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Information technology — User interface component accessibility — Part 2x: Visual presentation of audio information in sign languages

Technologies de l'information — Accessibilité du composant interface utilisateur — Partie 2x: XXXXXXXXX

Contents

Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 35, *User interfaces*.

A list of all parts in the ISO/IEC 20071 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Sign languages are used to make auditory information accessible to deaf and hard of hearing sign language speakers.

Just as there is no one oral or written language, there is no one signed language. This document provides guidance that can be applied to any individual sign language. As natural languages, any individual sign language can be used to provide a linguistic equivalence of another spoken, written, or signed language.

This document provides recommendations on the production and display of the visual presentation of audio information in a signed modality. This supports users who are fluent in a sign language regardless of whether they can make use of the information in audio content.

The use of this document helps to support universal and inclusive media content production practices. It provides guidance for producers, exhibitors, or distributors of audio information (including the medium of distribution and the medium of delivery) to support the accessibility and usability of visual alternatives of audio information in a sign language.

Providing visual presentations of audio information in sign languages presents issues that are unique to the signed modality. However, they are beneficial to all, particularly diverse users who cannot hear or understand the information presented in audio content in diverse contexts but can understand one or more sign languages.

Although this guidance acknowledges the need of visual presentations of audio information to provide non-visual presentations for diverse users, it does not include guidance for producing non-visual presentations, such as spoken captions/subtitles (see ISO/IEC TS 20071-25 for further reference) and tactile displays (e.g. braille, tactile signing). For guidance on the general use of visual presentations of audio information, including text-based methods such as captions and subtitles, see ISO/IEC TS 20071-23. The production, delivery, and exhibition of visual presentations of audio information based on this standard are not intended to interfere with or change the audio information.

Information technology — User interface component accessibility — Part 2x: Visual presentation of audio information in sign languages

1 Scope

This document provides guidance for producers, exhibitors, and distributors on the visual presentation of alternatives to audio information in audiovisual content using sign languages.

This document provides recommendations that are intended to support users who prefer to use a visual representation of audio information or prefer both audio and visual presentations.

This document acknowledges the various needs and preferences of viewers (end users) as well as the different approaches to visual presentation of audio information. It recognises the need for viewers to have some fluency in a sign language to use the resulting visual presentation. It applies to all presentations of visual alternatives to audio information intended to be presented in a sign language.

This document does not apply to the presentation devices or transmission mechanisms used to deliver the content or visual presentations of audio information. These devices could include, but are not limited to: televisions, computers, wireless devices, projection equipment, DVD and home cinema equipment, video game consoles, and other forms of user interfaces technology. This document does not apply to transcoding files and formats for the various video outputs.

This document gives guidance on visual presentations which are translated or interpreted into one or more individual sign languages. This document does not apply to the specific process of sign language translation or interpretation. This document does not apply to manual-visual communication systems (e.g. Cued Speech).

This document helps to improve accessibility. This document does not establish requirements on specific industries (e.g. television broadcasting, motion pictures) nor is it intended to supersede specific international standards within their domain.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

3.1
information

knowledge concerning objects, such as facts, events, things, processes, or ideas, including concepts, that within a certain context has a particular meaning

Note 1 to entry: Although information will necessarily have a representation form to make it communicable, it is the interpretation of this representation (the meaning) that is relevant in the first place.

[SOURCE: ISO/IEC 2382:2015, 2121271]

3.2
content
interactive or non-interactive object containing information represented by text, image, video, sound, or other media

[SOURCE: ISO/IEC/IEEE 23026:2015, 4.6]

3.3
sign language presenter
person expressing themselves using signed language

3.4
individual sign language
NOT: signed language
individual language having the visual-spatial language modality as basic modality

Note 1 to entry: Usually "sign language" appears as part of the name of the respective individual sign language.

EXAMPLE: ASL (= American Sign Language); LSQ (= Langue des signes québécoise); LIBRAS (= Língua Brasileira de Sinais / Brazilian Sign Language)

Note 2 to entry: Individual sign languages are not to be confused with the use of signed language, the signed modality for expressing any individual language, such as Signing Exact English, a modality (signed language) for expressing English (see 3.5).

[SOURCE: ISO CD 639-4:2019, 3.1.4, modified]

3.5
signed language
NOT: sign language
visual-spatial language modality that uses a combination of hand shapes, palm orientation and movement of the hand, arm, head or body, and facial expression

Note 1 to entry: The language modality "signed language" must not be confused with (an) "(individual) sign language" which designates full individual languages which have signed language as their main/basic modality (as opposed to spoken languages).

Note 2 to entry: signed language is the basic language modality for sign languages.

[SOURCE: ISO CD 639-4:2019, 3.5.4, modified]

3.6
signing
interpretation or translation of audio content, visually presented in a signed modality together with the audio content

Note 1 to entry: Interpretations or translations include speech and/or non-speech information.

3.7
open signing
signing visually presented regardless of user preference

3.8
closed signing
signing visually presented only in response to user preference

3.9
non-speech information
NSI
part of the audio content, other than spoken words

Note 1 to entry: NSI can convey information about: plot, humour, mood, or meaning of a spoken passage.

EXAMPLE Speaker identification information (e.g. off-screen speakers and multiple on-screen speakers), sound effects, music (e.g. singing, background music, instrumentation), manner of speaking (e.g. whispering, emotion, word emphasis), audience reaction (e.g. laughing, groaning, booing).

3.7
signing container
area presenting signed language content

Note 1 to entry: There can be multiple signing containers presented at the same time.

Note 2 to entry: Signing containers can be displayed to indicate where the presentation of signed content will appear in the future or has appeared in the past.

EXAMPLE Picture-in-picture and inset windows are common examples of signing containers.

3.8
audiovisual content
content that includes audio and visual components

Note 1 to entry: Only the audio or the visual components might be active at some times within the presentation of audiovisual content.

3.9
video
combination of audio and visual content presented together in a synchronized manner via Information and Communication Technology

Note 1 to entry: While the visual content is often presented using a screen, it might also be presented via other technologies e.g. a projected hologram.

[SOURCE: ISO/IEC TS 20071-25:2015, 2.1.2, modified – Note 1 to entry has been added.]

3.10
content category
<audiovisual> classification of audiovisual content

Note 1 to entry: Content categories are not necessarily mutually exclusive.

Note 2 to entry: When content category is considered from an artistic perspective, it is often referred to as genre.

EXAMPLE Content categories include: dramas, museum and art gallery exhibits, heritage tours, comedies, documentaries, video users' guides and manuals, university lectures, meetings, sporting events, etc.

3.11
importance
level of need for users to know information in the content

3.12
essential (information)
<importance> information that is necessary for users to understand the content and/or its function

3.13
significant (information)
<importance> information that provides a more detailed understanding of the content for most users most of the time

3.14
helpful (information)
<importance> information that provides a thorough understanding of the content for some users

3.15
unhelpful (information)
<importance> information that does not help users understand the content and/or might interfere with that understanding

4 Framework for the visual presentation of audio information in sign languages

4.1 Purpose

Visual presentations of audio information in sign language should aim at providing viewers with alternative or complementary visual information that meets users' needs and contexts of use. It is important that visual presentations of audio information present the information contained in audio content including speech.

4.2 Motivation

Audio content conveys information through verbal and non-verbal sounds. People who might not be able to fully access information in this content include:

a) persons with sensory disabilities such as the deaf or hard of hearing;

b) persons who cannot hear the sound for other reasons (for instance, not having the sound on, or having difficulty to hear the sound in a noisy environment);

c) persons with difficulties accessing the oral verbal content.

NOTE Persons with difficulties understanding oral language include those with cognitive diversity as well as people learning a new language.

Not being able to access the information in the audio content has a direct impact on the understanding and enjoyment of the content. It also implies that certain people are excluded from educational, cultural and social contexts (e.g. when content is discussed by colleagues in informal contexts).

A visual presentation of audio information in sign language should be perceived as equitably as possible to the auditory perception of the content.

Facilitating access to the audio information guarantees access in critical emergency situations where information is provided auditorily and improves the experience of the content in terms of comprehension and enjoyment.

Providing visual presentations of the audio information in sign language enhances access to audio content for those users who can understand the sign language.

4.3 Locations of presentations

There are four locations of visual presentations of audio information in sign language; they can be:

a) co-presentation such that both the oral speaker and the sign language presenter are present in the visual content;

b) superimposed onto the visual content;

c) displayed on the same screen but outside the visual content;

d) displayed on a separate (second) screen or display device.

4.4 Modes of access

There are two ways to access visual presentations of audio information in sign language:

a) Visual presentations of audio information in sign language prepared separately from the content. The viewer needs to use some device or software to access the visual presentation of audio information (e.g. closed signing).

b) Visual presentations of audio information in sign language included together with the content (e.g. open signing).

NOTE Multiple channels might be made available to the viewer, one or more with visual presentations of audio information in sign language and one or more without any visual presentations of audio information in sign language. Viewers select a channel according to their needs.

4.5 Role of the Sign Language Presenter

The sign language presenter presents the sign language content in a manner that can be understood by the community of an individual sign language. This means that there is an expectation that the sign language presenter meets some degree of acceptance as a fluent speaker of a sign language within that sign language community.

A sign language presenter can be a Certified Interpreter, a person who meets or exceeds specific educational and fluency criteria set by a local authority. In this role, the sign language presenter presents a live interpretation or prepared translation of the auditory content in a manner consistent with this document as well as specific professional requirements.

The sign language presenter does not need to be a hearing person. The hearing status of the sign language presenter is less important than their fluency in the individual sign language. This could

require the use of double interpreter conversations. For example, Deaf Interpreters are Deaf or Hard of Hearing individuals who are fluent in a sign language, such as American Sign Language (ASL), and have specialized interpreting training and/or experience. To facilitate communication between the Deaf and Hearing communities, they work together with a hearing interpreter who is fluent in an oral language, such as English, but for whom a sign language is a second or other language. Each interpreter receives the message in one modality, processes it linguistically and culturally, and then passes it on in the appropriate communication mode. The hearing interpreter needs to concentrate on interpreting the English language content. They might use language strategies such as some English or initialized signs that can impact the fluency of the sign language content. The Deaf Interpreter interprets that into a full visual language interpretation while being able to focus more on the expressions and nuances of ASL. This strategy can support deaf audiences with diverse needs including individuals who have low levels of fluency in both the local spoken and signed languages.

Virtual sign language presenters (i.e. avatars) are software systems that produce synthesised signed content. Given the limitations of the technology, the use of signing avatars is appropriate in only very restricted situations. Currently, it is not possible to provide an accurate live interpretation via a signing avatar. An example of a possible appropriate use of a signing avatar is pre-recorded static customer information messages that do not require interaction with the viewer such as instructions on where to line up to board a train.

4.6 Levels of importance

4.6.1 General

There are four levels of importance of audiovisual content (i.e., essential, significant, helpful, unhelpful) to support the understanding of the visual components of the audiovisual content.

Levels of importance depend on the context of use of the audiovisual content, including the use, purpose, and content category of the audiovisual content.

NOTE 1 Level of importance largely changes whether audiovisual content is consumed for entertainment purposes or information purposes. To have an engaging entertainment experience, information contained in audio content such as sound effects, music, an actor's tone of voice, and so on needs to be available in a non-audio modality that supports those who cannot access the audio content.

NOTE 2 Determine the levels of importance from the perspective of the need to match the intended meaning (see 6.1), consideration of output devices (see 6.4), evaluation by viewers (see 6.8 and 6.9), and other specific evaluation methods (see Clause XXX and Annex XXX).

4.6.2 Essential information

Essential information shall be displayed in visual presentations of audio information in sign language.

NOTE 1 Essential information in visual presentation of audio information ensures that all viewers will have access to this information.

NOTE 2 Viewers might be confused as to what the audiovisual content is presenting without essential information.

NOTE 3 Viewers have no idea why the audio content is there or what the audio content is for without essential information.

NOTE 4 Essential information might include the essence, purpose, function, or intent of the audiovisual content.

4.6.3 Significant information

Significant information should be displayed in visual presentations of audio information in sign language. Significant information goes into more details about the essential information.

NOTE The amount of significant information to be displayed depends on the amount of essential information that is already available.

4.6.4 Helpful information

Helpful information may be displayed in visual presentations of audio information in sign language.

NOTE 1 Helpful information is specific details that might be of interest to some who are the viewers of the audiovisual content.

NOTE 2 Helpful information can provide the viewer with a better understanding of audiovisual content when the viewer is not familiar with the content.

NOTE 3 Helpful information might reassure the viewers that they have not missed something of greater importance.

NOTE 4 Without helpful information, viewers have a fairly complete understanding of what the audiovisual content is about but might have some things that they still want to know.

4.6.5 Unhelpful information

Unhelpful information should be avoided in visual presentations of audio information in sign language.

NOTE 1 Unhelpful information is not important enough to mention.

NOTE 2 Unhelpful information might result in unintended confusion or misunderstanding of the audiovisual content.

EXAMPLE In a video of a tennis match, the sound of the ball being hit is unhelpful information.

5 Applicability of requirements and recommendations

5.1 Predictable audio contents

When audio content is predictable (e.g. content was recorded, or live but planned, or scripted), all the requirements and recommendations in Clauses XXX - YYY should be evaluated for their applicability to the visual presentation of audio information in sign language.

NOTE Sign language translations are prepared, developed, reviewed, edited and polished before a final version is produced. Providing predictable content gives the translator dedicated time to study the source video content or other material and produce an accurate translation. The translation can then be expressed by the sign language presenter.

5.2 Unpredictable audio contents

When audio content is unpredictable (e.g. content is spontaneous, unscripted, or live without plan or script, and unexpected during the production of visual presentations of audio information in sign language), the requirements and recommendations in Clauses XXXXXXXXXXXXXX may be not applicable.

NOTE Sign language translation does not take place live. While some materials might be available to the sign language presenter in advance, live interpretation is a high-pressure environment allowing little to no preparation.

6 Production of visual presentations of audio information in sign language

6.1 Need to match the intended meaning

Visual presentations of audio information in sign language shall convey the intended meaning of the audio information.

NOTE 1 Intended meaning is established by the original developer of the audio content.

NOTE 2 It is important that visual presentations of audio information in sign language closely match the intended meaning of the audio content. While the experience without the audio content or with any replacement to the audio content is unlikely to be exactly the same as it would be with the audio content, conveying an experience and understanding of the audio content that matches the intended meaning is desirable.

6.2 Ease of understanding of visual presentations of audio information

Visual presentations of audio information in sign language should enable the viewer to easily understand as much as possible the meaning of the audio information of the content.

6.3 Language selection

For visual presentations of audio information in sign language:

a) The sign language used in the visual presentation of audio information shall be identified in a human-readable manner.

EXAMPLE The text “LSQ” is shown near the signing container of a visual presentation of audio information presented in Langue des signes québécoise.

b) Viewers should be able to indicate their preferred language for the visual presentation of audio information in sign language.

c) The sign language used in the visual presentation of audio information should be identified in a machine-readable manner.

NOTE Some systems allow the provider of visual presentations of audio information in sign language to indicate the predominant sign language of the content in the encoding.

6.4 Personalisation of language selection

Personalisation of closed signing visual presentations of audio information in sign language may include limited or edited forms of a sign language presentation as an option.

NOTE Some users need access to “easy to read” variations of language content. This is true in all modalities including written, spoken, and signed content.

6.5 Verification of visual presentations of audio information with the intended output devices

Producers and distributors of visual presentations of audio information in sign language should test the user interaction for accessibility and usability of the presentation on the range of device(s) where it can be expected to be displayed.

NOTE It is important that the devices tested represent the variations in characteristics (e.g. screen sizes) that can be expected.

6.6 Connecting visual presentations of audio information data with content data

Visual presentations of audio information in sign language should be usable together with the content data.

NOTE A visual presentation of audio information is usable by meeting requirements mentioned in this standard such as being appropriately synchronised with the audio content and not obstructing important video content.

6.7 Combining multiple visual presentations of audio information

Visual presentations of audio information in sign language should be usable together with other visual presentations of audio information for the same content.

EXAMPLE A written visual presentation of the audio information such as captions to show the speech content is shown together with a signed visual presentation of the audio information. The two visual presentations of audio information are usable by, for example, not obstructing each other.

NOTE Captioning and signing visual presentations are not incompatible. Given their distinct advantages and disadvantages, neither service can fully replace the other.

6.8 Update of visual presentations of audio information data

If the audio content is revised, visual presentations of audio information in sign language shall be updated to reflect the changed content.

6.9 Evaluation

During the production and distribution processes, the content with the visual presentations of audio information in sign language should be reviewed to confirm that the visual presentations are accurate, are as easy to understand as possible, and provide an equitable alternative to the audio contents from the perspective of viewers who cannot access the audio content.

6.10 Evaluations including contribution of typical users

As part of the evaluation process, typical users of visual presentations of audio information in sign language should be invited to comment on the accessibility and usability of the visual alternative and its use with the content.

7 Visual design

7.1 General

Visual presentations of audio information in sign language shall be displayed in a manner that distinguishes them from background visual content.

7.2 Visibility

Visual presentations of audio information in sign language should be visible and easy to perceive and recognize in space and time irrespective of the circumstances of viewers.

7.3 Personalization

Viewers should have the ability to set their own preferences. The word individualization is also used for personalization.

NOTE ISO 9241-129 and ITU-T Recommendation H.702 provide guidance on individualization.

Where viewers are enabled to set their own preferences, the producer and/or distributor should not override or modify the setting. The default settings for visual presentations of audio information in sign language should apply the design considerations in 7.

Where viewers are not able to set their own preferences, and the producer and/or distributor does, visual presentations of audio information in sign language should apply the design points in 7.

7.4 Engagement

The design of visual presentations of audio information in sign language should consider understanding, enjoyment and engagement of viewers for both audio and background visual content.

7.5 Synchronization of presentations

When audio content is predictable (i.e., content was recorded, or live but planned, or scripted), visual presentations of audio information in sign language should be approximately synchronized with the audio content.

NOTE 1 The syntax and grammar of oral and signed languages are different because they are distinct natural languages. An approximate synchronization implies that the concept being expressed orally starts at about the same time as it is being expressed visually (and vice versa).

NOTE 2 Slightly different editions of the content might not correctly synchronise with the same visual presentations of audio information in sign language. It might be necessary to create different versions of visual presentations of audio information to be used with different versions of the content.

When audio content is unpredictable (i.e., content is spontaneous, unscripted, or live without plan or script, and unexpected during the production of visual presentations of audio information), visual presentations of audio information in sign language should be approximately synchronized with the audio content as much as possible.

NOTE 3 Simultaneous interpretation is characterized by a phase offset, the need to translate from the spoken language into a signed language.

7.6 Avoidance of information obstruction

When presented on the same screen or superimposed onto the visual content (see 4.3), visual presentations of audio information in sign language shall not obstruct the most important areas of visual information in the content.

NOTE 1 Important areas of visual information in the content includes features of the speakers, such as their faces, and lower thirds, such as news crawlers.

NOTE 2 Important areas of visual information include those containing captions and subtitles (see 6.6).

7.7 Modes of display

Special attention should be paid to modes of display (see also 4.6).

8 Signing container

8.1 General

The purpose of the signing container is to provide space and contrast between visual presentations of audio information in sign language and other visual content. It provides the space needed for the sign language presenter and is used when the location of the visual presentations of audio information in sign language is displayed on the same screen but outside the visual content.

NOTE When the location of the visual presentations of audio information in sign language is co-presented such that both the oral speaker and the sign language presenter are present in the same visual content, a signing container is not needed; however, the guidance provided in this section can be used in designing an appropriate scene.

8.2 Sufficient space for visual and signing content

The composition of the video content and signing container content should consider the need for margins around the screen to prevent part of the signed content from being clipped.

8.3 Background colour

If personalization of the background is not possible, the signing container should use a plain, solid, dark colour background to enable contrast between background and sign language presenter and to maximize the understanding of the sign language.

NOTE For deaf-blind viewers, a darker background is necessary (preferably dark blue) to ensure contrast of the figure from the background.

8.4 Background contrast

The colour of the background should provide high contrast against the colour of the sign language presenter's skin and clothing.

8.5 Using background to support content type

Specific background colours may be used to convey the content and/or genre of the audiovideo content.

EXAMPLE A specific background colour is used only for news programming.

8.6 Sufficient size for signed content

The signing container should be large enough to show all the movements of the head, arms, hands,

shoulders, facial expressions, and all other movements.

NOTE 1 Different individual sign languages require different sized signing containers. For example, a sign language that relies on the sign language presenter's stance will require the signing container to be large enough to see the sign language presenter's whole body. For example, a sign language that uses a larger horizontal sign space will require the signing container to be wider.

NOTE 2 In some cases, it is necessary for the video content to minimise the space occupied by the signing container.

8.7 Size

The size of the signing container should be at least half of the height of the video content and one-quarter of the screen width.

NOTE Signing containers that are too small increase viewers' eye strain as they try to follow and understand the sign language presenter.

EXAMPLE A sign language presenter interpreting a television program appears in a container that is half of the height of the television screen.

8.8 Shape

The shape of the signing container should be rectangular.

Circular or oval signing containers should be avoided.

8.9 Sufficient resolution

The resolution of the signing container should enable users to speechread the sign language presenter.

NOTE 1 Different individual sign languages use various expressions of the lips and cheeks for grammatical markers.

NOTE 2 Some viewers can better understand the audio content if the sign language presenter is mouthing the oral speech.

8.10 Placement

If personalization is not possible, the signing container should be located on one of the left or right side of the screen and should not change.

NOTE 1 Local cultural expectations can be used to determine a preferred side.

NOTE 2 Sign language presenter handedness can be used to determine a preferred side (see also 8.11).

8.11 Placement considering the sign language presenter

If personalization is not possible, the placement of the signing container should take into consideration the handedness of the sign language presenter.

NOTE Handedness impacts how the sign language presenter points to objects in the audiovisual content with their dominant hand.

8.12 Obstruction of the signing container

No graphics or other information should obscure the signing container. (See also 6.6 and 7.6.)

EXAMPLE Captioning and signing occupy different spaces on the screen. Neither obstructs viewing the other.

EXAMPLE A news crawler is positioned on the screen such that it does not overlap or intrude into the signing container.

9 Sign Language Presenter

9.1 Clothing contrast

To ensure the clarity of the movement of the hands and full sign expression, the sign language presenter's clothing should have a high contrast to the colour of their skin.

9.2 Clothing patterns

The sign language presenter's clothing should have uniform colour and texture.

9.3 Clothing distortions

The sign language presenter's clothing should not distort their profile.

9.4 Clothing effects

The sign language presenter's clothing should not have any elements which highlight or lead to unwanted effects.

9.5 Use of jewellery

The sign language presenter should not wear jewellery or other objects as these can distract or cause reflections and flashes.

9.6 Consideration of clothing with video genre

The sign language presenter should select their clothing with consideration to the genre of the video content (e.g. political debate or child program).

9.7 Facial perception

The face of the sign language presenter should be free of unnecessary or superfluous elements that reduce the perception of their facial expressions.

9.8 Sufficient framing

The sign language presenter should be framed such that there is space over their head and there is space to allow the full extension and movement of their arms on each of their sides. The bottom limit of the frame is determined by the signing space required to express the sign language (see 8.6).

9.9 Forward framing

The sign language presenter should directly face the camera (i.e. front-plane) using changes to their body position as needed to express the sign language.

NOTE Using a semi-profile shot of the sign language presenter so that the signing container uses less space on the screen can decrease intelligibility for deaf-blind people.

9.10 Transitions between sign language presenters

Changing the sign language presenter should occur at logical breaks within the video content.

EXAMPLE In a news broadcast, sign language presenter changes are planned at each commercial break.

9.11 Camera height

The camera should be at the height of the eyes of the sign language presenter.

9.12 Use of avatars

Virtual sign language presenters (avatars) should be avoided.

When considering the use of a virtual sign language presenter, deaf people should be involved in advising on the appropriateness and quality of the produced signed sentences.

10 Illumination

10.1 Use of lighting

Lighting should be used to:

- Enhance contrast between the sign language presenter and the background.
- Ensure good intelligibility of facial expression, visual definition of hands and moving arms, and other sign details.

10.2 Background shadow

Illumination should avoid shadows in the background.

10.3 Foreground shadow

Illumination should avoid shadows on the face or body of the sign language presenter.

The illumination should avoid shadows on the sign language presenter's hands when they cross in front of the sign language presenter, paying attention to the importance of facial expression.

10.4 Excess light

Good illumination to the body of the signing person should take care to avoid an excess of light.

11 Describing speech

11.1 Describing verbal content

Visual presentations of audio information in sign language should be presented accurately as heard.

If it is difficult to follow the visual presentation of audio information in sign language because of the speed of speech or amount of information to convey, the presentation may be limited to the presentation of the essential information in the audio content.

11.2 Grammar

When poor use of language (e.g. poor grammar) is present in the audio content, the sign language presenter should convey this information if it is important.

11.3 Vulgar verbal content and slang

If the audio content includes slang, vulgar language, discriminatory language, culturally unsuitable expressions, or other potentially inappropriate expressions, the sign language presenter should convey this information.

11.4 Indiscernible audio content

Where verbal content is not clear, the sign language presenter should indicate to the viewer that what is being spoken is unclear.

11.5 Confirmation by content producers when producing visual presentations of speech

When some important speech is difficult to explain, clarification and assistance should be sought from the producers or directors of the audiovisual content.

NOTE A script or screenplay might suffice, if contacting the producers or directors is impossible.

11.6 Sources of information

When producing visual presentations of audio information in sign language, information provided by the producers of the content may be used as a reference.

NOTE 1 This can include pre-production or post-production scripts, screenplays, or other materials, if they are available.

NOTE 2 The speech of the audio content is likely different from that written in the original screenplay or script.

12 Non-speech information (NSI)

12.1 General

The levels of importance contained in 4.7 shall be used to determine which NSI is to be presented.

NOTE Music, emotion, and silence are types of NSI which have additional guidance. See Clause 13, 14, and 15.

12.2 Describing NSI

Signs can be used to visually present NSI (e.g. sound effects, ringtone, doorbell, etc.).

When presenting NSI the sign language presenter should clearly distinguish NSI from speech.

12.3 Correct description of NSI

Signs used to visually present NSI shall correctly convey the sound, which can be achieved by conveying the sound itself, its source, and/or its function.

EXAMPLE 1 “barking”

Signs used to visually present NSI should correctly convey the source.

EXAMPLE 2 “dog barking”

Signs used to visually present NSI may convey the function or purpose.

EXAMPLE 3 “dog barking at intruder”

12.4 Well-known sound descriptions

Care should be taken to use signs that are commonly and widely recognized to represent the particular sound.

12.5 Censored language

If a vulgar word has been bleeped out or simply silenced, the sign language presenter shall convey this.

12.6 Paralinguistic sound effects

When speech includes paralinguistic sounds, the sign language presenter should convey this.

NOTE Paralinguistic sounds include laughter, coughs, grunting, crying, etc.

12.7 Discrete and sustained sound effects

Signs used to visually present NSI shall correctly convey whether the sound is discrete or sustained.

NOTE 1 Non-speech sounds that have a clear beginning and end are discrete sounds.

EXAMPLE 1 “laughs”, “shouts”

NOTE 2 Non-speech sounds that have an on-going action, repetition, or overlapping on-going action are sustained sounds.

EXAMPLE 2 “laughing”, “shouting”

NOTE 3 When a sustained sound lasts longer than the original sign describing its presence, additional signing can be used to show it is on-going.

EXAMPLE 3 “laughing continues”

NOTE 4 When a sustained sound stops, a new sign can be used to show it has stopped.

EXAMPLE 4 “laughing stops”

12.8 Confirmation by content producers when producing visual presentations of NSI

When some important sound(s) is difficult to explain, clarification and assistance should be sought from the producers or directors of the audio content.

NOTE A script or screenplay might suffice, if contacting the producers or directors is impossible.

12.9 Sources of information

When producing visual presentations of audio information, information provided by the producer or director of the content may be used as a reference.

NOTE 1 This can include pre-production or post-production scripts, screenplays, or other materials, if they are available.

NOTE 2 The sounds of the finalized audio content are likely different from those written in the original screenplay or script.

13 Music

13.1 General

The levels of importance contained in 4.7 shall be used to determine which music related information is to be presented.

NOTE Music is a type of NSI. Further applicable guidance can be found in Clause 12.

13.2 Describing presence of music

If the audio content includes music, the sign language presenter should convey the presence of music.

13.3 Describing the reason or purpose for the music

If the audio content includes music, the sign language presenter may convey the reason or purpose for the music.

NOTE This description might need to reference cultural information, historical information, and/or the emotion evoked to explain the purpose of the music.

EXAMPLE 1 In the movie "Jaws",[1] viewers need to know that the shark theme is playing to know that the shark is about to appear.

EXAMPLE 2 In the "Star Wars"[2] film series, viewers need to know that the Jedi theme is playing to show that the story is shifting from the Empire to the Jedi worlds.

13.4 Provide information that identifies the music

If the audio content includes music, the sign language presenter may provide the name, artist, and other identifying information for the music.

NOTE This information would normally be recognized by a person who can hear the music.

13.5 Clarification of music descriptions

Care should be taken to use signs commonly and widely understood to describe the music.

Every attempt should be made so that viewers who have difficulty in hearing or accessing the music are supported by the description of the music.

13.6 Presentation of lyrics

It is not enough to merely indicate that music is playing.

The levels of importance contained in 4.7 shall be used to determine which lyrics are to be presented.

13.7 Confirmation by content producers when producing visual presentations of music

When producing visual presentations of audio information in sign language for music, clarification and assistance should be sought from the producers or directors of the content.

13.8 Sources of lyrics

Since music in the content might differ from the original source of the lyrics, any visual presentations of audio information in sign language of lyrics should ensure it accurately reflects the lyrics clearly heard in the completed version of the audio content.

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[1] Jaws (1975). Director: Steven Spielberg. Producer: David Brown, Richard D. Zanuck, Universal Pictures. https://www.imdb.com/title/tt0073195/.

[2] Star Wars (1977). Director: George Lucas. Producer: Gary Kurtz, George Lucas, Rick McCallum, Lucasfilm, Twentieth Century Fox. https://www.imdb.com/title/tt0076759/.

14 Emotions

14.1 General

The levels of importance contained in 4.7 shall be used to determine which intended emotional nuance related information is to be presented.

NOTE Emotion is a type of NSI. Further applicable guidance can be found in Clause 12.

14.2 Describing intended emotional nuance

Visual presentations of audio information in sign language should convey as much as possible the intended emotional nuance.

EXAMPLE 1 The sound of a chainsaw in the film "The Texas Chainsaw Massacre"[3] has a very different significance than the same sound in the cartoon short "Box Office Bunny"[4], a Bugs Bunny cartoon where Daffy Duck and Elmer Fudd are also chased by a character with a chainsaw. The first uses the sound effect to strike fear into the viewer, the second uses a similar sound effect for humour. In the first case the sign language presenter could convey a "scary revving chainsaw" while in the second case the sign language presenter might simply express the presence of the sound "chainsaw motor" or ignore the sound altogether.

EXAMPLE 2 If someone screams, the emotional purpose of the scream (e.g. terror, fear, joy, glee, surprise or other emotional purpose) needs to be conveyed by the sign language presenter.

14.3 Describing the reason or purpose for the emotional nuance

The reason or purpose for the emotion may be presented.

14.4 Confirmation by content producers when producing visual presentations of audio information of emotions

When producing visual presentations of audio information in sign language to convey emotions, clarification and assistance on the emotional intent should be sought from the producers or directors of the content so that producers of visual presentations of audio information avoid imposing their own emotional interpretations.

NOTE If contacting the producers or directors is not possible, a script or other information source is used as reference. However, sometimes the script is changed in the production process of the content.

15 Silence

15.1 General

The levels of importance contained in 4.7 shall be used to determine which silence-related information is to be presented.

NOTE Silence is a type of NSI. Further applicable guidance can be found in Clause 12.

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[3] The Texas Chain Saw Massacre (1974). Director: Tobe Hooper. Producer: Tobe Hooper, Kim Henkel, Vortex. http://www.imdb.com/title/tt0072271/.

4 Box-Office Bunny (1990). Director: Darrell Van Citters. Producer: Warner Bros. Animation, Warner Bros. http://www.imdb.com/title/tt0099171/.

15.2 Describing intentional silence

Intentional silence shall be indicated by corresponding sign(s) and the sign language presenter's resting posture.

15.3 Describing prolonged silence

When the silence continues more than two seconds, visual presentations of audio information in sign language should indicate the prolonged silence.

15.4 Describing the reason or purpose for the silence

The reason or purpose for the silence may be presented.

16 Identifying speakers

16.1 General

When audio content is designed for viewers to be able to identify the speaker, visual presentations of audio information in sign language shall be designed to easily identify the speaker

EXAMPLE 1 When a hearing viewer is not expected to know the names of minor characters the sign language presenter generally avoids descriptive identifiers too.

When audio content is designed to hide the identity of the speaker, visual presentations of audio information in sign language shall use a general expression that does not identify the speaker.

NOTE General expressions include: "man", "police officer."

EXAMPLE 2 A person walking through a crowded street is yelled at from an unknown voice somewhere in the crowd. The viewer is not expected to know at this point who exactly is yelling. The sign language presenter might show that the voice came from somewhere in the crowd, but would not indicate who the speaker might be.

16.2 Means of identifying speakers

Speakers shall be identified through one or more of the means described in 16.3 to 16.5.

The means used to identify speakers shall be consistent throughout the visual presentation of audio information in sign language.

NOTE It is important that the means of identifying speakers used is consistent throughout multiple episodes of audiovisual content.

The means used to identify speakers should respect applicable national and/or cultural conventions.

16.3 Identifying speakers by name

The speaker's identity may be conveyed by using the name of the speaker.

NOTE The name of the speaker can be a name sign or a full or abbreviated finger spelling of the name.

The sign used to identify a particular speaker shall be consistent within the same content and across related contents.

16.4 Identifying speakers by pointing

The speaker's identity may be conveyed by pointing.

EXAMPLE 1 The sign language presenter points to the speaker in the video.

EXAMPLE 2 The sign language presenter points off-screen to indicate an off-screen speaker.

16.5 Multiple visual presentations of audio information

Multiple sign language presenters may be displayed simultaneously when speech between speakers is very fast and insufficient time is allowed for each speaker to have their own visual presentation of audio information in sign language individually displayed.

When using multiple sign language presenters simultaneously, spacing and placement should clearly indicate who is speaking.

17 Considerations for news programming

To be developed

18 Evaluating quality of visual presentations of audio information

18.1 General

During or after production, visual presentations of audio information in sign language should be evaluated to ensure that an appropriate quality has been maintained.

18.2 Quality review process

The process of producing visual presentations of audio information in sign language should ensure that the nature of each sound has been reflected in the visual presentation with the producer of the content.

Annex A
(informative)

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To be determined.

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[3] ISO/IEC/IEEE 23026:2015, *Systems and software engineering — Engineering and management of websites for systems, software, and services information*

[4] ISO/IEC TS 20071-21:2015, *Information technology — User interface component accessibility — Part 21: Guidance on audio descriptions*

[5] ISO/IEC 20071-23:2018, *Information technology — User interface component accessibility — Part 23: Visual presentation of audio information (including captions and subtitles)*

[6] ISO/IEC TS 20071-25, *Information technology — User interface component accessibility — Part 25: Guidance on the audio presentation of text in videos, including captions, subtitles and other on-screen text*

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