
**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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*Technologies de l'information — Accessibilité du composant interface
utilisateur —*

*Partie 25: Lignes directrices sur la présentation audio de texte dans
des vidéos, y compris les légendes, sous-titres et autres textes à l'écran*
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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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 ISO documents 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by ISO/JTC1, *Information technology*, Subcommittee SC 35, *User interfaces*.

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

Introduction

Videos are omnipresent in our digital society and are used to inform, educate and entertain audiences. Videos often contain text, which cannot be easily accessed by a wide section of the audience. This text includes captions/subtitles and other on-screen text that is part of the visual content.

Captions/subtitles provide text alternatives to audio elements. Other on-screen text may have various functions. It can be part of the story, as a message written on a piece of paper by one of the characters. It can also provide additional information, such as graphs, emergency alerts or superimposed titles.

Persons who, for different reasons, cannot access on-screen text will benefit from an audio presentation. This oral rendering is often part of audio description (see ISO/IEC/TS 20071-21), an access service providing a description of audiovisual content auditorily, including captions/subtitles and other on-screen text if present. However, some users may only require captions/subtitles and other on-screen text to be made accessible because they already have access to other visual content such as the images.

This document provides guidance for video producers, distributors and exhibitors on the audio presentation of captions/subtitles and other on-screen text. It acknowledges the relationship with existing access services such as audio description. While considering current implementations, as well as future possibilities suggested by research, and bearing in mind possible trade-offs between quantity and quality, this document positions itself for situations in which various access services coexist and users are given the choice to select those best suited to their needs.

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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

1 Scope

This document provides recommendations on the audio presentation of captions/subtitles and other on-screen text for use in all type of videos regardless of the language and technology being used to transmit and present the recorded or live video.

This document applies to making captions/subtitles and other on-screen text accessible to users with various needs, including but not limited to people with learning and reading disabilities, people with cognitive disabilities, people who are blind or have low vision, older people, and non-native language speakers. It does not apply to captions/subtitles or other on-screen text whose content is already provided in the soundtrack in a language and a way users can access.

This document provides guidance on spoken captions/subtitles as a stand-alone access service but it also provides guidance on how to integrate spoken captions/subtitles, other spoken on-screen text and audio description, if needed, in different types of videos.

NOTE 1 Extensive guidance on audio description is provided in ISO/IEC/TS 20071-21.

This document does not consider the devices or transmission mechanisms used to deliver and play the content or the audio presentation of text in videos. These devices include, but are not limited to televisions, computers, wireless devices, projection equipment, DVD and home cinema equipment, cinema equipment and other forms of user interfaces technology. Therefore, this document does not consider transcoding files for the various video and audio outputs.

NOTE 2 Technical matters of transmission and distribution are covered by other documents (e.g. MPEG standards and other technical standards such as IEC 62731:2013).

This document acknowledges the various needs and preferences of users, as well as the different approaches to the audio presentation of text in videos.

It applies to audio presentations intended to be heard simultaneously along with the original video.

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 <http://www.iso.org/obp>

3.1 General terms

3.1.1

video

combination of audio and visual content presented together in a synchronized manner via ICT

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.

3.1.2

programme

complete unit of a recorded or live video

3.1.3

programme category

classification of programmes

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

EXAMPLE Programme categories include documentary, news and information, and drama.

3.2 Audio-specific terms

3.2.1

spoken captions/subtitles

audio captions/subtitles

captions/subtitles that are voiced over the audiovisual content

Note 1 to entry: In this document, the term “spoken captions/subtitles” will be used.

3.2.2

spoken on-screen text

text, other than captions/subtitles, that is voiced over the audiovisual content

3.2.3

audio description

descriptive audio

audiovisual content described in an audio modality

Note 1 to entry: Audio description can also be used to describe locations, directions, and objects.

Note 2 to entry: Audio description can be used to describe sound not easily identified or coming from an unknown source or location.

3.2.4

narrator

person(s) and/or technology which voices the alternative audio information

Note 1 to entry: Alternative audio information includes audio description and/or spoken captions/subtitles and/or spoken on-screen text.

Note 2 to entry: In audio description, narrators are also referred to as describers or audio describers.

3.3 Language of presentation terms

3.3.1

original language

language in which audiovisual content is produced

3.3.2**dubbing**

secondary audio version of a video produced in a language other than the original language of the video and timed to match the voicing of the original actors

Note 1 to entry: The secondary audio version is lip-synchronized and replaces the original dialogue, which cannot be heard.

3.3.3**voice-over**

secondary audio version of a video produced in a language other than the original language of the video which overlaps with the voicing of the original actors

Note 1 to entry: The secondary audio version is not lip-synchronized and does not replace the original dialogue, which can still be heard.

3.3.4**captions/subtitles**

transcription or translation of audio content visually presented together with the content

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

Note 2 to entry: Transcriptions or translations are often suitable for use as an alternative or a complement to the audio content.

3.4 Production terms**3.4.1****pre-mixed production**

process that involves delivering alternative audio information together with the audio stream of the video as one single audio track

Note 1 to entry: Although pre-mixed is used in the definition to refer to the audio mix, it can also refer to a production process in which the original audio (including both the soundtrack and the dialogues), the alternative audio information in the video and the original visual content are delivered together.

Note 2 to entry: Pre-mixed productions are also referred to as broadcast-mixed productions.

3.4.2**receiver-mixed production**

process that involves delivering alternative audio information separately from the audio stream of the video and having them mixed in a device controlled by the user

Note 1 to entry: Alternative audio information can be delivered to the user or be downloaded or streamed from the Internet as separate services or as services mixed in different combinations.

4 Framework and process considerations**4.1 General****4.1.1 Alternate names for the audio presentation of text in videos**

Terms used in this document vary according to country, language, region, video content and type of text in videos.

They include audio subtitles, spoken subtitles, spoken captions, audio captions, to refer to the audio presentation of captions/subtitles. For the purpose of this document, these terms are synonymous, as defined in [Clause 3](#).

They include audio text, to refer to the audio presentation of all text in videos.

NOTE In some jurisdictions, there are precise usages defined for one or more of these terms. Individuals can consult their own country's regulations for the locally appropriate terminology.

4.1.2 Motivation for the audio presentation of text in videos

Videos are everywhere in our society and they often contain text such as captions/subtitles and other on-screen text.

This is particularly the case in countries or regions where captions/subtitles are used to translate content into another language.

All these texts share two features: they are visual and at the same time they are verbal. Users who might not be able to fully access the content include:

- users who cannot access the visual elements: persons with sensorial disabilities such as blind and visually impaired audiences, and also persons who for other reasons (for instance, not being in front of the video display) cannot see the visuals; and
- users with difficulties to access the written verbal content.

NOTE 1 Reading is a complex cognitive process and, very often, the coexistence of visual stimuli and the speed at which written text is presented makes it difficult for certain users to access written text: this includes persons with reading difficulties caused by lack of reading ability, dyslexia or cognitive diversity, but also includes children, the elderly and people learning a new language.

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

Facilitating access to text in videos improves the viewing experience in terms of comprehension and enjoyment, and guarantees access in critical emergency situations where information is provided via text.

Providing an audio presentation of text in videos enhances access to video content.

NOTE 2 While nowadays the audio presentation of text generally contains spoken captions/subtitles only, users also request the audio presentation of other on-screen text.

NOTE 3 While audio description usually includes an audio presentation of all relevant captions/subtitles and other on-screen text, some users only require written text to be made accessible since they already have access to the visual content.

4.2 Types of text in videos

4.2.1 Captions/subtitles

Video content can include:

- a) text which provides a translation of the original language of the video, addressing users who do not understand the spoken words;
- b) text which provides a translation of the original language of the video plus additional features (character identification, sound effects indications, etc.), addressing users who do not understand the language and cannot access the audio;
- c) text which provides a transcription of the original language, addressing users who do not have access to the audio; the transcription can be a verbatim or an edited version of the spoken words, including additional features (character identification, sound effects indications, etc.);
- d) text which provides a transcription of the original language, addressing users who for various reasons have difficulties understanding the spoken words (e.g. strong dialect, bad quality audio).

Depending on function, users, country, language, and region, this text can be referred to as captions, subtitles, subtitles for the deaf and hard-of-hearing (SDH), intralingual or same-language subtitles, and interlingual subtitles.

An audio presentation of captions/subtitles should be provided only when the original dialogue cannot be understood by the user.

4.2.2 Other on-screen text

Video content can include:

- a) logos, which can display text often indicating the name of the company;
- b) credits: opening credits present a selection of the main production and cast members, whilst end credits include a more extensive list with additional information;
- c) superimposed titles, which are used to present the title of the video, often at the beginning, or to insert additional information such as the spatio-temporal settings (some videos also include intertitles);
- d) scrolling texts included at the beginning of a video (e.g. to introduce an episode);
- e) graphs, tables and other figures including text;
- f) scrolling tickers (crawlers/slides), providing emergency alerts, breaking news, running messages from social media, and other information; and
- g) popping-up text messages or captions.

Elements which are part of the story being told in the video can also contain text that is important to be made accessible.

EXAMPLE 1 An object, a piece of paper or a computer screen which is part of a movie can include text.

An audio presentation may not be needed when the information provided by the on-screen text is already delivered auditorily.

EXAMPLE 2 If a news presenter already delivers orally the information included in text presented on screen, there is no need to provide an audio presentation of such text.

Text in videos can use colour, type font, positioning, size and other effects for creative and artistic purposes, adding additional layers of meaning. It is important for these visual elements to be transmitted, if possible, to users who do not have access to the visuals.

4.3 Types of audio presentations of text in videos

4.3.1 Live and recorded spoken captions/subtitles and spoken on-screen text

Live spoken captions/subtitles and spoken on-screen text can be used for live and recorded programmes. They involve creating and delivering audio presentations of text in videos in real time along with the delivery of the original video.

Live productions are typically distributed initially in real time, but might be recorded for later redistribution. In this case, recorded spoken captions/subtitles and spoken on-screen text should be prioritized.

NOTE Although being transmitted live, captions/subtitles can sometimes be semi-prepared when there is a script available. This is known as semi-live captioning/subtitling or as-live captioning/subtitling. The preparation method (live/semi-live) will have an impact on the quality of the caption/subtitles and, consequently, on its audio presentation.