



# GARI

GLOBAL ACCESSIBILITY  
REPORTING INITIATIVE



Helping people find  
devices that best suit  
their needs

**ANNUAL REPORT 2019**

[www.gari.info](http://www.gari.info)



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The Mobile & Wireless Forum (MWF) established the Global Accessibility Reporting Initiative (GARI) in 2008 to provide information on the accessibility features within mobile phones and to help consumers identify devices that supported those features.

Today, GARI features an online database where you can find information on the accessibility features in over 1,500 devices including mobile phones, tablets, Smart TVs and Wearables. You'll also find information on accessibility apps that work on these devices.

The database is free to use, available online in 19+ languages and is used by governments, user organizations, telecom providers and many other stakeholders around the world.

The objective of GARI is to help people find a device that best suits their needs. GARI does this by providing a central source of information on the accessibility features available in devices and is primarily aimed at seniors, people with disabilities or some functional impairment and their families.

GARI constantly evolves based on feedback from the disability community, accessibility experts and the latest technological developments, and builds on partnerships with organisations around the world to expand and reach ever more users.

In this report, we are happy to give you a summary of GARI's progress in 2019, including the outcomes of the 5<sup>th</sup> GARI Feature Review, the addition of new features and new languages, partnerships to promote mobile accessibility worldwide and the key outcomes of a research project we carried out to understand GARI's social value.



I want a device that I can use without seeing the screen

I want a phone that can read out my emails and texts

I need a simple phone where I can use video to see my grandkids

I need a device that allows me to connect my Braille display

I want a tablet that I can use fully via voice control



# The 5th GARI Feature Review

Consistent with the MWF's commitment to regular stakeholder consultations and collaboration with the disability community, the MWF carried out the 5th GARI Feature Review. Accessibility experts, organizations of persons with disabilities, researchers, policy makers, national regulators and industry from all over the world were invited to give feedback on the features currently listed in GARI and to propose changes and additions.

The MWF received detailed feedback from organisations coming from the US, Brazil, Australia, Europe (European-wide organizations), France, UK, Switzerland, Germany, Austria, Sweden, Norway – 11 countries on four continents. This feedback resulted in proposals for 30 new features across the various product sections, recommendations to simplify descriptions of existing features as well as suggestions for improving the user interface. The detail of the feedback shows that the organizations invested a lot of time and effort in the analysis and we truly thank everyone who contributed!

After careful evaluation of all the suggestions, we decided to add 16 new features to GARI's phone section:

- Device Coupling – USB
- Headset/Headphone – connector
- Text-to-Speech (TTS)
- FM Radio
- Biometric Login
- Physical keyboard
- Device Coupling - Near Field Communications (NFC)
- Alternative to Biometrics
- Light/Dark Theme
- Connection available for Induction Loop
- Visual Display of Volume with Warning
- Configurable Audio
- Display Characteristic - Color Inversion
- Customizable Touch Gestures
- Intelligent Personal Assistant
- Battery Saver or Adaptive Battery Settings



Feature	Section	Feedback	Status
Text-to-Speech (TTS)	Mobile Phone, Smart TV, Headset, Smart TV, Mobile Phone, General	The document lists Text-to-speech (TTS) technology that reads out the digital text on the screen. The document suggests using voice control for emergency alert number services to allow for faster and more accessible emergency services under a natural disaster emergency situation, when the user is unable to use their phone.	Yes / No
Biometric Login	Mobile Phone, Smart TV	The document is about TTS technology. The document lists a biometric login feature.	Yes / No
Physical Keyboard	Mobile Phone, Smart TV	The document is about TTS technology. The document lists a physical keyboard feature.	Yes / No
Near Field Communications (NFC)	Mobile Phone, Smart TV	Near field communication (NFC) technology enables secure communication between two electronic devices that are close together, and is often used in mobile payment systems.	Yes / No
Device Coupling (USB)	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No
Device Coupling (NFC)	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No
Device Coupling (NFC)	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No
Alternative to Biometrics	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No
Light/Dark Theme	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No
Connection available for Induction Loop	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No
Visual Display of Volume with Warning	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No
Configurable Audio	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No
Display Characteristic - Color Inversion	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No
Customizable Touch Gestures	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No
Intelligent Personal Assistant	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No
Battery Saver or Adaptive Battery Settings	Mobile Phone, Smart TV	Can be used to connect to various accessories as the external display (SD)	Yes / No

These features have already been added to GARI's English language version and will be available across all language versions by the 2<sup>nd</sup> quarter of 2020.

The addition of the new features brings the total number of features listed in GARI to:

- 137 accessibility features for mobile phones
- 67 accessibility features for tablets
- 61 accessibility features for Smart TVs
- 52 accessibility features for Wearables



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# Partnerships to promote accessibility

The strength of GARI is the number of companies participating and providing the information on the accessibility features in their devices. Today, we have 30 manufacturers participating in the GARI project. The benefits that GARI provides differs for each stakeholder group, namely:

## Consumers

- A comprehensive searchable database of accessible devices in multiple languages.
- A central source of information for accessibility features in mainstream devices.

Several organisations of persons with disabilities provide a link to GARI via their website as a service to their members and publish regular updates about GARI's progress in their newsletters. Other entities referencing GARI include universities, health platforms and app developers.

## Governments

- A set of accessibility features that is far more extensive than any country's existing requirements.
- A tool that can help fulfil obligations under the UN Convention on Rights for Persons with Disabilities (UNCPRD).
- A database to demonstrate product compliance with national regulations.
- An easy to use gateway to provide consumers with information regarding the accessibility features of devices available in-country.
- A tool to encourage greater awareness of accessibility within industry as well as amongst the public.

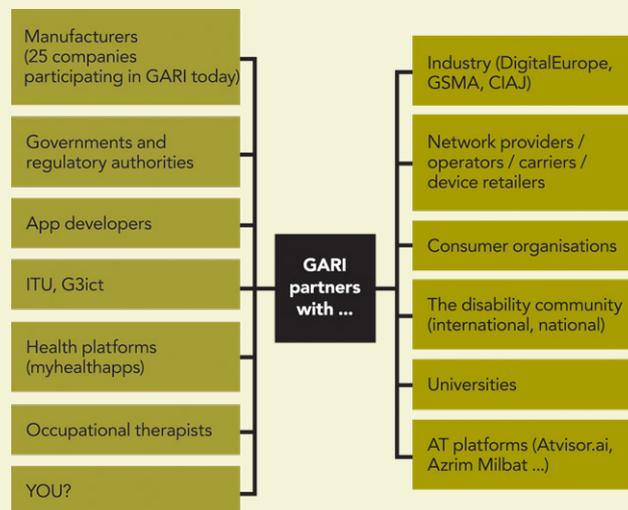
Ten government bodies from nine countries are already providing access to the GARI database via their websites.

## Telecom providers and device retailers

- An overview of the accessibility features in devices allowing retail and help-desk operators to easily assist customers.

Currently 14 network providers and industry bodies in 10 countries are using GARI to train their staff on how to search for appropriate devices to meet consumer needs or to provide information on mobile accessibility to their clients and constituencies. Several more network providers use GARI for the selection of accessible devices for their product portfolio.

GARI also partners directly with the disability community, governments and regulatory authorities, app developers, ITU, G3ict, health platforms, occupational therapists, industry, network providers, consumer organizations, universities, and AT platforms.



The MWF is happy to expand the network of countries and stakeholders actively using GARI. Organizations and institutions interested in promoting mobile accessibility via the use of GARI can connect with the MWF and we will discuss ways of working together and bringing the information on the available mobile accessibility solutions to the users who need it most.



# GARI's social impact

In 2019, the MWF carried out a small research project to better understand GARI's potential social impact.

The results of our online survey showed that 70% of respondents confirmed that the mobile device makes a huge difference in terms of having access to services and society. Although there is very high value placed on accessible technologies in education, employment and independent living, the penetration of mobile technology among people with disabilities is still lower than among non-disabled peers. This is true even in countries with very high mobile uptake, suggesting that the problem is even worse in low income countries.

One of the issues identified is a knowledge gap among accessibility professionals and retail staff - leading to unhelpful advice being given to users with disabilities. The accessible technology delivery chain - from the first identification of a user's needs to identifying and purchasing an appropriate solution - contains five 'pain points', where people need information to make the right choice.

The initial feedback also shows that GARI is most helpful when mediated. But it is increasingly important to reach consumers directly, the challenge being that there is a large diversity of user needs, very wide-ranging user experiences, local knowledge, context and individual needs.

Our research project showed that GARI is highly valued but that our major challenge is to respond to users who need further insight on products as the market evolves. Almost all stakeholders believe that GARI should be the hub for further information on mobile accessibility solutions.

To dive deeper into GARI's users' needs, we have implemented a follow-on survey, which gives us continued feedback and helps us to constantly improve the user experience on the GARI website and with the GARI database. If you too would like to participate, please access the survey here:  
<https://www.surveymonkey.com/r/3NSL62Y>



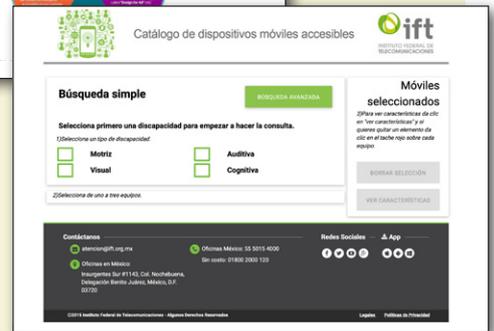
GARI's strength lies in the first three steps of the delivery chain, while the fourth relating to additional third-party applications, is being worked on. Our online survey showed, that the majority of users found GARI to be a useful source of information in selecting an appropriate mobile device. Their satisfaction was only limited by the need to investigate whether third party apps and whether the content that they regularly use is indeed accessible.



# GARI – open data

In its mission to help consumers find devices that best work for them, the MWF encourages interested parties to share the information about available mobile accessibility solutions in general and GARI in particular on their website by linking to the GARI website.

The Mobile & Wireless Forum also makes the GARI dataset available for organizations wishing to feature GARI within their own sites. 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.



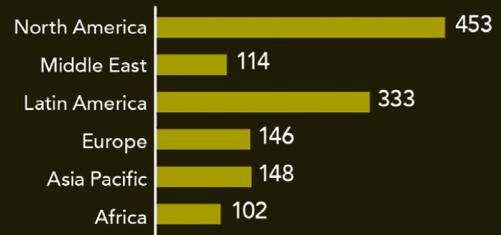
<sup>1</sup> See <http://www.gari.info/download-gari-db.cfm> for more information and the terms of the Creative Commons License.

# Five product groups and 1,500+ accessible devices

GARI started out as a simple spreadsheet listing accessibility features available in mainstream mobile phones. Since then, the database has grown to provide information on the accessibility of over 1,500 devices, including mobile phones, tablets, Smart TVs, Wearables and over 500 accessibility related apps.

The GARI database is populated in line with new devices coming to the market. By the end of 2019, the database listed information on the following number of mobile phone models around the world:

## GARI - Phone models by region



## How many people are using GARI?

In 2019, the GARI website attracted on average over 61,000 unique visits per month (up from 59,000 unique visits in 2018) and over 620,000 page views per month (up from 600,000 page views in 2018).

This data only covers the main project site and does not include information on usage from the many organizations that also use the underlying data via direct XML feed.

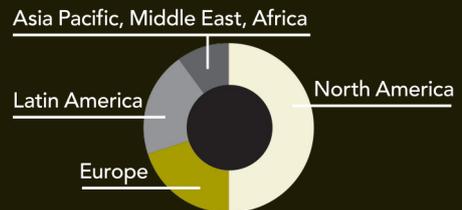
GARI average page views per month



## Where do GARI users come from?

While Latin America represented the region contributing the largest number of user searches in 2018, North America took the lead in 2019 accounting for more than 50% of all searches. Europe followed with 20% and then Latin America with a similar amount. The remaining 10% of searches were carried out by users in Asia Pacific, Middle East and Africa.

GARI searches by region



# Accessibility information in 19 national languages

As important as it is to provide information on the accessibility features in devices, it is equally important to provide the information in an accessible format. For this reason, the GARI website was designed to be usable with screen-readers and includes a collection of American sign-language videos that explain how to use the site. In addition, the GARI site has been translated into 19 languages allowing consumers to search the database in their preferred language irrespective of where they reside.

Languages currently supported on the site include English, Arabic, Danish, German, Spanish, Swedish, Finnish, French, Hungarian, Italian, Korean, Dutch, Norwegian, Polish, Portuguese, Romanian, Japanese and Chinese.

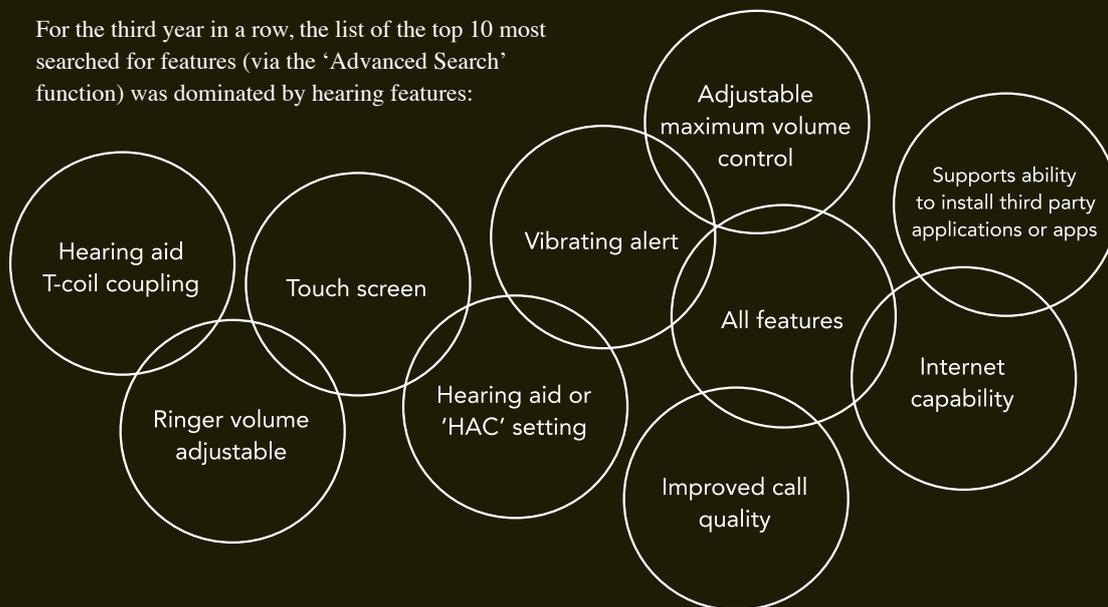
Thanks to the strong interest expressed by several organizations during the Access Israel Congress in May 2019, the MWF has added Hebrew as the 19<sup>th</sup> language for the GARI website and database.

The MWF is committed to expanding the range of languages that GARI is provided in and is happy to work with partner organisations to help bring this about.



# The top 10 most searched for features in 2019

For the third year in a row, the list of the top 10 most searched for features (via the 'Advanced Search' function) was dominated by hearing features:



## What type of apps are listed in GARI?

By the end of 2019, over 600 accessibility related apps have been added to GARI. These are apps that have been specifically designed to help overcome barriers people face due to disability, injury, illness, old age or disabling environments. The apps include maps for accessible locations, crowd-sourced help via the device camera for

people who are blind, speech to text functions for people who are deaf or hard-of-hearing, alternative and augmented communication and much more.

GARI also provides the opportunity to select an app that might be of particular importance or relevance to a user and to search for devices that the app will work on.

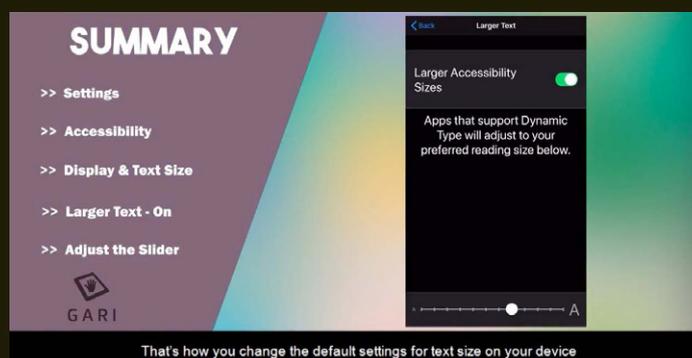
## What's to come?

In the first half of 2020, we will work on implementing the changes proposed and decided in the 5<sup>th</sup> GARI Feature Review – both in terms of adding new features as well as in improving the usability of the GARI website and database. We have also started working on short 1-2 minute videos that explain where to find the accessibility features in the devices and how to switch them on.

2020 will be the year to discuss the practical details of how industry will implement the European Accessibility Act (EAA) which has been adopted in 2019 and we will analyse how GARI can be used to report compliance as well as provide all EAA related information to consumers.

We continue to leverage the MWF membership in international organizations. These include the Inter-American Telecommunication Commission (CITEL) in the Americas and the International Telecommunications Union (ITU). Both forums support GARI as a tool for governments to fulfill their commitments under Article 9 of the UN Convention on Rights for Persons with Disabilities (UNCRPD). Article 9 focusses on promoting 'access for persons with disabilities to new information and communications technologies and systems, including the Internet.'

Finally, we will continue to work with organizations around the world to encourage greater awareness of existing accessibility features in devices today and expand the range of stakeholders using the GARI database.



## Get in touch

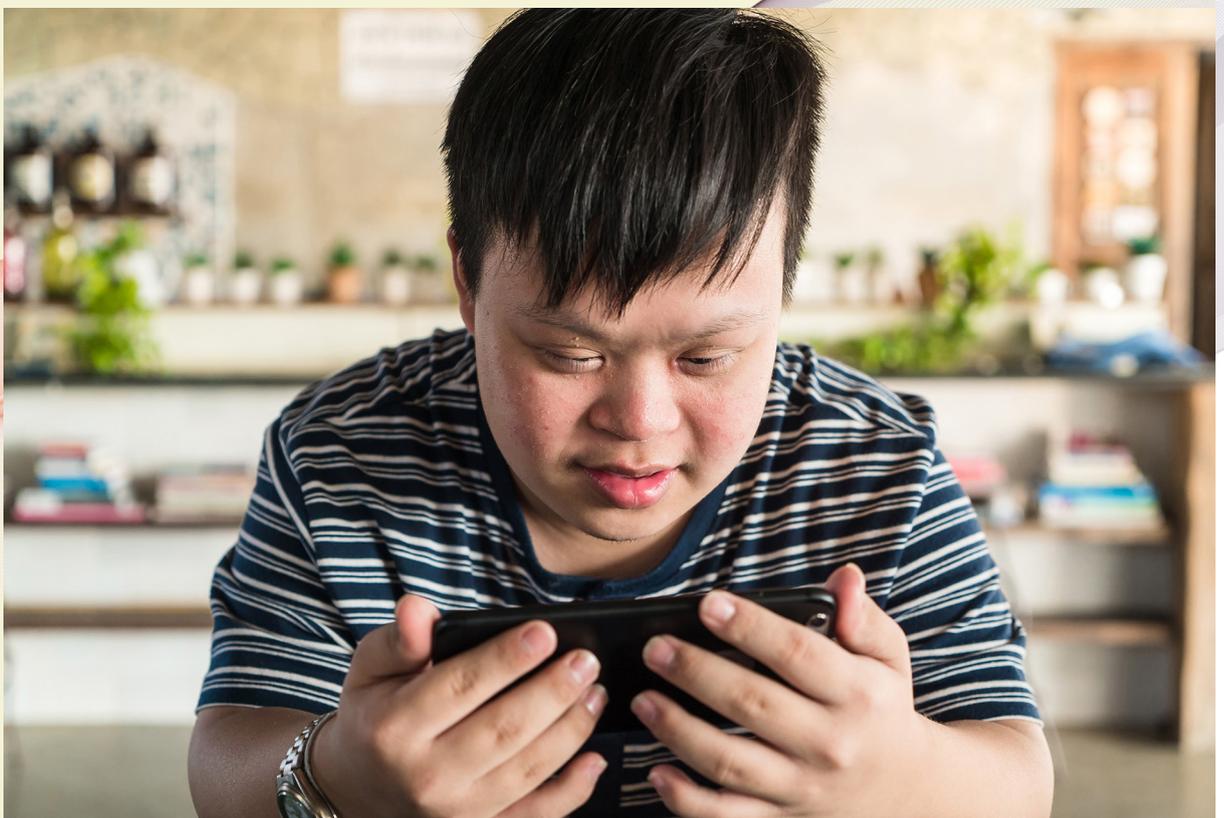
We would welcome the opportunity to discuss how we could further promote awareness of the accessibility features in devices or about the GARI project itself. Our contact details are as follows:

### **Mobile & Wireless Forum**

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