

ACCESSIBILITY STANDARDS
FOR PERSONS WITH DISABILITIES
IN TELEVISION PROGRAMMES

**National Association of the Deaf 's
Recommendations**

PREAMBLE

Whereas Constitution of India guarantees various kinds of Fundamental Rights to all its citizens irrespective of their religion, race, caste, sex, or place of birth. Article 14 of the Constitution of India provides for Right to Equality before the law. It further states that the State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India.

Whereas Persons with Disabilities also have similar and equal rights in the eyes of the Constitution.

Whereas India is a signatory to the United Nations Convention on the Rights of Persons with Disabilities ("the CRPD" or "the Convention"), which came into force in May 2008. This Convention recognizes accessibility as a human right and requires signatories to adopt appropriate measures to ensure access by persons with disabilities to information and communication technology, emergency services and internet services on an equal basis with others.

Whereas in December 2015, the Government of India launched 'The Accessible India Campaign also known as the 'Sugamya Bharat Abhiyan' to enable persons with disabilities to gain universal access, equal opportunity for development, independent living, and participation in all aspects of life. The campaign seeks to enhance accessibility by making significant changes to the infrastructure, information and communication systems.

Whereas Government of India also enacted The Rights of Persons with Disabilities Act, 2016 (The Act), which is the principal and comprehensive legislation concerning persons with disabilities. The Act defines the responsibilities of the Central and State governments with regard to the services for persons with disabilities. The Act also recommends creating a barrier-free environment by removing all type of discrimination against persons with disabilities where they can share the development benefits which a normal person enjoys.

Whereas the Section 29(h) of The Act requires television to be accessible for persons with **hearing impairment** **deaf & hard of hearing**.

Whereas keeping in view the provisions of Rights of Persons with Disabilities Act, 2016, Ministry of Information & Broadcasting, on 27th September, 2017 constituted a Committee of Experts and Stakeholders to formulate Accessibility Standards for Persons with Disabilities. The mandate of the Committee was to deal with Standards of TV viewing accessible to persons with **hearing impairment** **deaf & hard of hearing**. In its first meeting held on 9th October, 2017, the Committee decided to form a Sub-Group

under the Chairpersonship of Director General, Doordarshan for formulation of Accessibility Standards to facilitate accessibility of TV programmes for persons with **hearing impairment** **deaf & hard of hearing** keeping in view the provisions of the Act.

Whereas the Sub-Group held wide ranging consultation with Broadcasters, Disability Groups and other stakeholders concerned. The Sub-Group submitted its report to the Ministry on 4th December, 2018.

The report of the Sub-Group has been examined by the Ministry of Information & Broadcasting in consultation with the members of Committee of Experts and Stakeholders. Based on the recommendations made by the Sub-Group and the Committee and after stakeholders' consultation on 10th June, 2019, under the Chairpersonship of Secretary of Ministry of Information and Broadcasting, the Ministry has formulated Accessibility Standards in Television Programmes for persons with **hearing impairment** **deaf & hard of hearing**.

RED – REMOVE YELLOW - ADD

Accessibility Standards for Television Programmes for Hearing Impaired Deaf & Hard of Hearing

1. OBJECTIVES

The objective of this policy is to formulate and lay down Accessibility Standards for TV programmes for persons with hearing impairment deaf & hard of hearing.

2. DEFINITIONS

"Hearing Impairment" has the same meaning as defined in the Rights of Persons with Disabilities Act, 2016, which is as under:

Hearing Impairment-

- (a) "deaf" means persons having 70 DB hearing loss in speech frequencies in both ears; and
- (b) "hard of hearing" means person having 60 DB to 70 DB hearing loss in speech frequencies in both ears.

"Access service" means a service such as sub-titles/closed captioning and signing Indian Sign Language interpretation that improves the accessibility of a television programmes /audio-video content for hearing impaired Deaf & Hard of Hearing persons.

"Closed captioning" (CC) is the means by which both the audio dialogue and sound representations of an audio-video content are made visible via on- screen text that is synchronized with the audio content on demand by the user.

"News Captioning" means display of headlines or summary of key developments on News and Current Affairs Channels by way of scrolls or static text, irrespective of whether such news captioning is verbatim transcription of what is being displayed on Television screen.

"Electronic Programme Guide" (EPG) is an application to list current and scheduled programmes that are or will be available on a particular channel, a short summary or commentary for each programme and programme information. EPG is the electronic equivalent of a printed television programme guide.

"Programme Information" means an indication of which video programmes are accompanied by internationally recognized access service icons such as the following upper-case letters - closed captioning

(CC), **subtitling for the deaf and hard of hearing (SDH)** and Indian Sign language interpretation **(ISL)**.

"Service Provider" refers to the entity responsible for creating/delivering television programming, including broadcasters which are licensed by the Ministry of Information and Broadcasting and distributors, namely, cable and satellite network operators and service providers irrespective of whether licensed by the Ministry of Information and Broadcasting or not.

"Open Captioning" is captioning whereby the user does not have to do anything in order to see captions for the hearing impaired, as these are an integral part of the picture and cannot be turned off.

"Sub-titling" is captioning of dialogues whereby the user does not have to do anything in order to see such sub-titles for the hearing impaired, as these are an integral part of the picture and cannot be turned off.

"Signing (or Indian Sign Language)" is communication using sign language. **An Indian Sign language** (also signed language) is a language, which, instead of acoustically conveyed sound patterns, uses visually transmitted sign patterns (manual communication, body language) to convey meaning- simultaneously combining hand shapes, orientation and movement of the hands, arms or body, and facial expressions to fluidly express a speaker's thoughts.

"Indian Sign Language Interpretation" are the translated version of the programme audio (speech and other sounds) conveyed in Indian sign language by the Deaf Signers or professional Indian Sign Language Interpreters for viewers who are hearing impaired and use sign language. **Indian Sign language** typically use hand shapes, movement, body language and facial expressions to convey meaning. Whenever reference is made to 'sign language' in the Indian context, it will refer to a variant of it called 'Indian Sign Language' (ISL).

Deaf Signer is the Deaf or Hard of Hearing person having the skills in Indian Sign Language and the ability to narrate in Indian Sign Language who have experience on working for the deaf community.

Indian Sign Language Interpreter is the professional Indian Sign Language Interpreter who have experience on working for the deaf community and selected based on the recommendations of the committee consisting of representatives from the Associations / Organisations of the Deaf and Hard of Hearing.

"Television broadcasting" means the transmission of a television channel, whether analogue or digital, by wire or over the air, in un-encoded or encoded form, of television programming and electronic programme guides or both intended for reception by the public.

"Emergency Services & Information" means the public communications, public service messages, alerts and announcements in situations of disasters and emergencies.

"Television programming" means all types of transmitted audio-video content meant for television broadcasting provided or distributed by a service provider, including broadcasters, cable, satellite, and the retransmission of their television programmes on the Internet, intended for reception by the public.

Page 4 of 16

"Ministry" in the context of this policy means the Ministry of Information & Broadcasting, Government of India.

3. AWARENESS AND CUSTOMER SERVICE

- 3.1 The Government and the service providers would take steps to ensure that the public is aware of television programmes accessibility requirements, the measures that have been put in place to promote accessibility, and their rights in terms of the relevant legislation and regulations.
- 3.2 All the service providers will take effective steps to publicize and create awareness of the accessibility of their television programmes including through periodic announcements on their own channels and other services, advertising accessible programmes on Electronic Programme Guides, printed programme guides and providing information in publications aimed at persons likely to benefit from accessible television.
- 3.3 All the concerned 'service providers' with the help of Deaf or Hard of Hearing individuals, should train their customer servicestaff how to deal with and serve customers with hearing impairment, and guide such customers appropriately as to how to use and customize available access services and EPG, etc.
- 3.4 All the concerned 'service providers' will designate a single point-of-contact for information and complaints about accessibility issues. This designated point of contact should be publicized by the broadcaster and publicity about such point of contact must be made accessible to persons with hearing impairment.
- 3.5 Standardized or generally known and accepted language and symbols should be used to disseminate information to public about the channels and programmes that are accessible. The symbols used should be widely disseminated in public communications and should be explained in an appropriate part of the EPG.

4. TELEVISION PROGRAMMES ACCESS

- 4.1 Service Providers are required to deliver sub-titles/closed captioning and Indian Sign Language Interpretation across specified television programmes in order to ensure access by hearing impaired to such television programmes. However, it shall be at the discretion of the Service Provider/broadcaster to choose any one or more option from Closed Captioning, Subtitles, Open Captioning and/or Indian Sign Language Interpretation as will be most suited to the format of the programme and requirement of the viewers.

- 4.2 The Ministry may mandate the above accessibility measures through regulations, licence conditions, accessibility targets and codes of good practice, and other relevant measures.
- 4.3 The Ministry in consultation with stakeholders, may also lay guidelines to ensure the interoperability of television services and equipment enabling users to receive, decode and display access services for hearing impaired deaf & hard of hearing persons.
- 4.4 Audio-video content creators and owners are responsible for creating the content for these services and delivering that content to the concerned Service Provider. This policy recognizes the complexity of the audio-video content value chain and therefore encourages service providers to promote, through their content acquisition, programming and editorial policies, the delivery of access services as part of television programmes/ audio-video content producers' packages.
- 4.5 Service Providers are required to deliver closed captions where technically feasible and allow the viewers to choose when to use them.
- 4.6 Sub-titles or open captioning or Closed captioning (CC) and Indian Sign Language Interpretation must be provided in the language of the channel or such language as may be deemed feasible by broadcaster (depending on factors such as target audience, target region etc.)
- 4.7 Where Indian Sign Language Interpretation is provided, Service Providers should be encouraged to provide it in a manner that the viewer can see not only the hands but also, where applicable, the facial expressions of the signer. The image of the signer superimposed upon the original programme should generally appear on the right hand of the screen and occupy a space no smaller than one sixth one fourth of the picture.
- 4.8 Service Providers should monitor the effectiveness of the service through regular contact with organizations representing people who are hearing impaired Deaf and Hard of Hearing.
- 4.9 Foreign language television programmes should have closed captions in English and/or any Indian language and Indian Sign Language Interpretation.

5. FUNDING

Adequate funding may be ensured by Prasar Bharati to public television broadcaster i.e. Doordarshan to provide a high quality service to meet the needs of hearing impaired Deaf & Hard of Hearing persons.

6. EXEMPTIONS

6.1 TV Channels achieving an average audience share of all households over a 12 month period of less than 1% are excluded from providing the accessible services set out in this policy.

A broadcaster shall have three (3) months' time for implementation of Accessibility Standards once the above threshold is crossed by a relevant channel so as to enable relevant Broadcasters to comply with the same.

6.2 Exempted Content

The following formats of content may be exempted from complying with Access Service due to the very nature of the content:

- Live and deferred live content events such as sports
- Live news events like live music shows, award shows, live reality shows, etc.
- Content like music shows, debates, scripted/ unscripted reality shows, etc.
- Advertisements/teleshopping content.

7. TARGETS AND REPORTING REQUIREMENTS:

7.1 The Ministry would establish, in consultation with associations/ organizations of persons with hearing impairment Deaf and Hard Of Hearing, Service Providers of audio-video content and other relevant stakeholders, measurable targets to be implemented by Service providers.

7.2 Sample measurable targets include:

- a) Percentage of television programmes/audio-video content, by type of television programmes/audio-video content, that offers different access services, including closed captioning and Indian Sign Language Interpretation.
- b) Steps taken by Service Providers to publicize and create awareness of the accessibility of their television programmes.
- c) EPGs using internationally recognized icons to indicate type of access service provided.
- d) Emergency broadcasts in accessible formats.
- e) Quality of service standards for accuracy and synchronization of closed captioning and audio description established.
- f) Service Providers to establish the collaborations with associations / organizations of Deaf and Hard of Hearing persons for guidance and consultancy.

8. ACCESSIBILITY STANDARDS

8.1 Television & Set Top Boxes

Details are given in the schedule.

- (i) Television & Set Top boxes should provide easy options to access the closed captions, sub-titles and/or Indian sign language interpretation.
- (ii) Television, set top box and remote controls must ensure that key controls are easily distinguished and identifiable.

8.2 Captioning Guidelines

The details are in the schedule.

- (i) The captioning should be accurate, synchronized, complete and free from errors of spelling and grammar.
- (ii) Position of captioning, case, italics and underlining, color and font should be such as it is easily visible/ readable for hearing impaired Deaf & Hard of Hearing.

8.3 Indian Sign Language Guidelines

The details are in the schedule.

- (i) Indian Sign Language interpretation by Hearing Interpreters or Deaf Signers must be provided in a picture-in-picture mode and it must be accurate and convey clear message to the hearing impaired Deaf & Hard of Hearing.

8.4 Online/ Internet TV/Television programmes through Internet

The accessibility standards defined and prescribed for TV programmes being broadcast through traditional hardware would apply '*mutatis mutandis*' on the same Television programmes shown through Internet platforms.

9. EQUIPMENT

The details are in the schedule.

- 9.1 End-user equipment must support access services.
- 9.2 Service Providers and manufacturers of consumer equipment to access the audio-visual content to ensure that viewers who are hearing impaired Deaf & Hard of Hearing and use hearing aids, are able to hear the programme with hearing aid.

10. ELECTRONIC PROGRAMME GUIDES (EPGs)

The details are in the schedule.

- 10.1 Service Providers to ensure that the programme synopsis in the EPG indicates which programmes are accompanied by access services using the internationally recognized access service icons and symbols.
- 10.2 If non-standard terms are used in any part of the EPG, the removal or replacement by the standard abbreviations should be done at the next reasonable opportunity.
- 10.3 Service Providers should ensure that they provide accurate and timely information to EPG and other TV programme listing providers about television access services.
- 10.4 Service Providers should ensure EPGs provide information about assistance in relation to programmes.
- 10.5 Service Providers should provide an easily accessible part of the EPG or alternatively in other accessible ways information for hearing impaired Deaf & Hard of Hearing.

11. EMERGENCY SERVICES & INFORMATION

- 11.1 It is the responsibility of the Government, the Service Providers and public bodies with responsibility for emergency services to create awareness about the availability and accessibility of emergency services by hearing impaired Deaf & Hard of Hearing.
- 11.2 All emergency information made available to the public should also be mandatorily provided to hearing impaired. For hearing impaired Deaf & Hard of Hearing people, emergency information must be provided in formats accessible to such persons, namely open captioning, closed captions, sub-titling/ and Indian Sign language interpretation.
- 11.3 Public communications, public service messages and announcements in situations of disasters and emergencies must be made accessible to hearing impaired in appropriate forms of communication to leverage mainstream communication channels.

12. PHASE WISE IMPLEMENTATION

It is recognized that a roadmap prioritizing the implementation of Access Service for different types of television programmes including news, emergency communications, pre-recorded audio-video content and the target set may differ for different categories of Service Providers. Keeping in mind

the aforesaid acknowledgement and considering the technical difficulties, the implementation of Access Service should be in a phased manner: -

- 12.1 Access Service should be first implemented by the public broadcaster Doordarshan.
- 12.2 Private broadcasters excluding news broadcasters may begin with one programme per week with captions from **16th September, 2019**.
- 12.3 Private News broadcasters may start with daily sign language news bulletins from **16th September, 2019**. To facilitate this, Doordarshan will provide its **Indian** sign language news bulletin free of cost to the private news broadcasters till **31st December, 2020**, till which time private news broadcasters may develop their capacity to produce their **Indian** sign language news bulletins.
- 12.4 The proposed phased manner implementation (except the exempted content]. will be as under:

	2022	2023	2024	2025
Closed caption &/or Indian Sign Language Interpreter by Hearing (Live News, Live Sports, Emergency information, PIB live, and FB Live)	40 %	50 %	70 %	75 %
Closed caption & Indian Sign Language Interpreter by Deaf Native sign Language (News Channel)	40 %	50 %	70 %	100 %
Closed caption &/or Indian Sign Language Interpreter by Hearing (Live Sports, other programs)	20 %	30 %	60%	75 %

12.5A private broadcaster excluding news broadcasters may be required to provide Access Service: -

- 12.5.1 For minimum **75%** of its content which shall be implemented in a phased manner (as stated above);
- 12.5.2 For minimum **100%** of its content on Foreign - English Language Channels, which shall be implemented in a phased manner (as stated above); For minimum **100 %** of its content on News Channels, which shall be implemented in a phased manner (as stated above);
- 12.5.3 The language of the Closed Captioning **or Subtitles** shall be the language of the content; and

12.5.4 For calculation of the above percentages, advertisements and teleshopping content on the channels should not be excluded.

13. MONITORING AND IMPLEMENTATION

The Ministry may set up a committee to monitor the implementation of the Accessibility Standards for Television programmes for hearing impaired Deaf & Hard of Hearing.

14. PERIODIC REVIEW

Due to the fast-moving technological developments and market conditions, this policy shall be reviewed every two years.

SCHEDULE

SCHEDULE REFERRED TO IN PARAGRAPHS 8, 9, 10, OF THE POLICY

8.1 Television and Set Top Boxes

(a) Television and set top boxes are the key method through which we access television programming. The television and set top box itself need to provide techniques for **hearing impaired Deaf & Hard of Hearing** to access the content. For the **hearing impaired Deaf & Hard of Hearing**, television and set top boxes need to provide easy options to access the **closed captions, sub-titles and/or Indian** sign language interpretation. In addition, Television and set top boxes must provide support to accessibility features and settings but not limited to:

- **Closed** Captioning Support

(b) Television, set top box and remote controls must ensure that key controls are easily distinguished and identified as well as supported for features like:

- Power On/Off
- Changing the Source
- Changing Channels and Volume
- Switching On or Off Closed Captioning
- **Switching On or Off Indian Sign Language Interpretation**
- Display of Channel Information/Guide
- Access to Playback controls (Play, Stop, Pause, Fwd, Rewind, etc.)
- Interacting with Menu Options
- Setup Options

8.2 Captioning Guidelines

A. Presentation

- i. **Subtitling/** **C**losed captioning should use the best legible font for all **subtitles/** closed captioning.
11. There is no fixed size for font as font size option is provided to the viewer.
- iii. **Subtitles/** **C**losed captioning on standard definition OTT services should be no less than 20 television lines for the capital 'V', to include those lines at the top and bottom of each character containing pixels that are at least 50% illuminated.
- Iv. **Subtitles/** **C**losed captioning should be placed within the 'safe caption area' of a 14:9 display and should normally occupy the bottom of the

screen, except where they would obscure the speaker's mouth or other vital information or activity.

- v. It is particularly important to avoid obscuring the face, as this conveys emotions and tone of voice, as well as being necessary for lip-reading.
- v1. Recommended colours are white, yellow, cyan and green against a solid black background as these provide the best contrast. However, channels are free to use colour scheme to suit the look and feel of the channel. When scrolling **subtitles**, close captions need to be used, any scripted material should be used for advance preparation.
- vii. In addition to achieving the highest possible levels of accuracy and synchronization, live **subtitles** close captioning should flow continuously and smoothly.

B. Lay-out

- i. **Subtitles** **Closed Captioning** should normally comprise a single sentence occupying no more than two lines, unless three lines will not obscure the picture. If necessary, sentences should be broken or reformed into more than one sentence at natural linguistic breaks so that each subtitle forms an understandable segment.
 - ii. Where breaks occur, the split should be made in a way that makes clear that there is more to come.
111. This can be achieved by ending the first **subtitle** **closed captioning** with a conjunction, a colon or semi-colon as appropriate, or even a short run of dots. Line breaks within a word must be avoided.

C. Non-speech information

- 1. In addition to speech, **subtitles**/closed captioning should clearly describe relevant non-speech information, such as the mood of any music playing and the words of songs if possible (using the # sign to precede and conclude music), louder speech (using capital letters), inaudible mutterings or incoherent shouts etc. (which should be explained as such).
- ii. Italics or punctuation marks may be used to indicate emphasis.
- iii. **Subtitles** **Closed captioning** should be used to identify the source of off-screen/off-camera speech where this is not obvious from the visible context.

D. Synchronization of speech and **Closed Captioning **subtitling****

- 1. The aim should be to synchronize speech and **subtitling** closed captioning as closely as possible.
- ii. **Subtitle** closed captioning appearance should coincide with speech onset and disappearance should coincide roughly with the end of the corresponding speech segment.

- iii. If necessary, **subtitling** closed captioning may be edited conservatively if this is necessary to avoid long delays between speech and **subtitling closed captioning**.
- iv. In live programmes, the aim should be to keep the inevitable delay in **subtitle** closed captioning presentation to the minimum (no more than 3 seconds) consistent with accurate presentation of what is being said.
- v. If possible, **subtitles** closed captioning should not over run shot changes and should commence on a shot change when synchronous with the start of speech.

E. Speed of **subtitling Closed Captioning**

- i. The speed should not normally exceed 160 to 180 words per minutes for pre-recorded programmes.
- 11. Although it may not be practicable to restrict the speed of **subtitles** closed captioning for all live programmes, commissioning editors and producers should be aware that dialogue which would require **subtitles** closed captioning faster than 200 words per minute would be difficult for many viewers to follow. Consideration may be given to displaying three lines of **subtitling** closed captioning rather than two, to allow longer for the **subtitles** closed captioning to be read, provided that this does not obscure important parts of the picture.
- iii. Slower speed and more heavily edited **subtitles** closed captioning are appropriate for young children, though care should be taken to ensure that these are accurate and grammatically correct, as children and parents use **subtitles** closed captioning in developing literacy skills also.

F. Accuracy

- i. **Subtitle** closed captioning users need to be able to watch what is going on, and to read the **subtitles** closed captioning, so it is important that these are as accurate as possible, so that viewers do not need to guess what is meant by an inaccurate **subtitle** closed captioning.
- 11. Broadcasters should ensure that **subtitles** closed captioning for pre-recorded programmes are reviewed for accuracy before transmission.
- iii. Where live **subtitling** closed captioning is to be provided, advance preparation is vital - where possible, any scripted material should be obtained, and special vocabulary should be prepared.
- 1v. The **subtitling** closed captioning for repeated programmes that were first telecast live should be reviewed and edited if necessary.

8.3 **Indian Sign Language Interpretation Guidelines**

A. Accuracy of **Indian Sign Language Interpretation**

- (i) **Indian** Sign Language Interpretation must be accurate and convey the clear message to the **hearing impaired deaf & hard of hearing** users.
- (ii) Where **Indian** Sign Language Interpretation are provided, Service Providers should be encouraged to provide it in a manner that the viewer can see not only the hands but also, where applicable, the facial expressions of the signer.

B. Position

- (i) **Indian** Sign language interpretation must be provided in a picture-in- picture mode.
- (ii) The image of the signer superimposed upon the original programme should generally appear on the right hand of the screen and occupy a space no smaller than **one sixth the one fourth** of the picture.

C. **Qualifications of Interpreter / Deaf Signer**

- (i) Service Providers should be encouraged to consult with the Associations/Organizations of the Deaf and Hard of Hearing for the selection of the Interpreters and Deaf Signers.
- (ii) Professional Indian Sign Language Interpreters who have experience on working for the deaf community.
- (iii) The Deaf Signers who have experience on working for the deaf community.

D. Repeat broadcasts

- (i) Once real-time news is aired, its repeat broadcasts must be provided with closed captioning **and Indian Sign Language Interpretation** as soon as possible. Whenever possible, in case of news, teleprompter captions may be used to quickly show captioning with little delay.

9. **Equipment**

- (i) End-user equipment must support access services. Manufacturers and Retailers of television remote controls should ensure that all such equipment and software that is sold to the public is compliant with applicable universal design standards and considers the needs of **hearing impaired Deaf & Hard of Hearing**.
- (ii) End-user equipment can also sometimes be very difficult to use for people with sensory and physical disabilities. As such, Service Providers and manufacturers of consumer equipment for audio-visual content must ensure that viewers who are **hearing impaired**

Deaf & Hard of Hearing and/or who use hearing aids, will be able to hear the programme aided by the use of wireless connections between the audio-visual content receiver and the hearing aid itself, or, wired connections between the audio-visual content receiver and an assistive listening device of the viewer's choice.

10. Electronic Programme Guides (EPGs)

- (i) Where applicable, service providers should ensure that the programme synopsis in the EPG indicates which programmes are accompanied by access services, using the following internationally recognized access service icons - closed captioning (CC), subtitles for the deaf and hard of hearing (SDH) and Indian Sign Language Interpretation (ISL). Where practicable, these abbreviations should be explained in an appropriate part of the EPG.
- (ii) If non-standard terms are used in any part of the EPG, and removal or replacement by the standard abbreviations would require software or hardware updates, this should be done at the next reasonable opportunity.
- (iii) Service providers should ensure that they provide accurate and timely information to EPG and other TV programme listing providers about television access services. Service providers should include in programme synopsis (provided such information is provided) about which programmes include access services.
- (iv) Service providers should ensure that EPGs provide information about assistance in relation to programmes (e.g. how to navigate programme listings, and how to operate television access services such as closed captioning and Indian sign language interpretation), as well as facilities for making use of that assistance.
- (v) Service providers should provide an easily accessible part of the EPG (where practicable) or alternatively in other accessible ways (e.g. on websites or interactive services) information for hearing impaired deaf & hard of hearing on:
 - How to use the EPG;
 - How to use the access services accompanying the programmes;
 - What options exist for customizing the appearance of the EPG to make it easier to use; and
 - What additional sources of help and information are available in other places (e.g. on websites, or from telephone/ text phone or SMS (helplines)/Telegram Chat/Whatsapp Chat, whether from the EPG provider, or Service provider.
