Best **Practices** In **Accessible** Events

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About Mada

Mada Center 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 meets the needs of persons with functional limitations (PFLs) – persons with disabilities (PWDs) and the elderly in Qatar. Mada today is the world's Center of Excellence in digital access in Arabic.

Through strategic partnerships, the Center works to enable the education, culture, and community sectors through ICT to achieve an inclusive community and educational system. The Center achieves its goals by building partners' capabilities and supporting the development and accreditation of digital platforms in accordance with international standards of digital access. Mada raises awareness, provides consulting services, and increases the number of assistive technology solutions in Arabic through the Mada Innovation Program to enable equal opportunities for PWDs and the elderly in the digital community.

Vision

Enhancing ICT accessibility in Qatar and beyond.

Mission

Unlock the potential of persons with functional limitations (PFLs) – persons with disabilities (PWDs) and the elderly - through enabling ICT accessible capabilities and platforms.

I.
Executive
Summary

Events such as conferences, festivals, annual meetings, award ceremonies, fundraisers and seminars are an important part of the lives of many people including persons with disabilities and the elderly. Thus, it is important to ensure that such events are planned and organized in an accessible and inclusive manner to meet the needs of all visitors and participants.

Nowadays, the advancement of Information and Communication Technologies (ICT) has revolutionized the lives of Persons with Disabilities (PWD) and the elderly around the world by offering them with unprecedented levels of access as well as the opportunity to participate in the economic, cultural and social life of their communities. Therefore, and regarding the main theme of this report, ICT (Information and Communication Technology) is positioned as a fundamental tool to make life easier and cover the specific needs to improve the overall experience of visitors with disabilities during physical and virtual events.

Despite their significant contribution, ICT and technological advancements on their own cannot bridge the inclusion gap faced by persons with disabilities . This is because their use and adaptation to enhance inclusion are dependent upon other factors such as policies, support from various stakeholders, and public awareness of the importance ICT accessibility and the impact it has on the lives of persons with disabilities and the elderly.

This document aims to help organizations to make events more digitally accessible for persons with disabilities who may be attending as presenters, participants, or sponsors. It provides guidance on how to ensure ICT Accessibility before, during and after the event, offering a set of best practices adopted internationally and locally with reference to the topics outlined in the CPRD policy framework that will open up a section of a potential market that is often overlooked and help to meet existing legal responsibilities of the organizations from an ICT perspective.

II.
Introduction

This section starts with a definition and overview on accessible events and discusses its importance from human rights perspective. The section also outlines several barriers that obstruct persons with disabilities from accessing and participating in events.

1. Definition of an Event

This document the term 'event(s)' is used to cover the broad range of functions such as exhibitions, conferences, awards ceremonies, Annual General Meetings, film festivals, fundraisers, outdoor concerts, and local community street fairs.

The document uses the term 'event organizer' to describe the person or organization hosting the event.

2. Definition of Disability

2.1 Disability[1]

A physical, mental, cognitive, or developmental condition that impairs, interferes with, or limits a person's ability to engage in certain tasks or actions or participate in typical daily activities and interactions.

2.2 Who are persons with disabilities?

In this model, the individual model definitions of impairment and disability are combined as 'impairment'. This means that both the cause of functional limitation and the functional limitation within the individual itself are separated from external factors. The range of impairments is broad, including sensory, mobility, specific learning, or health difficulties.

[1]https://glossary.mada.org.qa/glossary/disability/

When we think of disabilities, we tend to think of people who use wheelchairs and who have physical disabilities that are visible and obvious. But disabilities can also be non-visible. We can't always tell who has a disability. This document uses the term "people with disabilities" rather than "disabled people".

3. ICT Accessibility[2]

Also known as e-Accessibility or Digital Accessibility is the practice of offering equal access to content on the World Wide Web for persons with disabilities by designing websites and web platforms to adhere to specific technical standards.

4. Assistive Technology[3]

Any item, software, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.

5. Barriers obstructing access

Some people see disabilities as the barrier, but actually it's the environment that presents barriers. For many disabled people, access is restricted by more than just physical barriers. Barriers can be cultural, economic, attitudinal, or organizational.

When you think about accessibility, it's important to be aware of both visible and non-visible barriers. For example, physical or structural barriers, such as stairs or doorways, often come to mind first. But sometimes a certain process or policy can create barriers unintentionally. For instance, providing information in a format that may not be accessible to everyone can create a barrier. In addition, attitudinal barriers that stem from the way people think or behave can be based on stereotypes or simply lack of understanding.

[2]https://glossary.mada.org.qa/glossary/ict-accessibility/
[3]https://glossary.mada.org.qa/glossary/assistive-technology/

III.
Laws, Regulations and Policies

1. Legislation on disability in Qatar and the implementation of UNCRPD

The State of Qatar has been taking important steps to promote and protect the rights of persons with disabilities by establishing laws and regulations as well as programs that aim to empower PWDs and provide them with the necessary facilities, information resources, and services to support their needs. The Permanent Constitution of the State of Qatar[4] guarantees people equality before the law and that there is no discrimination among them on the basis of gender, origin, language or religion. The Constitution protects all citizens against violence and abuse with no discrimination against persons with disabilities.

Besides, on a national level, there are various legislative and governmental initiatives in place to promote persons with disabilities, these include but are not limited to the following:

1.1 Law No. 2 of 2004 in respect of People with Special Needs

The reference law covering the needs of persons with disabilities in Qatar is law No. 2 of 2004 in respect of People with Special Needs[5]. This law set the ground for the recognition of the rights of persons with disabilities in Qatar, and regulates aspects of education and health, as well as economic and social aspects concerning persons with disabilities. It also covers some rights such as the participation in sports and entertainments, the provision of accommodation for safe and secure movement and securing of special facilities in public places.

[4]https://almeezan.qa/LawView.aspx?opt&LawID=2284&language=en
[5]https://almeezan.qa/LawView.aspx?opt&LawID=246&language=en

1.2 The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD)

The United Nations Convention on the rights of persons with disabilities[6], UNCRPD, was adopted in 2006 and was ratified by Qatar in 2008. According to the United Nations, the convention is intended to 'promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity'.

The UNCRPD guides and enhances the understating of significance of accessibility in allowing equal opportunity to persons with disabilities. Accessibility allows persons with disabilities to 'live independently and participate fully in all aspects of life'. The convention set the standard for understanding and implementing the rights of persons with disabilities globally.

The UNCPRD comprises a political and legal commitment of the international community to include the perspectives of persons with disabilities and the disability concept in development and other societal aspects. The UNCRPD requires the state parties to protect and promote the human rights of persons with disabilities and ensure they can lawfully enjoy these rights. Additionally, the parties are required to promote and facilitate full equality of persons with disabilities under the law. Article 9 of the convention focuses on accessibility.

1.3 Social Development Goals (SDGs)

Beyond the UNCRPD, the State of Qatar is also committed to the UN Sustainable Development Goals (SDG). The sustainable development goals (SDGs) are a collection of 17 global goals set by the United Nations General Assembly in 2015 for the year 2030. The SDGs are part of Resolution 70/1 of the United Nations General Assembly, the 2030 Agenda.

The SDGs make specific reference to disability and accessibility and provides strategic roadmap for the implementation of policies and programs in this field.

The following is a list of the SDGs that supports this topic:

- **Goal #10**
  Reduce inequality within and among countries – specifically mentions, "By 2030, [states must] empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status."

- **Finally, Goal #11**
  Make cities inclusive, safe, resilient and sustainable – encourages policy makers and service providers to work together in a manner that, "by 2030, [cities will] provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities."

[6]https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html

1.4 The National ICT Accessibility Policy

Following Qatar's National Vision 2030, the country aims to become a knowledge-driven economy, being committed to the development of an ICT-skilled population, focusing on vulnerable groups, especially women, the elderly and citizens with disability. The Qatar's eAccessibility Policy[7], published in November 2011 by the Supreme Council of Information & Communication Technology, which encourages organizations to support and empower persons with disabilities and the elderly in several aspects, including ensuring access to digital platforms, which include websites, mobile phone applications, digital documents, electronic kiosks, media materials in order to enjoy independent living and to guarantee fundamental freedoms equally with others, in line with the UNCRPD.

[7]https://www.motc.gov.qa/en/news-events/news/ictqatar-introduces-national-e-accessibility-policy

IV.
Accessibility and Visitor Journey

before ▸ during ▸ after

before

- Venue Accesibility
- Publicity
- Registration
- Individulal specific requirments
- Additional support requirments
- Booking confirmatio
- Accessible platforms
- Accessible Formats

during

- Signage
- Registration
- Seating
- Printed Materials/ Alternative Formats
- Web Technologies
- Assitive Technologies
- Support staff
- Medical Support
- Refreshments
- Emergency Evacuation

after

- Accessible event information (handouts, presentations if applicable)
- Access to related information
- Certificates
- Audience / Visitors Feedback
- Organisers Evaluation for future events

Figure 1
Summary of visitor journey

This section of the guide will examine and explain the factors that should be taken into consideration when planning and running an event, specifically in terms of ICT accessibility. If the needs of people with disability are taken into consideration at the planning stage of an event it is more likely that the event will be accessible, and thus significantly decrease the potential problems faced by the organizers.

1. Event Planning and administration

1.1 Venue
- Conference venue providers are responsible to provide accessible facilities and services (physical and digital) to ensure full access for persons with disability.

- During the planning phase of an event, the organizers should ensure that the selected venue provides accessible facilities to address any potential issues that may be encountered by persons with disabilities. Therefore, if any issues were encountered, it should be discussed with the provider during the planning phase for the event in order to provide reasonable arrangements to accommodate the needs of all visitors.

In addition, when choosing a venue, organizers should consider its access aspects as follows:

- The accessibility of toilets, lifts, refreshment areas and other venues being used during the event, and their proximity to the meeting or function rooms being used for the event.

- The entrance accessibility for people with physical disabilities, and the ability for wheelchairs users to use ramped access routes independently.

- The availability of trained staff in disability and accessibility awareness, and the designation of accessibility support staff to assist with any issues during the event.

- The availability of accessible car parking, preferably on site and close to the entrances (within 50m) for people with physical disabilities, and whether the route and entrance from the car park are clear and accessible.

1.2 Planning the event schedule and program
- It is important to allow for margins of flexibility within a proposed event time schedule to consider any changes. The specific and individual needs for the delegates with disability may affect their ability to adhere to the time schedule as they might require additional time to move between rooms and sessions and may need more frequent refreshment breaks. In addition, organizers need to take into consideration that support workers, such as Sign Language Interpreters, may as well require regular breaks and changeovers to ensure their comfort and efficiency.

- Organizers must check whether any assistive solutions or services are required in the sessions planned, for instance audio description, sign language or aother technological devices.

1.3 Speakers, facilitators, and exhibitors
Organizers should arrange for a meeting with speakers, facilitators, and exhibitors to outline the expectations prior to the event. This includes the following:

- Content created should comply with the ICT accessibility standards or is available in an alternative accessible format.

- Electronic copies of the content could be shared with delegates in advance if required.

- Speakers are fully aware and informed about best practices in delivering information and dealing with persons with disability.

- The needs of speakers and facilitators must be accommodated if required, For example, providing a personal assistant, or an interpreter or any assistive technology device.

- All front desk staff, including volunteers should be trained on how to deal with persons with disability and the elderly.

2. Pre-event information

2.1 Event marketing and publicity

- When publicizing an event, organizers must consider the following:

- Ensuring that all publicity information is clear, simple, and understandable.

- Including an accessibility statement in all materials announcing the event, whether through email or print materials.

- Ensuring that the platform used to publicize the event is fully accessible and usable by persons with disability and the elderly, and that all webpages comply with international accessibility standards (WCAG 2.1).

- Arranging with PWDs to conduct user testing on digital platforms to make sure it meets accessibility criteria.

- Circulating information to disability-related institutions and networks to guarantee their attendance and participation.

- Providing event details early to enable attendees and participants to make accessibility arrangements if required. A contact person should be appointed to be contacted if any accommodations are required.

2.2 Accessibility-related information

It is important that organizers inform their audience regarding any accessibility and support facilities, or services provided at an event such as:

- Venue accessibility (E.g., accessible entrances, accessible toilets, accessible ramps, wheelchairs, lifts, assistive devices).

- Details of reserved, accessible parking.

- Clear maps and directions including access routes into and between buildings. Also, whether an accessible wayfinding system is available.

- Accessible transportation available. (For instance, accessible taxi, accessible public transport)

- Residential accommodation

- Other support facilities such as sighted guides, SL interpreters, or personal assistants.

2.3 Registration arrangements

- If registration is required to attend or participate in an event, the registration form must include a comments field to allow people to request their required accommodation. For example, personal support, access or dietary requirements.

- Once a participant has informed organizers about their needs and requirements, they should contact them to clarify their specific requirements for the event, and inform them whether their needs will be accommodated or cannot be arranged.

- Alternative registering options should be provided. (E.g., online, email, text, phone).

- The booking confirmation should be sent to applicants in accessible alternative formats.

2.4 Personal assistance and support workers

- Identify suppliers of professional support worker services and book them in advance.

- Consider the number of staff needed depending on the event schedule and activities.

- Provide copies of any content and materials in advance to allow support workers and interpreters to be prepared for the sessions.

- Support workers need to have badges with their names if possible to be easily identified at an event.

- Allocate seating in a suitable location for support workers.

2.5 Specific support worker issues

- To identify the type and number of support workers needed at an event based on the specific needs and requirements which have been requested by delegates during registration. Types of support workers may include Sign Language Interpreters, Lip speakers or Palantypists, note takers, and personal assistants.

- Ensure that all logistic and technical requirements of the support workers are provided (E.g., Suitable lighting, screens, power sockets).

- All support workers should be aware of their role and trained on the task they are expected to perform during the event.

2.6 Assistive Technology

Provide a range of assistive technology devices to support persons with disabilities during the event. Examples of assistive technology devices may include:

- Assistive hearing aids systems
- Accessible Information and Computer Technologies
- Communication devices
- Magnifiers
- Height adjustable stands or tables.

3. Planning Support During the Event

3.1 Signage
Organizers should ensure that all printed and digital signage meet the following:

- Displayed clearly in a high contrast format (printed in dark lettering on light background).

- Follows the document accessibility standards in terms of font type, style, and size (large print, with initial capitals and lower-case text, avoiding block capitals)

- Displayed at an appropriate height that is accessible to wheelchair users (Recommended height: 1400-1700mm or 55-67inches).

3.2 Registration

- Ensure that staff at the registration desk are trained on how to deal with persons with disabled participants.

- Ensure that registration staff are fully briefed about the additional accommodations requested. For instance, making sure that sign language interpreters are introduced to persons with hearing impairments.

- Ensure that any materials distributed at registration are provided in an alternative accessible format.

- Ensure that all names on badges are printed in large fonts, clear and accessible.

3.3 Audio Description

- Audio descriptions are extra audio commentary that explain what is happening in the screen. Audio description techniques include using pauses in speech to describe the scene, characters, costumes, gestures, etc. The described video is normally created as post-production using specialized audio-processing software to add commentaries, but it can be also planned during pre-production (e.g., creating the description besides the program script) or delivered live (e.g., a professional interpreter describes live events or news).

- The reception of audio description normally needs that broadcasters and video service providers uses a second audio channel, that users can activate with the appropriate equipment.

- This service is primarily aimed at visually impaired and blind users, but other profiles could also benefit from providing extra details verbally, such as people with cognitive impairments, learning difficulties and the elderly.

3.4 Subtitling & Captioning

- Subtitling is the synchronized provision of text on the screen that represent speech. They are often presented in a language other than the one used in the original video, so that it can accommodate the different languages understood by the audience.

- Captioning is used to provide an alternative representation of audio in the language of the audience, and includes both speech and the descriptions of sound effects, music, laughter, screams, etc. Captions are provided using distinct colors to differentiate who is speaking and use background colors that do not interfere with the scene.

- The main difference between subtitling and captioning is that subtitles are produced assuming that the audience can hear the audio but does not understand the original language, while captions are produced assuming that the audience does not hear the audio and need a textual alternative to both speech and sound.

- There are two types of captions considering how they are produced, stored, and delivered:

  - Open captions
    Text is superimposed or burned-in the original recording, so they are 'open" for all audiences who are watching the video regardless of whether they need them.

  - Closed captions (CC)
    In this system, captions are transmitted as data and delivered through a different channel than video, so they can be switched in or out according to users' preferences by using TV control or specific interactive elements.

3.5 Seating

- Ensure there is a variety of choices of seating locations and enough space in corridors and between rows for wheelchair users to navigate easily. This applies to all sessions, breakout rooms and catering facilities.

3.6 First aid and medical support

- Ensure that all staff are aware of the location and services of first aid stations.

- Appropriate intervention needs to be taken on spot by the responsible medical staff in case a medical emergency occurs.

3.7 Refreshment areas

- If possible, provide moveable and adjustable tables and chairs to ensure there is enough space between seating areas and adequate room under dining tables to accommodate wheelchair users.

- Ensure the availability of adjustable tables in the refreshment area are situated at accessible locations.

- Ensure that menus are available in alternative accessible formats.

- Ensure that food and beverages are labeled and provided in a variety of options and sizes considering specific dietary requirements and reported allergies.

- Ensure a variety of cutlery types are available.

- Ensure the availability of stewards responsible for serving if need.

3.8 Emergency evacuation

- The evacuation plan must be communicated to all staff in advance and all delegates must be briefed on their roles and responsibilities during the evacuation.

- All emergency announcements must be communicated in accessible formats (E.g., audio announcements for the blind, and flashing alerts for the deaf)

4. Post-event information

- After the event, all materials such as event papers or presentations, should be made available electronically in an accessible format.

- Feedback forms and evaluation surveys should be created in an accessible manner and shares through appropriate platforms.

- Certificates should be shared electronically and in an accessible manner to ensure everyone can access them.

V. Producing Accessible Content

1. Printed Materials

1.1 Text style format

- The font selected should be easily read with clearly defined letters and spacing between the letters. Examples of accessible fonts that can be used are Verdana, Arial, and Helvetica.

- Text size should be at least 12 point or larger.

- Avoid the use of text written in all capitals as it is usually difficult to read.

- Avoid the use of italics and underlined text.

1.2 Color and contrast

- There should be a good contrast between the font color and background color.

- Using cream paper instead of white can improve the readability of a document as the glare is reduced.

- Avoid using textured or patterned background and use a single color instead.

- Avoid using pink, red or green paper. If colored paper should be used, use pastel blue or yellow.

1.3 Layout and structure

- Ensure that text is always left-aligned on the page and not centralized.

- To improve navigation, avoid using long blocks of continuous text, instead break it up with smaller paragraphs and headings.

- Ensure that URLs in a printed document are not hyperlinked, as underlined text is not readable.

1.4 Language

- keep the sentences short, clear, and concise.

- Avoid using too many words and complex words.

2. Event website accessibility

2.1 Adherence to guidelines

- Recommended Guidelines: WCAG 2.0 Referenced in both Section 508 and ETSI EN, WCAG 2.0 is a standard that covers a wide range of recommendations for making web content more accessible. The guidelines are intended to make web content and applications accessible, including on mobile devices, to a wider range of persons with disabilities. Further to that the WCAG has published updated guidelines since the release of both Section 508 and ETSI EN. The current published version is WCAG 2.1[8] and similar to WCAG 2.0 it covers elements of Accessible Guidelines for developing web content and services.

- It is recommended that a web accessibility statement or policy is developed. This may include the level of conformance aimed for, or any actions taken toward accessibility.

- Ensure to include users with disabilities in the testing and validation process.

- The website should indicate a point of contact in case anyone facing accessibility issues.

[8]https://www.motc.gov.qa/en/news-events/news/ictqatar-introduces-national-e-accessibility-policy

VI.
Examples of Innovative Technological Solutions

1. Accessible Wayfinding and Navigation

"Wayfinding" is how people orient themselves in physical space, plan a route and navigate to a desired place (Miñano, 2017) (Ahn, 2017). Indoor wayfinding encompasses all the tools people may use in an indoor environment to do this including cognitive mapping (knowing the route by heart), signage, maps, directions, or instructions provided, digital tools and supporting infrastructure, landmark orientation (visual, sound, tactile or smell) or other personal, digital or physical guidance. The key elements addressed by wayfinding technologies are to help individuals orient themselves within a specific location by attaining information about:

- Where the user is currently at?
  Current location and orientation

- How does the user get to the desired destination?
  Route decision

- Is the user on the right path to reach desired destination?
  Route monitoring

- Has the user arrived at the accurate desired destination?
  Destination recognition

Wayfinding includes three ecosystems that frame any solution. These are most successful when they are well aligned to produce a robust, consistent, adaptive and inclusive environment. These are:

- People
- Information/Data
- The Physical Environment

Accessible wayfinding provides a combined people, information, and physical ecosystem for all individuals to navigate through an environment, regardless of their functional limitations and disabilities. If an environment makes it difficult or

impossible for PWDs and the elderly to orientate, route find and navigate safely and independently then it has not got an effective accessible wayfinding system. This may occur because information or parts of the wayfinding ecosystem are not available, perceivable, understandable, adaptable, usable or robust enough for all user groups and needs.

The use of accessible wayfinding systems can greatly enhance the ability of PWDs and the elderly to navigate within a given environment, and is particularly useful in events and conferences to guide the visitors and enable them to move around independently. Multiple groups of PWDs can benefit from the implementation of accessible wayfinding systems. These groups can include individuals with the following types of disabilities and needs:

- **Vision impairments** including people who are blind, partially sighted or have color perception deficiency

- **Hearing impairments** including people who are deaf or hard of hearing

- **Restricted Mobility** including people who are wheelchair or mobility device users, have limited stamina, limb loss or loss of limb function or other mobility limitations

- **Neuro-diverse people** who perceive and process information in different ways, those with reading or language processing difficulties, autism or sensory overload, memory challenges or other ways in which people think or understand differently

- **Mental health** including people who have depression, anxiety or other mental health conditions that make them feel anxious when facing the unknown

- **Communication challenges** such as people with a speech impediment, physical or cognitive inability or limitation, social limitation or preference not to speak.

Accessible Wayfinding technologies and systems can also further benefit users who have temporary and situational access needs such as:

- People who are injured and have reduced mobility

- People who are unwell and have reduced stamina

- People with luggage or bags

- Parents or others with children still in prams

- People who are not native speakers of the language/s of the signage and solutions

- People who are very tired, stressed or feeling mentally or emotionally overloaded

- People receiving information in an area with poor lighting, that is noisy or distracting

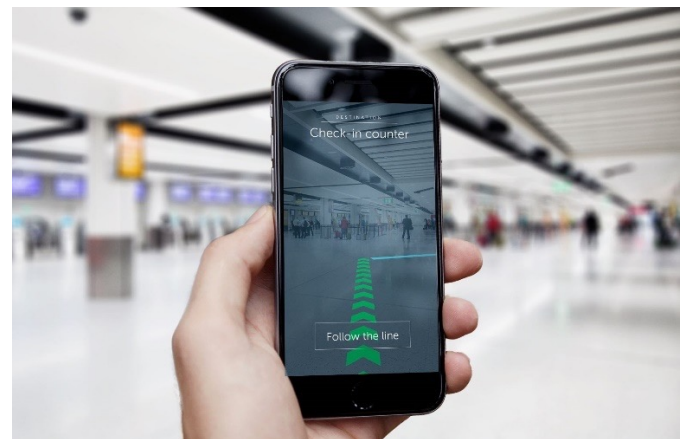- Friends, family members and carers of people with a disability

Figure 2
A mobile phone screen displaying the use of an accessible wayfinding mobile app

Accessible Navigation and Wayfinding Technologies often include all data used in a digital format that supports orientation, route finding, navigation, monitoring and route management as well as the tools that enable this. It is usually operated through an interface available within a mobile app or website to help them navigate within the station.

The overall system consists of a combination of hardware and software (e.g. mobile app) that communicate with each other to gather and pass on real-time orientational and spatial data of the user. In terms of hardware, systems can includes devices such as proximity sensors, beacons, digital kiosks and digital lift or door interactions as well as personal hardware such as mobile devices, wearables, smart (connected and responsive to data) and personal mobility devices. In terms of software, it includes all code and algorithms specifically designed, developed or integrated into the overall wayfinding system for users to be able to perceive, access, interact with data, or add new data to it.

Accessible Navigation and Wayfinding Systems must comprise of the following elements:

- Maps to show spatial relationships between one's current location and destination; identify routing options; provide an abstract means to assess overall trip progress.

- Audio real turn by turn instructions to guide travelers with visual impairment.

- Schedules to provide temporal information about route availability at a given day and time.

- Landmarks to confirm global progress and anticipate important events or tasks that will come next.

- Signages to understand the local environment, including: current location, where to where to pay; etc.

- Clocks to synchronize schedules with physical events. For instance session times.

An effective accessible wayfinding system can allow PWDs and elderly users to perform activities like independently navigate through Railway & Metro Stations. Additionally, it enables them to independently perform all related activities like booking tickets, locating, and navigating to relevant locations, keeping track of the movement towards their destination in real-time.

2. Robotics

Customer service robots have become a very eye-catching thing in some places around the world. China is a big believer in automation on customer service. Everyone all around the world uses customer service robots. Whether you think you do or not, you have used at least one robot in your lifetime. Everyone uses ATM's every single day to take cash out or to out cash into their bank accounts. The robot takes your card and you press a few buttons and select deposit or withdrawal and just like that, you are done! Some are becoming very weary of customer service bots while others think they are very helpful and not as time consuming as it would be to go into an establishment and speak with an actual person.

Figure 3
Tour Guiding Robot

These things really depend on what generation you are looking at. The younger generation love customer service bots because they enjoy processes that are quick and don't involve talking to anyone they don't have to. The older generation however would rather go inside a bank or another establishment and talk to a person face to face because they believe that they get a better experience and visit this way. Some examples of customer service robots would be things like Uber or Airbnb. These companies work through

a hands off interface and you can book a ride or a place to stay in minutes without even having to have social interaction with a person. Customer service robots are making experiences better and making many processes run smoother because they have the advantage of just a few clicks, and you are all set and ready to go.

3. Sign Language Avatars

Over the years, there have been important advances in computerized sign language production, both at academic research and commercial product and services.

Nowadays, sign language interpretation can be performed through realistic 3D avatars that interpret in real time written text to Sign Language, taking in consideration all components of Sign Language (hand movements, hand shapes, facial expression, body movements, eye gaze, etc...). These avatars can be added to any website or pre-recorded at events.

However, it is important to note that these technologies do not replace human interpreters. Below is an example of a sign language avatar (Bu Hamad, developed by MADA Center[9]).

Figure 4
Buhamad Sign Language Avatar

[9]https://www.motc.gov.qa/en/news-events/news/ictqatar-introduces-national-e-accessibility-policy

VII.
International and Local Best Pratices

This section shows a compendium of local and international best practices in the field of accessible events from an ICT perspective.

1. Tokyo Olympics and Paralympics Accessibility guidelines (Japan)

The Tokyo Organizing Committee develop a wide range of measures to ensure they deliver a fully inclusive Games that are accessible to everyone - regardless of physical or intellectual impairment. A Handbook to Accessibility Support was delivered, which can be used by all staff at the Games. The guidelines include generic accessibility information, together with info on ICT accessibility requirements (websites, public phones, electronic documents, audio and video contents and devices, etc.).

Tokyo 2020 – Accessibility / Paralympics Tokyo 2020

2. Accessibility at FIFA Russia World Cup (Russia)

In all eleven cities with stadiums, accessibility projects were implemented with the support of the Center for Access to Football in Europe to provide an accessible environment for persons with disabilities. A Spectator Accessibility Guide was published.

To ensure the accessibility and safety of transport in several cities (including St. Petersburg, Rostov etc.) sports and social facilities were equipped with a system of radio information and sound orientation of visually impaired and other reduced-mobility groups.

FIFA Russia 2018 Spectator's Accessibility Guide
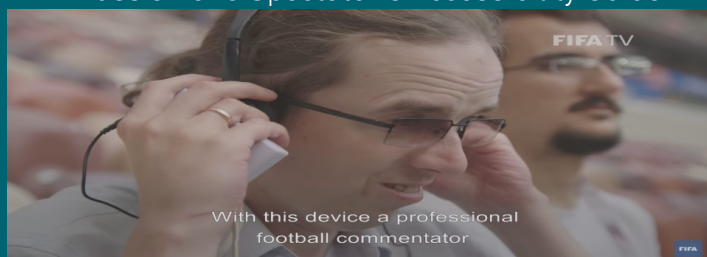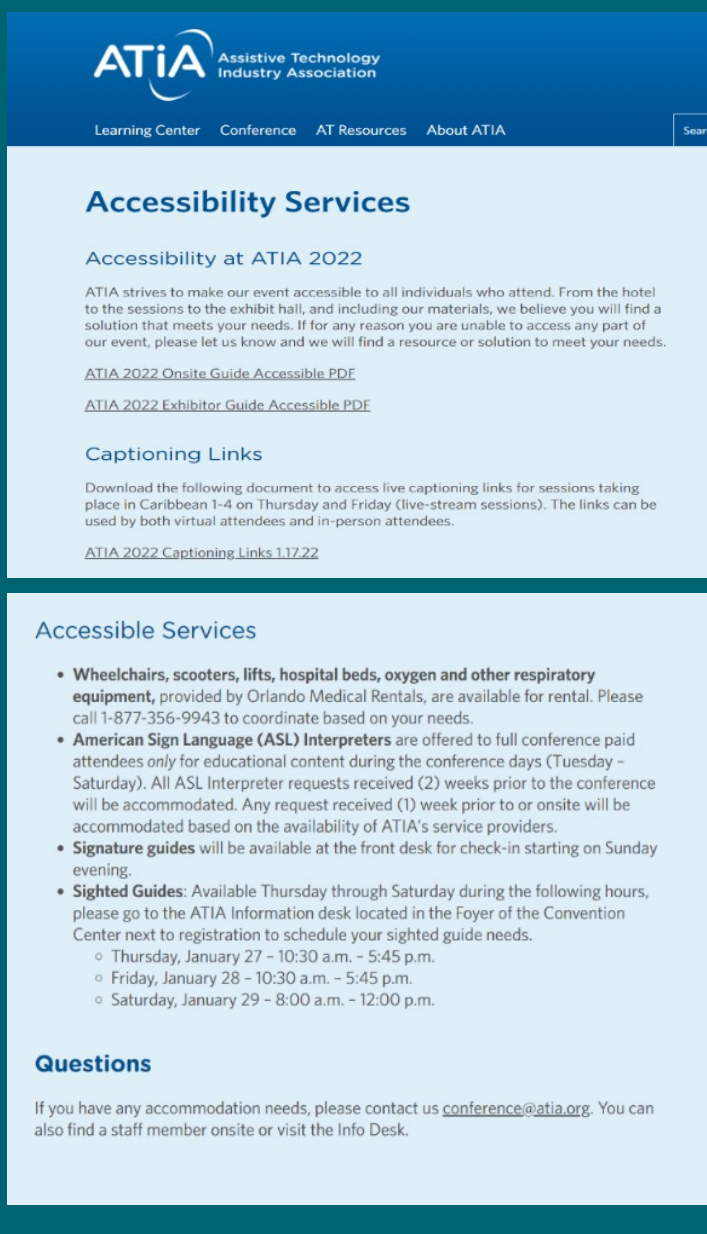
3. Assistive Technology Industry Association (ATIA) 2022 Conference Accessibility

The Assistive Technology Industry Association (ATIA) conference 2022 offered a range of accessibility services to serve persons with disabilities. These include:

• Live captioning services for the sessions

• Sign Language Interpreters for deaf attendees

• Accessible wayfinding system to help blind and sighted visitors to navigate around easily

• Wheelchairs, scooters, lifts

https://www.atia.org/accessibility-services/

4. Smart City Expo World Congress (Barcelona)

The Smart City Expo World Congress offers the following accessibility services:

- Electric scooters available for people with reduced mobility.

- Reserved spaces for wheelchairs/electric scooters in the food courts and in the audience of all Congress rooms.

- Guided tour available for people with visual impairment.

- Full accessibility in all areas of the venue.

Smart City Expo World Congress
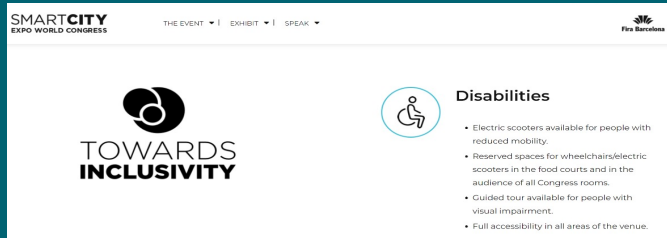

5. FIFA Arab Cup (Qatar)

The Supreme Committee for Delivery and Legacy (SC) has provided audio description service for fans with visual impairments in the matches hosted by Al Bayt Stadium and Education City as part of the FIFA Arab Cup 2021, which was held in Doha.

audio descriptive commentary has been provided at the FIFA Arab Cup™

6. Jewellery Exhibition (Qatar)

The Doha Jewellery and Watches Exhibition in cooperation with MADA center has introduced an inclusive customer service desk dedicated to serve the needs of visitors with disability and the elderly to provide an inclusive visitor journey and to improve the overall retail experience. The area was supervised with a trained team to facilitate the use of assistive technologies for anyone that needs it.
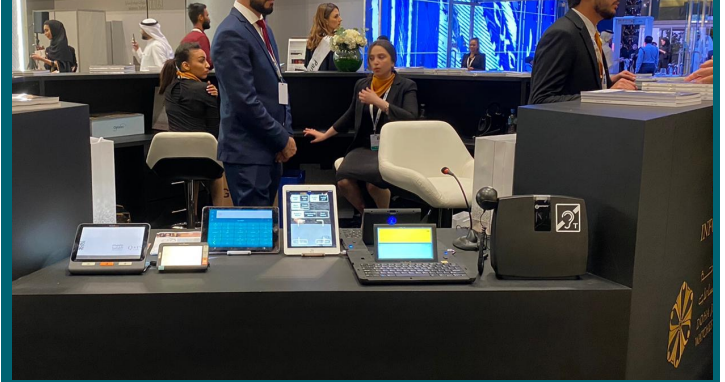
VIII.
Appendix

Event Accessibility Checklist by MADA

https://ictaccess.mada.org.qa/tips-tools/top-ten/

To Access the full checklist for Accessible design by the American Disability A, follow the link bellow

https://www.adachecklist.org/doc/fullchecklist/ada-checklist.pdf

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