

## ITU Regional Development Forum for Europe (RDF-EUR)

### Information and Communication Technologies for Attaining Sustainable Development Goals

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<https://www.itu.int/en/ITU-D/Regional-Presence/Europe/Pages/Events/2019/RDF/Regional-Development-Forum.aspx>

#### TITLE: GLOBAL ACCESSIBILITY REPORTING INITIATIVE (GARI)

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#### Europe Regional Initiative:

- x EUR3: Accessibility, affordability and skills development for all to ensure digital inclusion and sustainable development

Year(s) of implementation: x 2019 x 2020 x 2021

#### Background

The Mobile & Wireless Forum (MWF) established the Global Accessibility Reporting Initiative (GARI) project in 2008 to provide information on the accessibility features within mobile phones and to help consumers identify devices that supported those features. The GARI site ([www.gari.info](http://www.gari.info)) features an evolving searchable database that currently has information on more than 120 accessible features in over 1,500 devices including mobile phones, tablets, accessibility related mobile applications, Smart TVs and Wearables. The database is available in 18 languages and is currently being actively used by governments, regulators, civil society, universities and industry bodies in 26 countries.

GARI's mission is to inform consumers about existing accessibility solutions in the market today and help them identify devices with features that best meet their individual needs. This includes mobile phones with built-in screen readers, 'simple access' for persons who find the user interface overwhelming, Wearables with haptic feedback, Smart TVs that allow voice recognition for accessing features, or mobile apps that have been developed specifically to help overcome a barrier in daily life like finding accessible locations.

Countries who have signed the UN Convention on Rights for Persons with Disabilities have committed to "enable persons with disabilities to live independently and participate fully in all aspects of life. [...] States Parties shall also take appropriate measures: [...] to promote access for persons with disabilities to new information and communications technologies and systems, including the Internet." (UNCPRD, Article 9, <http://www.un.org/disabilities/convention/conventionfull.shtml>)

Over the last decade, mobile telecommunication devices have become a popular means of accessing ICT services and the proliferation of mobile phone use and the panoply of features that modern devices can offer, make it possible for mobile telecommunications devices to become the gateway to a more accessible society for everyone.



While many devices today include a variety of accessibility features, a majority of users and in particular those who would benefit most from these features including persons with disabilities and older users, very often do not know about it. The need for better information on available solutions as well as education of users and digital capacity building is a recurring theme and reconfirms that having one central source of information on accessible devices is very much needed.

The GARI database intends to fill this gap. We work with governments and regulatory authorities around the world, providing them with a comprehensive overview of accessibility features available in today's devices and offer them a platform where their citizens can learn about existing solutions and select a device best suited to their needs.

### Proposal

The Mobile & Wireless Forum (MWF) offers governments and organisations around the world the use of the GARI database, in order to inform their citizens and constituencies about the wide range of existing accessibility features in today's ICT devices and help them find and select a device that best suits their individual needs.

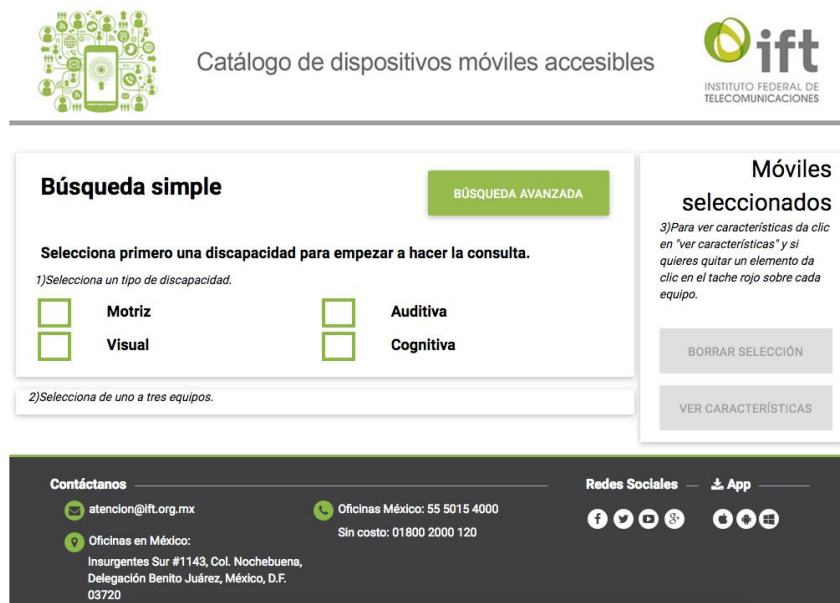
Interested parties can link or reference GARI from their website or include the GARI search interface into their website via iFrame. The MWF also makes the GARI dataset available for organizations wishing to feature GARI within their own websites and in their own design. The dataset is available as an XML file that is updated on a daily basis. The dataset is licensed under a Creative Commons License<sup>1</sup>, and is available to governments free of charge.

Several governments and regulatory authorities have chosen this way, including the Mexican Instituto Federal de Telecomunicaciones (IFT)<sup>2</sup>:

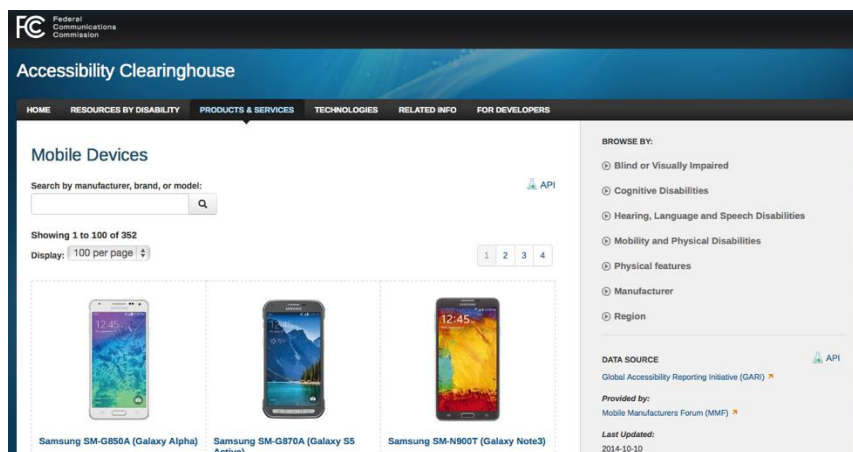
<sup>1</sup> See <http://www.gari.info/download-gari-db.cfm> for more information and the terms of the Creative Commons License.

<sup>2</sup> [http://movilesaccesibles.ift.org.mx/catalogo\\_desktop/app/web/busqueda.php](http://movilesaccesibles.ift.org.mx/catalogo_desktop/app/web/busqueda.php)





Also the US Federal Communications Commission (FCC) has been using the GARI data on its Clearinghouse website<sup>3</sup>:



As can be seen from the two examples above, using the GARI XML feed offers the ability to customise the presentation to fit national needs.

The MWF is happy work with interested parties to identify the best way to implement and use the GARI database in their country and also provide additional support, such as guidance on how to promote mobile accessibility in general and the implementation of GARI in particular on a national level.

The links to many of the organisations already using GARI can be found on the “examples of GARI in use” page: <http://gari.info/examples-of-gari-in-use.cfm>

<sup>3</sup> <https://ach.fcc.gov/products-and-services/mobile-devices/region-na/all-manufacturer/all-blind-features/all-cognitive-features/all-hearing-features/all-mobility-features/all-physical-features/page-2-of-4/show-100/>



Every year, the MWF publishes a report on the progress of the GARI project, summarizing background, development, use statistics, trends and new features:



The report can be downloaded from: [http://www.mwfai.org/docs/eng/MWF\\_GARIO\\_2018AnnualReport.pdf](http://www.mwfai.org/docs/eng/MWF_GARIO_2018AnnualReport.pdf)



In 2018, the MWF also developed a Feature Guide and a handy overview of all features at a glance:

**GARI**  
GLOBAL ACCESSIBILITY REPORTING INITIATIVE  
www.gari.info

# GARI Feature Guide

Which features can help you better see, hear, speak, understand or use the device?

Accessibility features are designed to support you to better fulfill the actions you want to carry out. While many features can help in different situations, there are also specific features that can help you better see, hear, speak, understand, or just operate the device.

The feature guide can be downloaded from: [http://www.mwfai.org/docs/eng/MWF\\_GARI\\_FeatureGuide2.pdf](http://www.mwfai.org/docs/eng/MWF_GARI_FeatureGuide2.pdf)

**GARI** GLOBAL ACCESSIBILITY REPORTING INITIATIVE

## Accessibility features at a glance

Use the following guide to help you identify which features you may want to look for based on your needs.

**VISION**

- Moderate visual impairment**
  - Screen Magnifier
  - High Contrast Mode
  - Display Characteristics - Colour Differentiation
  - Display Characteristics - Backlight for Display
  - Display Characteristics - Adjustable Contrast Control
  - Display Characteristics - Adjustable Brightness Control
  - Adjustable Font - Size
  - Adjustable Font - Style
  - Dedicated and clearly distinguishable volume keys
  - Backlight for Keypad
  - Key Identification
  - Web Browser Zoom
- Severe visual impairment**
  - Web Browser Zoom
  - Speed Dial
  - High Contrast Mode
  - Voice Output of Caller ID from Contacts List
  - Voiced Menus
  - Audible Cues - Volume
  - Audible Cues - Calls
  - Audible Cues - Power
  - Audible Cues - Battery
  - Dedicated and clearly distinguishable key to lock the screen
  - Screen Magnifier
  - Display Characteristics - Adjustable Brightness Control
  - Display Characteristics - Adjustable Contrast Control
- Profound visual impairment**
  - Audible Cues - Enhancements
  - Audible Cues - Charging
  - Supports Accessibility APIs
  - Voice Output of SMS Inhibit
  - Ring Tone Variations
  - Personalized Shortcuts
  - Audio Identification of Keys - Function
  - Audio Identification of Keys - Spoken
  - Standard Number Key Layout
  - Screen Magnifier
  - Web Browser Zoom
  - High Contrast Mode
  - Display Characteristics - Adjustable Brightness Control
  - Display Characteristics - Adjustable Contrast Control
- Blindness**
  - Haptic Feedback
  - Screen Reader
  - Braille Display Support
  - Voice Recognition for Dialing or Accessing Features
  - Automatic Features - Automatic Answer
  - Key Feedback - Audible
  - Key Feedback - Tactile
  - Tactile Key Markers - 'P' and 'J'
  - Dedicated and clearly distinguishable volume keys
  - Personal Assistant / Voice Control

**DEXTERITY**

- Reduced gross motor skills (mobility)**
  - Personal Assistant / Voice Control
  - Stylus or Prosthetic Device support
  - External Switch / Pointer Support
  - Visible Focus Indicators
  - Voice Recognition for Accessing Features
  - Voice Recognition for Dialing
  - Automatic Answer
  - Device Coupling - Bluetooth/WLAN
  - Device Coupling - Cable
  - Display Characteristics - Screen Flicker
  - Personal Assistant / Voice Control
  - Supports Accessibility APIs
- Reduced fine motor skills (dexterity)**
  - Text-to-Speech / Dictation
  - Supports Gesture Based Navigation
  - Hand Movement
  - Easy to Press Keys
  - Guarded/Recessed Keys
  - Text Messaging Service Capable
  - Speaker - phone capable
  - External Keyboard Support
  - Lanyard Pin for key ring or Lanyard Strap
  - Ease of Opening for Clam/Shell/Flip Phone/Slider
  - Anti-slip Features
  - Automatic Features - Automatic Answer
  - Personal Assistant / Voice Control
  - External Switch / Pointer Support
  - Visible Focus Indicators
- Deafblind**
  - Dedicated and clearly distinguishable volume keys
  - Allows for sign language communication
  - Supports Closed Captioning for Web Video or Streaming
  - Adjustable Maximum Volume Control
  - Video Conferencing
  - SMS Personalisation and Reuse
  - Messaging Options - Predictive Text
  - Screen Reader
  - Screen Magnifier
  - Braille Display Support
  - Web Browser Zoom
  - High Contrast Mode

**HEARING**

- Mild hearing loss (lower end 25 to 40dB)**
  - Adjustable Maximum Volume Control
  - Mono Audio
  - Ringer Volume Adjustable
  - Messaging Options - Email
  - Messaging Options - Text Messaging/SMS
  - Visual indicators on Display - Voice Mail
  - Headset - plug connected
  - Hearing Aid or HAC Setting
  - Improved Call Quality
- Moderate hearing loss (40 to 70dB)**
  - Real-time-text capability
  - Call Logs
  - Key Feedback - Displayed
  - Messaging Options - Predictive Text
  - Visual indicators on Display - Battery
  - Visual Alerts - Incoming Calls
  - Hearing Aid or HAC Setting
  - Adjustable Maximum Volume Control
  - Mono Audio
  - Ringer Volume Adjustable
  - Improved Call Quality
- Severe hearing loss (70 to 95dB)**
  - Real-time-text capability
  - Adjustable Vibrating Alerts
  - Visual Alerts - Electronic Message
  - Key Feedback - Displayed
  - Video Conferencing
  - SMS Personalisation and Reuse
  - Visual Alerts - Other
  - Allows for sign language communication
  - Flashlight Notifications
  - Supports Closed Captioning for Web Video or Streaming
- Profound hearing loss/deaf**
  - Real-time-text capability
  - Allows for sign language communication
  - Front Facing Camera
  - Two-way Video Communications - using wireless LAN networks
  - Two-way Video Communications - using mobile networks
  - Vibrating alert
  - Visual Alerts - Other
  - Real-time-text capability
  - Supports Closed Captioning for Web Video or Streaming
  - Allows for sign language communication

**SPEECH**

- Speech disorder**
  - Real-time-text capability
  - Allows for sign language communication
  - Front Facing Camera
  - Two-way Video Communications - using wireless LAN networks
  - Two-way Video Communications - using mobile networks
  - Video Conferencing
- Language disorder**
  - Supports Closed Captioning for Web Video or Streaming
  - SMS Personalisation and Reuse
  - Messaging Options - Predictive Text
  - Messaging Options - MMS
  - Messaging Options - IM
  - Messaging Options - Text Messaging/SMS
  - Supports ability to install third party applications or apps

**COGNITION**

- Mild cognitive impairment**
  - Differentiation of Function Keys
  - Voice Notes
  - Simplify Display
  - GPS Capability
  - Copy and Paste
  - Simple Instructions
- Severe cognitive impairment**
  - Emergency services and location
  - Assistance Instructions
  - Photo Associated Telephone Book
  - Simple Reminders
  - No Screen Timeout

**MWF Mobile & Wireless Forum**

Email [accessibility@mwfai.org](mailto:accessibility@mwfai.org)  
Web [www.mwfai.org](http://www.mwfai.org)  
Twitter @GARIupdates

The features-at-a-glance table can be downloaded from:

[http://www.mwfai.org/docs/eng/MWF\\_GARI\\_FeaturesAtaGlance.pdf](http://www.mwfai.org/docs/eng/MWF_GARI_FeaturesAtaGlance.pdf)

GARI is currently offered in 18 languages and the MWF is happy to work with governments and regulators to further expand the range of languages the database is available in.

We invite ITU members to use GARI as one of the tools to promote mobile accessibility in their countries and fulfil their obligations under Article 9 of the UNCRPD. The MWF would be pleased to assist any member country interested in learning more or in learning how to implement GARI within their own websites. If you have any questions, please do not hesitate to contact Michael Milligan at [michael.milligan@mwfai.org](mailto:michael.milligan@mwfai.org) or Sabine Lobnig at [sabine.lobnig@mwfai.org](mailto:sabine.lobnig@mwfai.org).

