.

In order for people with disability to start a business of their own, they need fully accessible services to meet their needs and to reach a series of proactive initiatives to overcome the additional obstacles they may face.

Mada Center helps make a quantum leap through which the business community and stakeholders can provide a proactive platform to support entrepreneurs with disabilities, as it offers through its strategies:

- Support for PWDs to start their own businesses (consulting, effective training, financial and non-financial support and technological support).
- A report on Best Practices for Establishing Accessible Services to Support Entrepreneurs with Disabilities in Qatar, which aims at educating and assisting incubators, commercial banks and development banks and all public and private entities engaged in entrepreneurship support to understand the needs of PWDs.

## Support for PWDs' participation in cultural life, leisure and sports activities:

Mada does not only empower people with disabilities but also their environments, as the center believes that it is not enough to fully support the individuals.

- It is equally important, if not more, to address the environmental issues surrounding PWDs to ensure that they have everything necessary for participation and integration and access to places for cultural activities or services, such as theaters, museums as well as libraries.
- Development and publication of the 'dealing with people with disability' guide in partnership with the Business Disability Forum.
- Conducting training programs on the use of the Universal Design principles to achieve accessibility for the Qatar National Library, Qatar Museums, the Museum of Islamic Art, the Qitcom Conference and Exhibition, and the Rota Empowerment Conference.
- Provide consultancy to organizers of events and conference on how to make them accessible to PWDs, and using accessible and appropriate technologies for different types of disabilities.
- Establishment of an AT center at Qatar National Library.

## Hukoomi portal for people with disabilities

The State of Qatar believes in the rights of people with disabilities and seeks to raise the awareness of the community, its members and organizations in ways of empowering people with disabilities, supporting their independence and enhancing communication between them and the various institutions. The Hukoomi Portal for PWDs was developed by Mada Assistive Technology Center in cooperation with Hukoomi website and was designed based on the human rights model.

The portal is meant to link people with disabilities, their families, caregivers along with their services, as it facilitates access to information sources of interest to them in various fields such as appropriate education, social security services, health care, medical rehabilitation and other information.

In order to ensure the effectiveness of this portal, Mada Center took careful steps from research and design to holding consultation sessions for focus groups composed of stakeholders. The portal itself was tested by people with disabilities to find out the most important requirements that must be met before launching it and to ensure its adoption of the international e Accessibility standards.

The portal goals include:

- Provide a single platform that includes the services, benefits and information provided for people with disabilities so than everyone can search and benefit from these services and information and obtain them easily in an accessible manner.
- Provide accessible information to PWDs regarding services and support facilities provided to them in the public and private sectors.
- To act in response to the right to access information within the framework of the Convention on the Rights of Persons with Disabilities ratified by the State of Qatar. And in accordance with the Ministry of Transport and Communications for ease of digital access and web accessibility.

# The Innovation Program

Through a combination of entrepreneurship grant programs, Mada aims to provide a mechanism to bring relevant innovative assistive technologies and accessibility products and services to the local market. This will enhance the lives of PWDs in Qatar and the Arab world.

There are three types of award categories that fulfil the objectives of Mada's Innovation program. These categories involve offering grants for individuals and entities with innovative products or services. Grants are offered in the form of funding and provision of subject matter expertise (e.g. mentorship, user/professional experience feedback, etc.).

Following are the details for each category:

## 1- Competition Award:

This award type category is designed for creating opportunities for individuals and entities to gather seed funding for their AT related product or service "Proof of Concept". Applicants selected for this award type will be directed towards participating in dedicated AT and Accessibility segment developed within various existing competitions.

### Mada-ALECSO Apps Award

Mada collaborated with Arab League Educational Cultural and Scientific Organization to launch the first award for mobile applications aimed at improving the living conditions of persons with disabilities. The competition was very popular in its first year, with 116 participants from 17 Arab countries. Two winners were selected for Mada-ALECSO App Award 2017.

The developer Abdul Karim Khoey from Morocco for the application "Smart Face", an application that uses the front camera of the device to control the device through facial gestures or head movements. The other winner was Mohamed Al-Qallal from Tunisia for the application "HandiAccess ", which provides access to the services of some government departments in the city of Sfax, Tunisia.

## 2- Entrepreneur Grant:

This award type category is designed for creating opportunities for new innovative entities in Qatar who already have a "Proven Concept" for their AT product or service to establish themselves in the market. Applicants selected for this award type will be provided with a grant through MADA Innovation Program to develop the proposed product/service concept to cater towards the local and Arab market.

In 2017, entrepreneur grants were given to two emerging technology companies:



## TAWASOL AAC App

Identifying the fact that there is a serious shortage of solutions that enable alternative communication for people with disabilities affecting their ability to communicate verbally, an Arabic AAC mobile app to be developed utilizing the Tawasol symbols was awarded in Mada's Innovation Program. The solution will serve the people who are non-verbal or minimally verbal, particularly children with autism. With natural speech and ability construct sentences in Arabic with a large set of symbols, the solution uses highly reputed and evidence-based Tawasol symbols as the main set of symbols.

## Arabic Money Reader App

Within Mada's Innovation Program, another mobile application that detects and read currency notes for visually impaired individuals was awarded to be one of the winning solutions. It's a smart algorithm on smartphone using the camera of the smartphone to detect and recognize the currency values using image processing technology. When the currency has been detected the app will vibrate, activate the flashlight of the camera and say the note value has been detected. The App will support both Arabic and English spoken messages (currency values)..

## 3- Localization Grant:

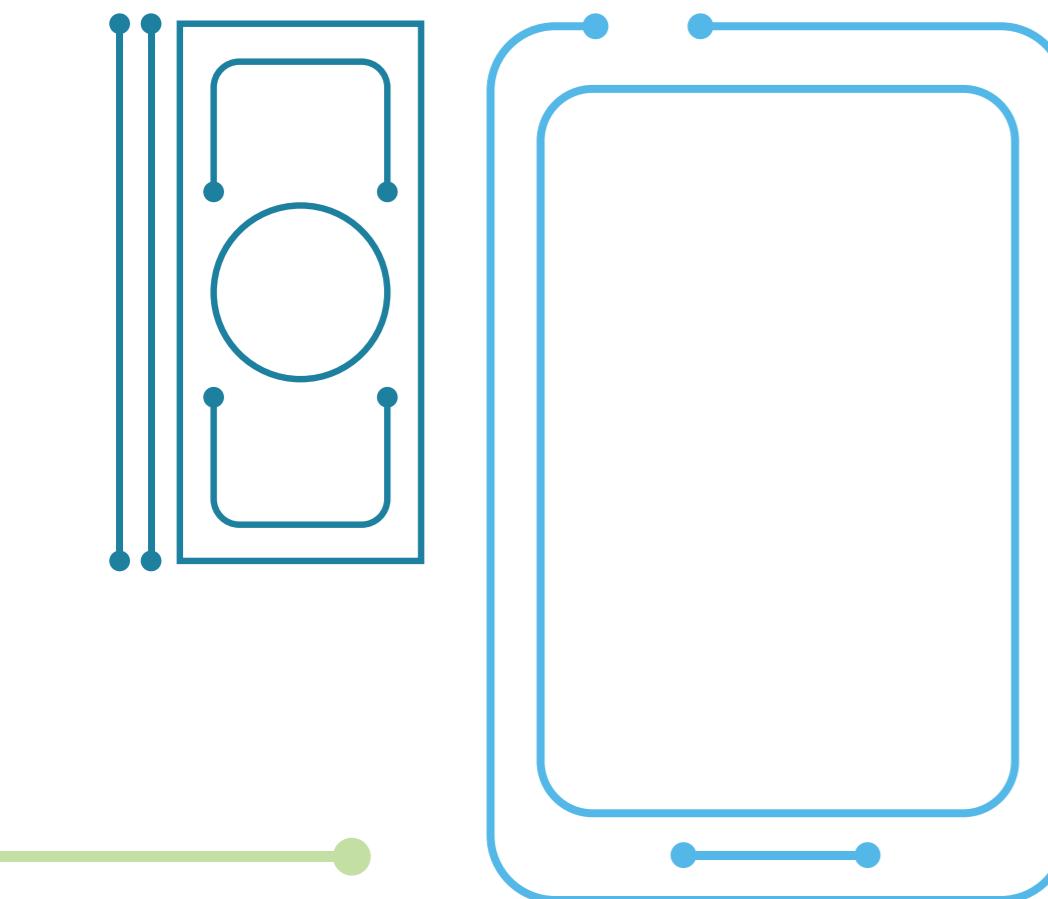
This award type category is targeted towards international established entities who already have an existing prototype for a potential idea relevant to Assistive Technology products/services who are looking into Arabic localization of their product. MADA will provide grant through MADA Innovation Program directly to potential established entities with relevant product/service concept to cater towards the local and Arab market.

The Innovation Program in Mada was part of the focus group and judging panel for the "Stars of Science" TV program. This involved offering expert advice, mentorship, and evaluation of the participants and their solutions. Mada Center provided the appropriate guidance and support to Mohammed Al Jefairi (the fourth winner in the Stars of Science) with his project "The Interactive Teacher of the Deaf" See - Do.

## Gulf Region Educational Assistive Technology Conference 2017 (GREAT)

As education has become the cornerstone for building a successful society, Mada center decided to launch Gulf Region Educational Assistive Technology, which addressed comprehensive and accessible computer technologies and assistive technology in education. The conference was held from 23 to 26 April 2017 in Doha in partnership with the Assistive Technology Industry Association. The conference was the first of its kind in the region, and it focused on teaching practices through accessible computer technologies and assistive technology. It also included training workshops for teachers and those interested in education about modern technological devices and programs used to facilitate access to education.

Mada Center, based on its role as a focal point in the field of assistive technology in the region, wanted this conference to be a unique opportunity and a platform for researchers, experts and those interested in this field to meet and share the knowledge, expertise and learn about the latest developments, implementation strategies, research and best international practices to benefit from in our region.



## TAWASOL: The first AAC symbol set in Arabic

Individuals with profound speech and language difficulties rely on Augmentative and Alternative Communication (AAC) systems to supplement or replace existing speech in order to effectively communicate with others. According to the American Speech-Language- Hearing Association (ASHA), “AAC includes all forms of communication (other than oral speech) that are used to express thoughts, needs, wants, and ideas. We all use AAC when we make facial expressions or gestures, use symbols or pictures, or write”.

Speech-Language Therapists and Special Education Teachers in the Arabian Gulf constantly face challenges in using appropriate symbols for AAC systems, as they have to depend on westernized symbols. Most of the free and paid-for AAC symbol sets available in the market, have been designed in the USA and Europe for word lists in English and European languages. These symbols often tend to have different cultural and contextual representations when presented within the local Arab society.

Additional challenges towards using westernized symbol sets within the region, involve therapists and teachers being from a different language and cultural background compared to the AAC users.

The larger population in the Arabian Gulf countries is composed of expatriates, leading towards the need to effectively communicate with people having different dialects and language fluencies. Furthermore, the Arabic language is spoken differently when communicating in formal Arabic and colloquial Arabic. All such factors are related to the need to effectively communicate within a society with varying verbal communication languages/styles, along with different interpretation of visual symbols on a cultural and contextual level, which have raised the need to develop an AAC symbol set to cater for the concerned population.

In 2013, Mada embarked on a project to develop an AAC symbol set called Tawasol Symbols, which focuses on the Qatari Arabic language and the modern standard Arabic MSA. The project was launched in collaboration with the University of Southampton and Hamad Medical Corporations, and funded by Qatar National research Fund (QNRF). The initial challenge was to select a suitable set of word and symbol lists that were culturally and contextually appropriate towards the local society.

The process began by collating word lists from AAC users attending relevant institutions (school and clinics). The next step involved comparing this list to a list of the most frequently used words in spoken Arabic, as well as written Arabic for literacy schemes. This allowed Mada to come up with a selection of core symbols and fringe vocabularies. A dedicated online platform was built to compare the newly developed Arabic symbols with existing English language symbols from the ARASAAC symbol set. Furthermore, the online platform allowed for a collection of votes and comments from evaluators, who helped towards selecting the final set

of Arabic symbols. The pool of evaluators consisted of Linguists, AAC users, Parents, Therapists, and Teachers. Multiple cycles of voting were conducted before deciding on the final set of symbols.

The dictionary contains more than 800 symbols designed in Qatar, and more symbols will be added to the project to expand the vocabulary that has been designed so far. The Arabic symbol set is now available for use at [www.tawasolsymbols.org](http://www.tawasolsymbols.org) along with the ARASAAC.

The free-to-use set, designed in Doha with the support of the Qatar National Research Fund (QNRF), has been expanded and is hoped to become part of the basic toolkit for those with language and communication. In 2017, Mada Center succeeded in adding 100 new symbols of new vocabulary to the current dictionary. We have also developed a package of educational resources, using Tawasol symbols, which will be used by different schools in Qatar.

## International Participations

Throughout 2017, a major part of Mada’s work involved towards the collection of PWDs related data in Qatar and presenting AT related Academic papers in international platforms. Mada presented a Scientific Paper titled “How Could Robots Improve Social Skills in Children with Autism?” in Information and Communication Technology Accessibility (ICTA) in Oman. Additionally, Mada also participated and presented in ALECSO App Awards closing ceremony held in Tunisia.

## International Best Practices

The efforts to promote a sustainable regional Assistive Technology market sector was complemented by initiatives to help build capacity to provide a nationwide accessible environment and stimulate the provision of assistive technology related services within the domains of Education, Employment and Community in Qatar. These goals were achieved by conducting a series of International Best Practice Studies aimed at improving the awareness of Disability Service Providers, Policy Makers, Professionals, Parents and Families of PWDs. The following areas were covered by the international best practice studies conducted in 2017:

- Accessible ATM and E-Kiosks
- Accessible Entertainment
- Cutting Edge AT Report
- Support High Functioning-Gifted Children with Autism in Education
- Support PWDs to Transition from Supported Education to Further Education or Employment
- AT for Supporting People with Learning Disabilities

All the best practice studies were translated into a comprehensive report designed for relevant professionals, in addition to a guide aimed for non-technical audiences. Mada intends to collaborate with relevant entities to utilize the guidelines provided by these studies for expanding the accessibility landscape throughout Qatar in collaboration with other relevant entities.

# The success Story of Mohammed Al-Jefairi

As part of Mada's collaboration with Stars of Science, Mada was part of the focus group and judging panel for the program. This involved offering expert advice, mentorship, and evaluation of the participants and their solutions. The outcome of this lead to an assistive technology solution being one of the winners in this regional event. Mohammed Al-Jefairi was chosen as the 4th place winner of Stars of Science for his project on Deaf Interactive Robotic Teacher, See-do.

Mohammed's solution, See-do, is an Interactive Robotic Teacher that interacts with students using sign language. The solution allows to pass on valuable training to children in an entertaining and engaging manner to help them learn sign language. See-do recognizes sign language with a specialized camera and software. The robots has a sign language library that can potentially be trained to recognize multiple languages including Arabic sign language.

Throughout the series, Mada offered active mentorship to Al-Jefairi to help develop the solution to be feasible and cater towards the PWDs needs in Qatar and the region. This was in line with Mada's commitment to support Qatari entrepreneurs interested in creating assistive technology solutions for the local market. Al-Jefairi is the first Qatari innovator to develop an assistive technology solution with the potential to be in the commercial market.



# Awareness

## Nafath

Our efforts to educate the community about issues related to PWDs, we launched our newsletter, NAFATH, with the aim of keeping our stakeholders and communities informed about assistive technology. Our digital newsletter is published every three months and is available online at [www.mada.org.qa](http://www.mada.org.qa) and there is also a printed version. NAFATH discusses our latest achievements, research, trends and insights into ways companies can become more accessible to PWDs. While the focus of our newsletter is on the region itself, we also look at international best practices and how we can learn from them to improve our offerings and enhance our community in respect to what it offers to PWDs.

## QITCOM 2017

Mada collaborated with the Ministry of Transport and Communication to launch the first Assistive Technology Hackathon competition within the CodeCamp event of QITCOM 2017. CodeCamp competition, in which teams of computer programmers and software developers from high schools, universities and professional coders competed to develop software solutions to set challenges in real time. CodeCamp had more than 450 applicants, 150 participants and 36 teams that competed to develop solutions related to the streams of: Smart Travel, Digital Transformation, Healthcare, and Assistive Technology. The event was concluded by awarding 4 winners (1 for each stream including Assistive Technology).

## Mada Awareness Campaign

Mada launched an awareness campaign in Qatar to raise awareness of the role of ICT in facilitating the integration of persons with disabilities into society. The campaign also aimed at raising awareness of Mada Center and the AT it provides, especially the Arabic one, in facilitating the lives of persons with disabilities and the elderly, and supporting them to overcome any obstacles to achieve independence. One of the objectives of the campaign was to educate persons with disabilities themselves about Mada's services and the benefits of assistive technology in all areas of life.

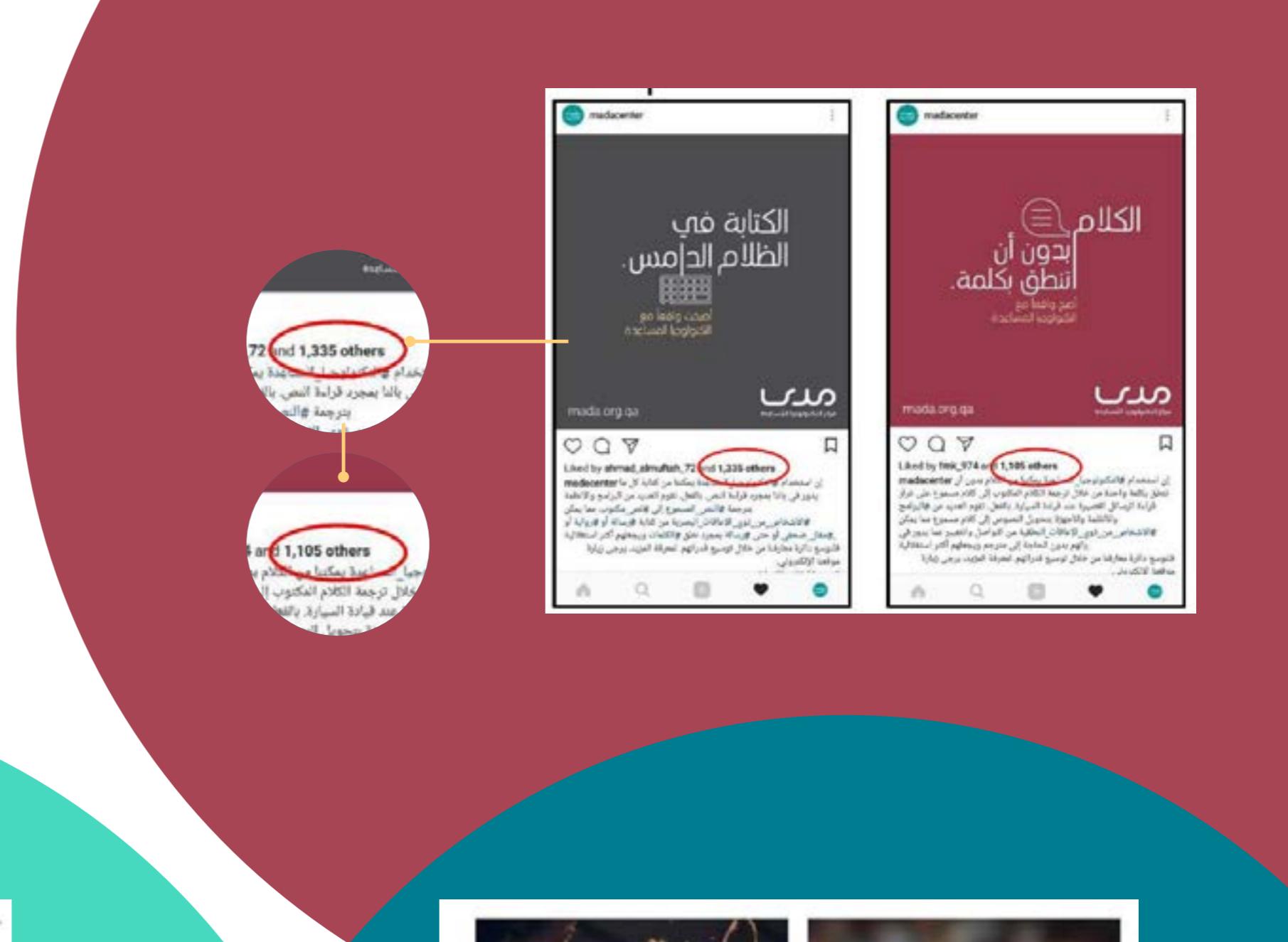
The campaign which continued for a month, was preceded by a two-week social awareness survey. A post survey was also conducted to measure the impact of the campaign on community awareness. It was clear that the campaign had achieved the desired results successfully, as it succeeded in doubling awareness.

Awareness of Mada Center, its role, services and target groups rose from 5% before the campaign to 14% after the campaign.

The campaign covered various social media platforms (YouTube, Facebook, Instagram) with awareness messages in various forms (photos, videos, posts). The campaign has reached more than 750,000 people.



The increase in the number of Mada's website visitors.





The campaign also used billboards in various locations of the city of Doha in order to target the largest number of the public.

Many messages and awareness video ads were posted in Doha's commercial centers.



The campaign also included placing ads and awareness messages in several Qatari newspapers and radio stations. Awareness video ads were also placed in various cinemas across Doha.



# Sponsors

## The Social and Sport Contribution Fund "Daam"

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The Social & Sport Contribution Fund



## Qatar Rail

The Official Sponsor

Qatar is a growing country, and to accommodate this growth, a new, sustainable, and efficient way of getting both people and freight around the country was needed. Established by Emiri decree in 2011, Qatar Rail was given the mandate to design and develop the country's rail network, and after the rail projects are completed, manage, operate, and maintain them.

Qatar Rail's answer to Qatar's transportation challenges lies in three major projects:

- The Doha Metro: a mostly underground rail network which connects communities within Doha and its suburbs.
- The Lusail Tram (LT): a tram network providing comfortable and convenient travel within the new city of Lusail.
- The Long Distance Rail: connecting cities in the north and west with Doha, and the country with the forthcoming GCC rail system.

Once all the projects are completed by 2030, the three networks will act as one integrated system, allowing passengers to easily transfer between them.

## Qatar Airways

Gold Sponsor

Qatar Airways, the national carrier of the State of Qatar, is celebrating 20 years of Going Places Together with travelers on its modern fleet of 200 aircraft across its more than 150 business and leisure destinations. A multiple award-winning airline, Qatar Airways was awarded World's Best Business Class; Best Business Class Airline Lounge and Best Airline Staff Service in the Middle East at the prestigious 2016 World Airline Awards managed by international air transport rating organization Skytrax. Qatar Airways is a member of the Oneworld global alliance. The award-winning alliance was named the World's Best Airline Alliance 2015 by Skytrax for the third year running. Qatar Airways proudly supports a range of exciting international and local initiatives dedicated to enriching the global community that it serves. Qatar Airways, the official FIFA partner, is the official sponsor of many top-level sporting events, including the FIFA 2018 and 2022 World Cups.



## AECOM

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AECOM is built to deliver a better world. We design, build, finance and operate infrastructure assets for governments, businesses and organizations in more than 150 countries. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated and vital. A Fortune 500 firm, AECOM had revenue of approximately \$17.4 billion during fiscal year 2016. See how we deliver what others can only imagine at [aecom.com](http://aecom.com) and @AECOM.



## Malomatia

Silver Sponsor

Malomatia is driven by Qatar's National Vision 2030 of economic transformation to create a sustainable knowledge-based economy. To meet Qatar's future IT requirements, malomatia has aligned its goals to support national objectives in delivering integrated IT services and solutions.



# Partners



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General Retirement & Social Insurance Authority



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