



RSM/COAI/2017/030

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**Subject: COAI Response to the TRAI Consultation Paper on  
Making ICT Accessible for Persons with Disabilities**

Dear Sir,

This is with reference to the TRAI Consultation Paper on Making ICT Accessible for Persons with Disabilities, released on December 20, 2017.

In this regard, please find enclosed COAI response to the Consultation Paper.

We hope that our submission will merit your kind consideration and support.

With Regards,

Yours faithfully,

A handwritten signature in black ink, appearing to read "Rajan S. Mathews".

**Rajan S. Mathews**

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**COAI Response on TRAI Consultation Paper on**  
**Making ICT Accessible for Persons with Disabilities**

**PREAMBLE**

1. We would like to thank TRAI for giving us the opportunity to respond to this very important Consultation Paper on providing connectivity to People with Disabilities in India.
2. We are of the view that it is important to have easy accessibility to all the citizen of India irrespective of the service provider they chose to opt. India is a country with vast population, hence focussing on measures to improve accessibility and equality of opportunity; promoting participation and inclusion; and increasing respect for the autonomy and dignity of persons with disabilities is an important aspect.
3. We appreciate this initiative of the Authority. The Industry is committed to working with the Authority for ensuring that ICT services are easily accessible to Person with Disabilities.
4. Hence, catering to customers who have disabilities need not necessarily be an entirely new exercise but may just require re-looking at existing concepts and features to ensure that they are used to making handsets more accessible.

In the backdrop of above submissions, our detailed issue-wise response is as follows:

**Query-wise Response.**

**Q1. Which are the disabilities, with specific accessibility requirement, other than those mentioned in para 2.3 that require consideration for preparing a framework?**

**COAI Comments:**

1. According to disabledworld.com which is an Independent Health and Disability news source that offers subject areas covering seniors and disability news, assistive device reviews, and articles on everything from helpful tips to disability sports articles, there are few other categories that are prevalent in the World today. Few of the PWDs that are not recognised by ITU are as below:

a. **Invisible Disabilities:**

- i. Invisible Disabilities are disabilities that are not immediately apparent to others. It is estimated that 10% of people in the U.S. have a medical condition considered a type of invisible disability. Most people with RSI-Repetitive Strain Injury (injury to the musculoskeletal and nervous systems that may be caused by repetitive tasks, forceful exertions, vibrations, mechanical compression, or sustained or awkward positions) move in a 'normal' and inconspicuous way, and are even encouraged by the medical community to be as active as possible, including playing sports; yet those people can have dramatic limitations in how much they can type, write or how long they can hold a phone or other objects in their hands. 15-25% of all computer users worldwide (both vocational and recreational) are estimated to have RSI. By this estimate, over 5 million Indian computer users (out of an estimated 28 million) may already be having RSI. Preliminary results of an ongoing prospective study among over 35,000 Indian computer professionals (2001-2008) found that over 75% reported musculoskeletal symptoms. This is the largest study ever undertaken to identify the prevalence, causes and results of treatment of Computer Related RSI.
- ii. So Invisible disabilities also need consideration from the Regulatory bodies to help them easy access to mobile phones.

b. **Psychological Disorder:**

- i. A mental disorder, also called a mental illness or psychiatric disorder is a mental or behavioural pattern or anomaly that causes either suffering or an impaired ability to function in ordinary life (disability), and which is not a developmental or social norm. The definition and classification of mental disorders are key issues for researchers as well as service providers and those who may be diagnosed.

For a mental state to classify as a disorder, it generally needs to cause dysfunction.

- ii. People with such disorders may face difficulty in picking up a phone or may have issues in understanding the functions embedded on a mobile phone.
- iii. Hence, Psychological disorder should also be considered by the Government while considering accessibility of ICT services.

c. **Spinal Cord Injury**

- i. A spinal cord injury (SCI) is classified as an injury to the spinal cord resulting in a change, either temporary or permanent, in the cord's normal motor, sensory, or autonomic function. A spinal cord injury, damage to any part of the spinal cord or nerves at the end of the spinal canal, often causes permanent changes in strength, sensation and other body functions below the site of the injury. The spinal cord does not have to be severed in order for a loss of function to occur. Depending on where the spinal cord and nerve roots are damaged, the symptoms can vary widely, from pain to paralysis to incontinence.
  - ii. People with Spinal Cord injury may also face difficulty in accessing basic telecom services and hence should be considered going forward.
2. Thus, in our view along with the recognised categories of disabilities by ITU, the above-mentioned disabilities may be considered for preparing a framework.

**Q2. Apart from the challenges enumerated in para 2.3, what other challenges do PwDs face while accessing telecommunication and broadcasting services?**

**COAI Comments:**

- 1. Written health promotion messages with barriers that prevent people with vision impairments from receiving the message. These include
  - a. Use of small print or no large-print versions of material, and
  - b. No Braille or versions for people who use screen readers.
- 2. Auditory health messages may be inaccessible to people with hearing impairments, including
  - a. Videos that do not include captioning, and
  - b. Oral communications without accompanying manual interpretation (such as, American Sign Language).

3. The use of technical language, long sentences, and words with many syllables may be significant barriers to understanding for people with cognitive impairments.

**Q3. In your opinion, what are the reasons for the desired benefits of ICT (telecom and broadcasting) not reaching the PWDs despite several policy measures and scheme being implemented?**

**COAI Comments:**

1. The reasons for desired benefits of ICT not reaching the PWDs are as below:
  - a. Cost and availability of necessary equipment such as mobile handsets, televisions, tablets and computers which offer features to enable PWD to use ICTs effectively.
  - b. Even where there is no additional cost, and accessibility features are available (for example in mobile handsets), awareness, training and education of both users and service providers are often required in order to break the accessibility barrier.
  - c. Lack of events to raise awareness, provide capacity building in ICT accessibility, share experiences, achievements and track concrete results regarding ICT accessibility among PWDs.
  - d. Incentive for the handset manufacturer or equipment manufacturer and other stakeholders to create capacity and develop such infrastructure.

**Q4. What additional or corrective measures can be taken by the Government to enable better access to telecommunication and broadcasting services and devices to PwDs? Please give a rationale for your response.**

**COAI Comments:**

1. We suggest that the Government should design holistic policy measures in consultation with TSPs, OEMs/ODMs, DTH operators and other stakeholders for setting up 'common code' with an objective to offer benefits of ICT services to PwDs and also, with an objective to develop instruments for the use by PwDs. This indicates that a thorough review of measures already implemented should be undertaken and a new strategy needs to be designed for future measures.
2. The measures which can be taken by the Government to enable better access to telecommunication and broadcasting services and devices to PWDs are as below:
  - a. Cost of allocation of ICT services to the lower section of the PWDs to be reduced in order to increase the access of these services by them. The less the cost of accessing these services, the more the users. India has the lowest voice tariffs in the world, similarly, services to PWDs to be kept at a minimal cost.

- b. Low cost handsets for PWDs.
- c. The initiative to PWD to be part of CSR activities under the Companies Act.
- d. **Film festivals** are an interesting forum to address PwD rights and to disseminate productions and materials developed by PwD. There are several film festivals around the world for portraying disability culture, promoting films in the most accessible way, delivering films produced by PwD. Examples of such festivals are: Canada Calgary's "Picture This", Brazil, Assim Vivemos, New York's "Sprout" festival and "Smartic" and "Inclucine" in Colombia. All of them foster the creation of content and short films by PwD.
- e. It is fundamental to have collaborative efforts among public and private sectors and society in all activities and projects developed for PwD.
- f. Active participation of PwD and groups representing PwD is essential.
- g. Promoting open source creation to make accessible apps and reducing their cost, will make such services available and affordable for PwD.

**Q5. Apart from the measures suggested by ITU, what additional measures can be taken by the TSPs and equipment vendors/suppliers and other stakeholders to address the challenges faced by PwDs while accessing telecom and broadcasting services?**

**COAI Comments:**

- 1. Telecommunication industry is already carrying out necessary actions to address the issue of offering services to PwDs. The telecommunications products are designed to be accessible to individuals with a broad range of disabilities and, they become more useful to everyone. For example, speaker phones are useful to individuals who cannot use their hands because of mobility impairment, but they are also useful to people who want to listen to and participate in a phone conversation as a group or use their hands for a purpose other than holding the receiver. A vibrator option of mobile phone can be useful for people with audio impairment. It is hoped that including accessibility considerations in the design of telecommunications products will create a more accessible world for PwDs.
- 2. The additional measures which can be taken by TSPs and equipment vendors/suppliers to address the challenges faced by PWDs while accessing telecom and broadcasting services are as below:
  - a. Where a customer uses assistive technology to contact their provider, the relevant front-line staff should receive training on what to expect and how to confidently interact with customers.

- b. Third party bill management, enabling a nominated friend or relative to act on behalf of someone who needs help to manage their affairs.

**Q6. What are the areas where collaboration between various stakeholders would be useful and how?**

**COAI Comments:**

1. In December 2015 the Member States of the United Nations adopted the 2030 Development Agenda for Sustainable Development and its Sustainable Development Goals (SDGs). The SDGs represent a significant step forward in terms of the inclusion of disability in internationally-agreed development goals. An emphasis of the SDGs, which include 17 goals and 169 targets, is to “leave no one behind.” Disability is referenced in the preamble of the SDGs and is referred to in a number of goals and targets.
2. Multi-stakeholder partnerships are expected to play an important role in the achievement of the SDGs, and therefore disability-inclusive development. Sustainable Development Goal 17 - “Strengthen the means of implementation and revitalize the global partnership for sustainable development” - recognizes multi-stakeholder partnerships as important vehicles for mobilizing and sharing knowledge, expertise, technologies and financial resources to support the achievement of the SDGs in all countries, particularly developing countries.
3. The areas where collaboration between various stakeholders would be useful are as follows:
  - a. education,
  - b. democracy & governance,
  - c. economic development,
  - d. environment,
  - e. health,
  - f. humanitarian assistance,
  - g. infrastructure
  - h. Government can designate disability focal points within mainline ministries, agencies, and commissions.
  - i. Government should adopt proactive measures to establish links with Disability Person Organisations (DPOs) and service providers.

- j. Government (e.g. offices focused on rural development) should target efforts in rural areas to increase access of persons with disabilities to primary education; health care facilities and services; infrastructure (e.g., making wells, hand-washing facilities, latrines and storage areas accessible).
- Q7. Should the Government/TRAI direct the telecom and broadcasting service providers to provide information pertaining to billing, usage, pricing and contracts in the form accessible to PwDs? Please provide a rationale for your response.**

&

- Q8. Should the Government/TRAI mandate that the devices used for watching television provided through cable, satellite/DTH, fibre, etc. should be made accessible to PwDs?**

**COAI Comments:**

1. In our views, telecom and broadcasting service providers are making efforts in this front, so there is no requirement for the Government/TRAI to mandate telecom and broadcasting service providers to provide information pertaining to billing, usage, pricing and contracts in the form accessible to PwDs. However, we suggest that following additional options can be worked up on;
  - a. Opt-in based OBD to PwDs at the time of bill generation and ebill delivery; and
  - b. Opt-in based OBD to PwDs for payment reminders;
2. **In our views, there is no requirement for mandating accessibility of devices used for watching television provided through cable, satellite/DTH, fibre, etc. to PwDs.** Industry is providing accessibility of such devices on time to time basis in tandem with technological development.
3. Government to set forth the policy objective and leave the implementation to TSPs/device manufacturers etc.

- Q9. Should international accessibility standards be adopted for telecommunication and broadcasting services and devices in India? Please suggest steps required to ensure their adoption by the service providers/device manufacturers.**

**COAI Comments:**

1. While mobile phones offer a means of accessing content over the internet and via phone, it is important that these should adhere to web accessibility standards such as **WCAG 2.0**. For example, bill payments in accessible formats, advertisements including voice, text and multimedia as per the choice of the user, video and audio clips on U-tube

and television with captions/subtitles and descriptions, will be completely accessible to persons with disabilities.

2. WCAG 2 Level A became the standard for Indian government websites in February 2009.
3. According to a report by “The Centre for Internet & Society”,
  - a. 7800 websites were tested
  - b. 1985 websites failed to open
  - c. Most of the remaining 5815 websites have some accessibility barriers
  - d. An average of 63 errors per home page, with a few pages crossing 1000 errors
  - e. 6% of homepages with a cumulative count of errors in excess of 500
  - f. 33% of websites on which non-text objects have no alternate text
  - g. 58% of the websites with no navigation mark-up
  - h. Only 52 websites with colour change option
  - i. Around 42% of the web pages have form links
  - j. Only 21 websites had inaccessible forms
4. This report summarises the key findings of a test conducted to measure the accessibility of 7800 websites of the Government of India and its affiliated agencies against the Web Content Accessibility Guidelines (WCAG) 2.0, which is the universally accepted standard for web accessibility.
5. **Steps required to ensure their adoption by the service providers/device manufacturers for Government Websites:**

“The Centre for Internet & Society” recommended the following initiatives for better adoption of services to Government websites. They are as follows:

- a. Make it mandatory for all government websites to comply at least with the WCAG level of AA. With an action plan for upgrade to level AAA (wherever possible) within the next five years.
- b. In many cases, there are errors such as giving alternative text for non-text objects and link descriptions which can easily and immediately be corrected. This will render

the website instantly more accessible, even before the entire website is retrofitted with accessibility features.

- c. Setup an internet accessibility observatory along the lines of the European Internet Accessibility Observatory (EIAO): The EIAO is an accessibility evaluator which uses automated web crawlers to continuously evaluate websites which are stored in their repository. Automated evaluation has been found to be useful to indicate need areas for attention to make websites accessible.
- d. Develop an online Accessibility Scorecard which is open to public scrutiny: This will allow administrators to understand the status of accessibility of government websites at a glance, continuously monitor progress and take informed decisions for remedial action in cases of non-compliance. It will also serve as an incentive to government agencies to maintain accessible websites.
- e. The Unified Web Evaluation Methodology (UWEM1.2)<sup>12</sup> developed by the EU Web Accessibility Benchmarking Cluster (WAB Cluster) is an excellent example of a framework which can provide a score for accessibility of a page, as well as aggregation of scores for a web application or collection of web applications. It provides the facility to carry out accessibility checks in multiple ways even where the checks are based on the same guidelines.
- f. Accessibility Reporting Mechanism: Develop a template for periodic voluntary reporting by government agencies on the state of accessibility of their websites. A successful example of this can be found in the United States where many organizations have adapted the Voluntary Product Accessibility Template®, or VPAT® to communicate the accessibility status of their products to their users. VPAT® is used to document the conformance of products with the accessibility standards under section 508 of the Rehabilitation Act. Section 1194.22 of VPAT® deals with web accessibility.

**Q10. What additional measures can be taken or technologies can be deployed by service providers or equipment manufacturers to assist PwDs?**

**COAI Comments:**

- 1. Development of applications, devices and services meant for the PwDs are said to be covered under CSR. Government should encourage companies to utilize their CSR fund for development of applications, devices and services meant for the PwDs.
- 2. In our view, there is no requirement for mandating international accessibility standards for telecommunication and broadcasting services. Industry is providing accessibility of such devices on time to time basis in tandem with technological development.

**Q11. Should device manufacturers be mandated to allow in their device's operating system those applications which are meant to assist the PwDs? Please justify your response.**

**COAI Comments:**

1. Yes, People with Disabilities should be provided mobile handsets with features/operating system which are easily accessible by them. We believe in universal design principles.

**Q12. What measures can be taken in India so that emergency services are made more accessible for PwDs? Should the implementation of these measures by TSPs be made mandatory by the Government?**

**COAI Comments:**

1. Handsets should be manufactured with easy access of emergency buttons for the disabilities.
2. Hence, these handset manufacturers should take enough measures in adopting easy access of such handsets for the disabilities.

**Q13. Should the device/handset manufacturer be mandated to manufacture atleast one model of handsets for PwDs which is having accessibility features and which are compatible with assistive technology features such as hearing and visual aids including emergency buttons etc.?**

**COAI Comments:**

1. Yes, all device manufacturers should be encouraged to provide accessibility features which help PWDs. There are several handset features which can be adopted such as big buttons, SOS Alarm, torch light, bigger font, etc.as depicted below for illustration.



Brand: Intex Vision,

Specifications: Provided in the image,

Price: INR 2600

2. Below is the table which depicts the list of handset manufacturers who provide few facilities for the disabled:

Device Manufacturers	Platform	Assistive Product	Devices
Nokia and a few devices from Panasonic and Sony Ericsson	S60	Screen Reader and Screen Magnifier (Mobile Speak and Talks)	Nokia All E and N Series and others like c5, 5800, Sony Vivaz Pro, Panasonic P900
Nokia	Symbian ^3	Screen Reader (Mobile Speak)	C7, N8 and upcoming models
RIM	BlackBerry	Screen Reader (Oratio)	BlackBerry Curve 8520
Apple	iPhone	Screen Reader (Voice Over)	iPhone 3GS and above
HTC, Samsung, LG, Motorola etc.	Windows Mobile From Microsoft	Screen Reader and Magnifier (Mobile Speak)	HTC S740, HTC Touch Pro II, Samsung Intrepid, Samsung Ace, MotoQ
HTC, Samsung, Sony Ericsson, Motorola	Android – Google	Screen Reader (Spiel and Talk Back)	Moto Droid, Samsung Galaxy, HTC Desire, Sony Ericsson Xperia X10
HTC, Samsung, Sony Ericsson, Motorola	Android – Google	Navigation Utility (Talking Intersection, Talking Compass)	Moto Droid, Samsung Galaxy, HTC Desire, Sony Ericsson Xperia X10
HTC, Samsung, LG, Motorola etc.	Windows Mobile – Microsoft	Navigation Utility (Mobile Geo)	HTC S740, HTC Touch Pro II, Samsung Intrepid, Samsung Ace, MotoQ
Nokia	S60 / Symbian ^3	Navigation – OVI Maps and LoadStone Accessible using Mobile Speak	Nokia All E and N Series and others like Nokia C5, Nokia 5800, Sony Vivaz Pro, Panasonic P900
Nokia	S60 / Symbian ^3	Learning (DAISY Player)	Nokia All E and N Series and others like Nokia C5, Nokia 5800, Sony Vivaz Pro, Panasonic P900
Nokia	S60	Optical Character Recognition (KNFB Reader)	Some Nokia camera phones (Above 5 MP)

Source: Joint Report by ITU & G3ict, 2012

3. All handset manufacturers should adhere to universal design principles.

**Q14. How should companies be encouraged to utilise their CSR funds for development of applications, devices and services for the PwDs? What kind of devices and applications can be envisaged/designed to make achieve ICT accessibility for PwDs?**

#### **COAI Comments:**

- Companies are already carrying out awareness activities for raising awareness on services or technology for PwDs. The Government should ensure that all such activities should be covered as CSR activities under the Companies Act.
- The devices and applications designed to make achieve ICT accessibility for PWDs are as below:

a. **Hearing Disorder:** Problem: Those who are deaf or hard-of-hearing can't communicate via telephone or hear automated electronic messages.

i. **Technologies:**

- **Assistive listening devices (ALD):** They amplify audio output from other devices like the TV or radio to hear clearly in environments.
- **Hearing loop systems:** This uses electromagnetic energy to transmit sound. It can be worn on the head like a headpiece.
- Vibrating Alert
- Visual or tactile indicators on the keypad: Lights or vibrations after actions have been performed or buttons being pushed is a useful indicator.
- **Captioning:** Some phones support closed captioning, open captioning and subtitles for videos.

ii. **Applications:**

- **Mobile Sign:** This is a British sign language lexicon that provides information on more than 4000 signs. It is available on both Google Play and Apple Store and is a very useful tool for communication for persons with hearing impairment.
  - **ASL Dictionary:** This is an American Sign Language dictionary with more than 4800 signs. The app allows the videos to be slowed down and looped for easier learning. It also has signs for common phrases, idioms and symbols.
  - **My Smart Hands – Baby sign language dictionary:** This app has been designed for parents of children with hearing impairment. This app has more than 300 videos of the most common signs for children with verbal description of the motion to ensure that the parent is signing correctly.
  - **Tap Tap:** This app is designed to vibrate and flash whenever there is any sound. It has been particularly created for persons with hearing impairment as it would alert them to important sounds in their surrounding such as sudden screaming and shouting or the buzz of the smoke alarm.
- b. **Motor Disability/Psychological disorder:** Problem: People who have no or diminished motor capacity will not be able to press buttons or physically navigate through most technology.

i. **Technologies:**

- **Mouth Stick:** Though not a technological device, a mouth stick is one of the most popular devices used by persons with disabilities who are unable to use their hands for operating a keyboard.

A video of how a Mouth Stick can be used is in the link below:

<https://www.youtube.com/watch?v=zKA2mDoC-N0>

- **Head Wand:** This device is similar to the mouth stick and is used by persons with disabilities who are unable to use their hands for operating keyboard or mouse. The head wand is strapped to the head and the person moves his or her head to type on the keyboard or navigate through web documents.

A video of how a Head Wand can be used is in the link below:

<https://www.youtube.com/watch?v=4f9UnzsOcJ0>

- **Single Switch Access:** People who have very limited mobility use this type of device. If a person can move only the head, for example, a switch could be placed to the side of the head that would allow the person to click it with head movements. This clicking action is usually interpreted by special software on the computer, allowing the user to navigate through the operating system, web pages, and other environments.
- **Sip and Puff Switch:** Similar in functionality to the single switch described above, sip and puff switches are able to interpret the user's breath actions as on/off signals, and can be used for a variety of purposes, from controlling a wheelchair to navigating a computer. The hardware can be combined with software that extends the functionality of this simple device for more sophisticated applications.
- **Oversized Trackball Mouse:** A trackball mouse is not necessarily an assistive technology—some people without disabilities simply prefer it to the standard mouse—but it is often easier for a person with a motor disability to operate than a standard mouse.
- **Adaptive Keyboard:** In cases where a person does not have reliable muscle control in the hands for precision movements, an adaptive keyboard can be useful. Some adaptive keyboards have raised areas in between the keys, rather than lowered areas, to allow the person to first place the hand down on the keyboard, then slide the finger into the correct key. A person with tremors, or spastic movements could benefit from this type of keyboard. Keyboard overlays are also available as an adaptation to standard keyboards, which

achieve the same results. In some cases, adaptive keyboards come with specialized software with word-completion technology, allowing the person to type with fewer keystrokes, since typing can be rather laborious and slow otherwise.

- **Eye Tracking:** Eye tracking devices can be a powerful alternative for individuals with no control, or only limited control, over their hand movements. The device follows the movement of the eyes and allows the person to navigate through the web with only eye movements.
- **Voice Recognition:** This software is used by persons with disabilities who are unable to use their hands to type or navigate through the web using a keyboard. This software allows a person to control a computer through speech.

## ii. **Applications:**

- **Wheelcrowd:** This application helps in searching for wheelchair accessible places such as restaurants, facilities etc. around a neighbourhood. This application is available for both iPhone and Android users. This application is currently developed to provide information in Germany.
- **City Rollers:** This free app is specifically made for wheelchair users to assist in navigating through cities on wheels. It allows users to locate, add and rate important places such as rest rooms, public transportation, restaurants and wheelchair supply and repair shops. Version 1.0 of this app provides support for select American cities. It is compatible with iPhone.
- **Fast Mall:** This free app provides directions to wheelchair accessible routes in malls especially to elevators and rest rooms in malls and shopping districts. It functions even while offline. It is optimised for iPhone 3 and above.
- **Local Eats:** Upon keying in the location, this free app provides information on the local restaurants and indicates whether they are wheelchair accessible. This is optimised for iPhone.

## c. **Cognition**

### i. **Technologies**

- Predictive text: This makes it easier to compose messages.
- Prompting: External cueing systems are useful for people with memory and organization problems as it prompts the next steps of a task and send reminders as in the case of built-in schedule reminders.

- ii. Hence, the above-mentioned technologies and applications are predominantly used worldwide for disable people and similarly government can take enough measures to enhance the usage of such technologies and application in India which is useful for PWDs in accessing basic services.

**Q15. Should any other funding mechanism for the development of applications, devices and services meant for the PwDs be considered? Please give a rationale for your response.**

**COAI Comments:**

No Comments

**Q16. How can effective campaigns be designed to create awareness about use of ICT accessibility tools? Can such campaigns be funded by CSR funds? If not, what other mechanisms can be used to fund such campaigns?**

**COAI Comments:**

1. TSPs are utilizing CSR funds for carrying many activities in respect to creating awareness about use of ICT accessibility tools and all such activities should be part of CSR activities under the Companies Act. Therefore, we believe there is no need to mandate to fund any campaigns by utilizing CSR funds.

**Q17. Should the Government incentivize the manufacturing and development of ICT tools and devices viz. tools for mobile accessibility, TV accessibility or for web accessibility for PwDs? Please give a rationale for your answer.**

**COAI Comments:**

1. TRAI through positive policy change should incentivize manufacturing and development of ICT tools and devices viz. tools for mobile accessibility, TV accessibility or for web accessibility for PWDs.

**Q18. Please give inputs/suggestions/comments on any other issues which you feel are relevant to the subject matter.**

**COAI Comments:**

No Comments

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