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Focus Group on Audiovisual
Media Accessibility
Technical Report

**Part 2: Vocabulary for ITU-T Focus Group on
Audiovisual Media Accessibility (FG AVA)**

ITU-T



FOREWORD

The procedures for establishment of focus groups are defined in Recommendation ITU-T A.7. The ITU-T Focus Group on Audiovisual Media Accessibility (FG AVA) was proposed by ITU-T Study Group 16 for creation in-between TSAG meetings and it was established on 22 May 2011. The Focus Group was successfully concluded in October 2013.

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Summary

This Technical Report of FG AVA was prepared by Working Group F "Participation and digital media" and it presents a vocabulary that FG AVA had foreseen as a future work item for ITU-T Study Group 16 "Multimedia" and ITU-R Study Group 6 "Broadcasting Service".

1 Terms and definitions

This Technical Report uses the following terms:

1.1 accessibility: The degree to which a product, device, service, or environment is available to as many people as possible. Accessibility can be viewed as the 'ability to access' and possible benefit of some system or entity. Accessibility is often used to focus on persons with disabilities or special needs and their right of access to entities, often through use of *Assistive technology* or *Access Services*.

The existing ITU definition of accessibility "The property of being accessible and useable upon demand by an authorized entity" is in the sense of "access control", a security feature as contained in the ITU-T X-series of Recommendation¹.

Accessibility is strongly related to *Universal Design* when the approach involves 'direct access'. This is about making things accessible to all persons (whether they have a disability or not). An alternative is to provide 'indirect access', by having the entity support the use of a person's assistive technology to achieve access².

1.2 accessibility feature: An additional content component that is intended to assist people hindered in their ability to perceive an aspect of the main content. Examples: captions for the hard of hearing, subtitles in various languages, sign-language interpretation video and descriptive audio³.

1.3 adaptable user interfaces: Adaptable user interfaces are those which can be modified by one (or more) deliberate and conscious choice and action by the user.

1.4 adaptive user interfaces: A user interface is adaptive if the interface can adapt its appearance and/or interaction behaviour to an individual user according to a user profile, device or context characteristic.

1.5 application model: An application model is a representation of the states, transitions and functions of the application.

1.6 assistive technology (AT): AT is an umbrella term that includes assistive, adaptive, and rehabilitative devices for persons with disabilities. It also includes the process used in selecting, locating, and using them. AT promotes greater independence by enabling people to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing, by providing enhancements to or changed methods of interacting with the technology needed to accomplish such tasks. It provides 'indirect access', whereas *Universal Design* provides 'direct access'.

1.7 assistive technology device: A device used by a person with disabilities to prevent, compensate, relieve or neutralize any resulting handicap and that has the ability to interface to an ICT device.

NOTE – The term 'external device' is used for either a mobile external device or an assistive technology device⁴.

1.8 audio description: This is also known as 'video description' and 'described video'. Additional audible narrative, interleaved with the dialogue, which describes the significant aspects of the visual

¹ See Recommendation ITU-T X.1193, "Key management framework for secure internet protocol television (IPTV) services" (2011).

² <http://en.wikipedia.org/wiki/Accessibility>.

³ See Recommendation ITU-T Y.1901, "Requirements for the support of IPTV services" (2009).

⁴ See Recommendation ITU-T V.254, "Asynchronous serial command interface for assistive and multi-functional communication devices" (2010).

content of audio-visual media that cannot be understood from the main soundtrack alone⁵. Audio description is the verbal depiction of key visual elements in media and live productions. The presentation of any description of media involves the interspersing of these depictions with the program's original audio⁶.

1.9 audiovisual content: All kinds of time-based content consisting of images and sounds.

1.10 audiovisual media: Audiovisual media has several connotations, including *Audiovisual Content* and the Distribution Networks and Storage Media used to get the content from those who make it to those who want to use it. A distinction is often made between a *linear* audiovisual media service (audiovisual media service provided by a media service provider for simultaneous viewing of programmes on the basis of a programme schedule) and an *on-demand* audiovisual media service (i.e. a nonlinear audiovisual media service) audiovisual media service provided by a media service provider for the viewing of programmes at the moment chosen by the user and at his individual request on the basis of a catalogue of programmes selected by the media service provider⁷.

1.11 captioning (North America): It is also known as 'same-language subtitling', 'intra-lingual subtitling' and 'subtitling for the deaf and hard-of-hearing' in Europe.

Subtitling in North America is restricted to foreign language programs. This is the equivalent of 'foreign language subtitling' or 'inter-lingual subtitling' in Europe. Captioning is the process of converting the audio content of a television broadcast, webcast, film, video, CD-ROM, DVD, live event, or other productions into text and displaying the text on a screen or monitor.

Captions not only display words as the textual equivalent of spoken dialogue or narration, but they may include speaker identification, sound effects, and music description. Captioning aims to include as much of the original language as possible. However, altering the original transcription may be necessary to provide time for the caption to be read and for it to be in synchronization with the audio⁸.

Captioning may be presented as text or, in the case of foreign-language dialog, read aloud in the form of *Audio Captioning* (North America) also known as '*Spoken*' or '*Audio Subtitles*' in Europe. The service may be something the viewer has to select (*Closed Captioning*) or may be an integral part of the image (*Open Captioning*).

Where possible *Intra-lingual Captioning* is *pre-prepared*. When produced live, this is done using some kind of *Stenography*, *Re-speaking* or, in certain limited content domains such as weather, directly with speech recognition.

1.12 captioning, audio: It is also known as audio subtitles or spoken subtitles. Audio content of an audiovisual work or sequence in a foreign language is converted into captions or subtitles in the target language. These *inter-lingual captions* are then read aloud. This may be done at the source or in the user's device using *speech synthesis*.

1.13 captioning, closed: Text scrolling on a television display that represents the audio portion of the program, typically provided for the hearing impaired⁹.

⁵ From Terms and Definitions Database Interactive (TEDDI), ETSI. <http://webapp.etsi.org/Teddi/>.

⁶ Based on definition in the Description Key, the Described and Captioned Media Program (<http://www.dcmp.org/descriptionkey/>).

⁷ From Terms and Definitions Database Interactive (TEDDI), ETSI. <http://webapp.etsi.org/Teddi/>.

⁸ Based on definition in the Caption Key, the Described and Captioned Media Program. <http://www.dcmp.org/captioningkey/>.

⁹ See Recommendation ITU-T J.193, "Requirements for the next generation of set-top-boxes" (2004).

1.14 context modelling: It is a representation of information that can be used to characterize the external environment of an entity. An entity is a person, a place, a device, or a product that is considered relevant to the interaction between a user and an application, including the user and applications themselves; also a procedure estimating a probability distribution of prediction error from the context¹⁰.

1.15 control, remote: This is also known as a remote, controller or sometimes channel changer. It is an electronic device used for the remote operation of a machine (television set, set-top box or a personal video recorder (PVR)¹¹) often over very short distances within the home.

The design of such devices needs to consider their usability and accessibility. Blind and partially sighted persons and those with other disabilities often encounter difficulties with remote controls that render them inaccessible¹².

1.16 device model and profile: A device model is a formal machine-readable representation of the features and capabilities of one or several physical components involved in user interaction. A device profile is an instantiation of a device model representing either a specific real device or a stereo type of devices.

1.17 disability: Any restriction or lack, resulting from an impairment, of ability to perform an activity in the manner or within the range considered normal for a human being¹³.

In this context, we are concerned with the term as it is used in the United Nations Convention for the Rights of Persons with Disabilities (UNCRPD).

"The Convention marks a 'paradigm shift' in attitudes and approaches to persons with disabilities. It takes to a new height the movement from viewing persons with disabilities as 'objects' of charity, medical treatment and social protection towards viewing persons with disabilities as 'subjects' with rights, who are capable of claiming those rights and making decisions for their lives based on their free and informed consent as well as being active members of society.

The Convention is intended as a human rights instrument with an explicit, social development dimension. It adopts a broad categorization of persons with disabilities and reaffirms that all persons with all types of disabilities must enjoy all human rights and fundamental freedoms. It clarifies and qualifies how all categories of rights apply to persons with disabilities and identifies areas where adaptations have to be made for persons with disabilities to effectively exercise their rights and areas where their rights have been violated, and where protection of rights must be reinforced¹⁴".

"Discrimination on the basis of disability' in the *Convention on the Rights of Persons with Disabilities* means any distinction, exclusion or restriction on the basis of disability which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social,

¹⁰ See Recommendation ITU-T T.87, "Information technology - Lossless and near-lossless compression of continuous-tone still images - Baseline" (1998).

¹¹ Personal video recorder (PVR).

¹² See Recommendation ITU-R F.762-2, "Main characteristics of remote control and monitoring systems for HF receiving and transmitting stations" (1995).

¹³ See Recommendation ITU-T E.135, "Human factors aspects of public telecommunication terminals for people with disabilities" (1995).

¹⁴ CRPD introduction on the UN website: <http://www.un.org/disabilities/default.asp?navid=13&pid=150>.

cultural, civil or any other field. It includes all forms of discrimination, including denial of reasonable accommodation.¹⁵

1.18 electronic program guide: See *Program guide, electronic*.

1.19 environmental model and profile: An environmental model is a set of characteristics used to describe the environment where the user machine interaction is taking place. It includes all required contextual characteristics besides the user model, the interaction model, the device model, the product and related user tasks. An environmental profile is an instantiation of an environmental model representing either a specific real environment or a stereotype of environments.

1.20 extensible markup language: It is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.

1.21 functional impairment: It refers to 'a person's loss of functional capacity. Functional capacity is the ability or capability of an organ or system to perform its specified function. The existence of a medical condition /.../does not necessarily restrict functional capacity¹⁶'. The UN definition is 'Any loss or abnormality of psychological, or anatomical structure or function'¹⁷.

1.22 hypertext markup language: It is a system of coding information from a wide range of domains (e.g. text, graphics, database query results) for display by the world wide web browsers. Certain special codes, called tags, are embedded in the document so that the browser can be told how to render the information.

1.23 hybrid broadcast broadband TV: This defines a platform for signalling, transport, and presentation of enhanced and interactive applications designed for running on hybrid terminals that include both a DVB compliant broadcast connection and a broadband connection to the internet. It is standardized as [ETSI TS 102 796]¹⁸.

1.24 integrated broadcast and broadband (IBB) DTV service¹⁹: This is a service that simultaneously provides an integrated experience of broadcasting and interactivity relating to media content, data and applications from multiple sources, where the interactivity is sometimes associated with broadcasting programmes²⁰.

1.25 impairment: Any loss or abnormality of psychological, physiological, or anatomical structure or function²¹.

1.26 impairment, age-related: This is a collection of sensory and cognitive impairments. In the general sense, it covers matters such as the deterioration of sight and hearing, memory impairment

¹⁵ CRPD Article 2: <http://www.un.org/disabilities/default.asp?id=262>.

¹⁶ Guide to Social Security Law. Australian Government. http://www.fahcsia.gov.au/guides_acts/ssg/ssguide-1/ssguide-1.1/ssguide-1.1.f/ssguide-1.1.f.270.html.

¹⁷ Director of the World Institute on Disability, <http://www.accessiblesociety.org/topics/demographics-identity/dkaplanpaper.htm>.

¹⁸ See HSTP.IPTV-Gloss "Technical Paper: Glossary and terminology of IP-based TV-related multimedia services" (Draft 2013-10).

¹⁹ See Report ITU-R BT.2267 "Integrated broadcast-broadband systems". BT Series. Broadcasting service (television). August 2013, ITU. Geneva, Switzerland. <http://www.itu.int/pub/R-REP-BT.2267-2013>.

²⁰ See Recommendation ITU-T J.205, "Requirements for an application control framework using integrated broadcast and broadband digital television" (2012).

²¹ See Recommendation ITU-T E.135 "Human factors aspects of public telecommunication terminals for people with disabilities" (1995).

or memory loss²². In principle, there can be other impairments that are related to stages in the person's life.

1.27 impairment, cognitive: It affects the individual's ability to think, concentrate, formulate ideas, reason and remember²³.

1.28 impairment, dexterity: It is a reduced function of arms and hands that makes activities related to moving, turning or pressing objects difficult or impossible. This does not influence speech communication itself but makes it hard to make a phone call or use a wide range of other equipment²⁴.

1.29 impairment, hearing: This is a generic term including both the deaf and hard-of hearing which refers to persons with any type or degree of hearing loss that causes difficulty working in a traditional way. It can affect the whole range or only part of the auditory spectrum which, for speech perception, the important region is between 250 and 4'000 Hz.²⁵

1.30 impairment, visual: Visual impairment (or vision impairment) is vision loss (of a person) to such a degree as to qualify as an additional support needed through a significant limitation of visual capability resulting from either disease, trauma, or congenital or degenerative conditions that cannot be corrected by conventional means, such as refractive correction, medication, or surgery. The loss may cover visual acuity, significant central or peripheral field defects or reduced contrast sensitivity²⁶.

1.31 inclusive design: The design of mainstream products and/or services that are accessible to, and usable by, as many people as reasonably possible... without the need for special adaptation or specialized design²⁷. It is usually a synonym of *Universal Design*.

This list is incomplete in the sense that it conflates standards bodies in different areas: e.g., it includes ABNT but not ARIB, though they are both standards bodies for radio and broadcasting.

1.32 Internet protocol television (IPTV): Multimedia services such as television/video/audio/text/graphics data delivered over IP-based networks managed to support the required level of QoS/QoE, security, interactivity and reliability²⁸.

1.33 key performance indicator (KPI): KPI is a measure of performance. KPIs are commonly used by an organization to evaluate its success or the success of a particular activity in which it is engaged against some declared metric or metrics²⁹.

1.34 lightweight interactive multimedia environment: The multimedia environment for Internet protocol television (IPTV) specified in Recommendation ITU-T H.762. It is a profile of hypertext markup language (HTML), cascading style sheets (CSS), and ECMAScript (Javascript). Together

²² ITU-T FG AVA looked at this not at persons who are elderly but also at the challenges facing children whose intellectual maturity has an impact on their ability to read subtitles.

²³ Industry Canada. Assistive technology links: <http://www.apr.gc.ca/wat/wb14200e.asp?dId=4>.

²⁴ Industry Canada. Assistive technology links: <http://www.apr.gc.ca/wat/wb14200e.asp?dId=123>.

²⁵ Industry Canada. Assistive technology links: <http://www.apr.gc.ca/wat/wb14200e.asp?did=5>.

²⁶ Based on http://en.wikipedia.org/wiki/Visual_impairment.

²⁷ Based on <http://www-edc.eng.cam.ac.uk/betterdesign/whatis/whatis3.html>.

²⁸ See Recommendation ITU-T Y.1901, "Requirements for the support of IPTV services" (2009).

²⁹ Based on http://en.wikipedia.org/wiki/Performance_indicator.

with nested context language (NCL), it comprises ITU-T's multimedia application framework for IPTV services.

1.35 markup language: A formalism that describes a document's structure, appearance, or other aspects. An example of a markup language is hypertext markup language (HTML)³⁰.

1.36 metadata: Structured, encoded data that describe characteristics of information-bearing entities to aid in the identification, discovery, assessment, and management of the described entities.

NOTE – Electronic program guide (EPG) metadata has many applications and may vary in depth from merely identifying the content package title or information to populate an EPG to providing a complete index of different scenes in a movie or providing business rules detailing how the content package may be displayed, copied, or sold.

1.37 nested context language (NCL): A multimedia framework for Internet protocol television (IPTV) and digital TV specified in Recommendation ITU-T H.761³¹. It is based on extensible markup language (XML) and uses Lua as a scripting language. Together with lightweight interactive multimedia environment (LIME), it comprises ITU-T's multimedia application framework for IPTV services.

1.38 program guide, electronic: A service navigation application which is used especially for scheduled linear programs³².

1.39 program guide, on-screen: A guide displayed on the TV screen as distinct from programme listings and guides on other platforms such as the web, mobile phones and in print media.

1.40 remote control: See *Control, remote*.

1.41 set-top box: A device that contains demodulator, de-multiplexer, decoder, other functionalities and interfaces related to signal reception and presentation of the distributed programme at the subscriber's site³³.

1.42 sign language: A sign language (also signed language or simply visual signing) is a language which, instead of acoustically conveyed sound patterns, uses manual communication and body language to convey meaning. This can involve simultaneously combining hand shapes, orientation and movement of the hands, arms or body, and facial expressions to fluidly express a speaker's thoughts.

1.43 sign language interpretation: The conversion of audible content (speech and other sounds) into a sign language, or vice versa, to enable persons who are deaf to access audible information and to allow communication between deaf and hearing persons.

Sign language interpretation can be provided as a video service showing an interpreter who uses hand gestures and facial expression to convey the main audio content and dialogue to sign language and lip readers³⁴.

³⁰ See Recommendation ITU-T J.201, "Harmonization of declarative content format for interactive television applications" (2004).

³¹ See Recommendation ITU-T H.761 v2, "Nested context language (NCL) and Ginga-NCL" (2011).

³² NOTE – In some traditional broadcast services, EPG is defined as an on-screen guide used to display information on scheduled live broadcast television programmes, allowing a viewer to navigate, select, and discover programmes by time, title, channel, genre. This traditional definition does not cover 'catalogues' for on-demand and download services (sometimes called ECG) and bidirectional interactive services (sometimes called IPG) for end-user interaction with a server or head-end. Some EPGs utilize web pages, or teletext to realize this function. [ITU-T Y.1901].

³³ See Recommendation ITU-T H.770 "Mechanisms for service discovery and selection for IPTV services" (2009).

1.44 simulation: Simulation is the process that enables the interaction of the virtual user with the application model within an artificial environment. The simulation can be real time or offline. Real-time simulation can be performed autonomously or manually, where the operator can interact with the environment from a 1st- or 3rd-person perspective. Accessibility assessment and evaluation can be performed automatically or subjectively by the operator.

1.45 smart phone: It is a mobile phone that offers more advanced computing ability and connectivity than a contemporary feature phone.

1.46 stakeholder: A party that holds a business interest or concern in the telecommunications business. A stakeholder owns one or more business administrative domains. Recommendation ITU-T Z.600 defines it as "a person, group, organization, or system who affects or can be affected by an organization's actions"³⁵. In the case of audiovisual media accessibility, the stakeholders are all those who have an impact on, or are influenced by the planning, production, exchange, delivery, use and enjoyment of audiovisual content. ITU-T FG AVA has focused on multi-stakeholder processes (non-normative ITU term).

1.47 subtitles, audio: See *Captioning, audio*.

1.48 subtitles, spoken: See *Captioning, audio*.

1.49 subtitling: See *Captioning*.

1.50 tablet: A tablet or a tablet personal computer (PC) is a device equipped with a touchscreen as the primary input device and designed for personal use.

1.51 user agent: A user agent is any end user software (such as a browser, or any other user interface component) that can retrieve and render application content and invoke requests to the user agent capabilities model to modify the application content.

1.52 user agent capabilities model: A user agent capabilities model is a formal machine-readable representation of the capabilities of the user agent related to user interaction.

1.53 user interaction model: The user interaction model is a representation of the user interaction behaviour with an application. The user interaction (UI) model is maintained UI-agnostic, which means it is independent of the concrete format of user interface output and input data. User interaction model is often also referred to as abstract user interface model as it describes usually user interface objects which will be used for the presentation of the instances of navigation, and whose instances will be used for the presentation of the access elements. They are called abstract because these descriptions are independent of the implementation of the real user interfaces.

1.54 user interface design pattern: This is an approved user interface solution to a recurring design problem. User interface design has a formalized description. For the use in adaptive user interfaces, design patterns have a representation in the form of reusable software components which can be put together to complete user interfaces during runtime.

1.55 user model and profile: A user model is a set of user characteristics required to describe the user of a product. The characteristics are represented by variables. The user model is established by the declaration of these variables. It is formally described in a machine-readable and human-readable format.

34 NOTE - This service comes in the form of supplementary video content, usually smaller in image size to that of the main video content. Ideally, the user can control the position, size and background properties (solid or transparent and the colour, if solid). It is of sufficient temporal and spatial quality to enable sign reading and lip reading. See also [ITU-T Y.1991].

35 Recommendation ITU-T Z.600, "Distributed processing environment architecture" (2000).

A user profile is an instantiation of a user model representing either a specific real user or a representative set of real users.

1.56 user model/profile validation: Validation is the process to determine whether the model is an appropriate representation of the user for a specific application. If the model is mathematical, it would require a statistical validation process. If the model is non-mathematical, then it could be validated through qualitative processes. The type, process and metrics of validation should be standardized.

1.57 video on demand (VOD): A service in which the end user can, on demand, select and view a video content and where the end user can control the temporal order in which the video content is viewed (e.g. the ability to start the viewing, pause, fast forward, rewind, etc.).³⁶

1.58 virtual instance (user, environment, device, etc.): A virtual instance is a representation of a user, environment, device, etc., based on a profile. The virtual instance exists in a computer memory during the runtime of an application.

2 Abbreviations and acronyms

This Technical Report uses the following abbreviations and acronyms:

AT	Assistive Technology
CRPD	Convention on the Rights of Persons with Disabilities
CSS	Cascading Style Sheets
DVB	Digital Video Broadcasting
ECMA	ECMAScript (Javascript)
EPG	Electronic Program Guide
HTML	HyperText Markup Language
IBB	Integrated Broadcast and Broadband service
IPTV	Internet Protocol Television
KPI	Key Performance Indicator
LIME	Lightweight Interactive Multimedia Environment
NCL	Nested Context Language
PVR	Personal Video Recorder
QoS	Quality of Service
STB	Set-Top Box
UI	User Interaction
VOD	Video On Demand
W3C	World Wide Web Consortium
XML	eXtensible Markup Language

³⁶ Note - The viewing may occur sometime after the selection of the video content.

3 References

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- [ITU-T Y.1991] Recommendation ITU-T Y.1991 (2010), *Terms and definitions for IPTV*.

Annex A: FG AVA Technical Reports: Abbreviations

AAC	Advanced Audio Coding
ACMA	Australian Communications and Media Authority
AD	Audio Description
ADHD	Attention Deficit Hyperactivity Disorder
ADLAB	Audio-Description: Life-Long Access for the Blind
AFNOR	Association Française de Normalisation
AODE	Author Once, Deliver Everywhere
API	Application Programming Interface
ASI	Asynchronous Serial Interface (DVB)
ASL	American Sign Language
AST	Audio SubTitle
AT	Assistive Technology
AV	AudioVisual
AVMS	AudioVisual Media Services
CEA	Consumer Electronics Association (North American Association)
CENELEC	Comité Européen de Normalisation Electrotechnique
CC	Closed Captioning
CG	Computer Graphics
CMMB	Converged Mobile Multimedia Broadcasting
COPE	Create Once, Publish Everywhere
CRTC	Canadian Radio-Television and Telecommunications Commission
CSR	Corporate Social responsibility
CSS	Cascading Style Sheet
CVAA	Twenty-First Century Communications and Video Accessibility Act of 2010
DAVIC	Digital Audio Visual Council
DE	Dialogue Enhancement
DMB	Digital Media Broadcasting
DTG	Digital TV Group
DTG	Data-Time Group
DTH	Direct To Home
DTT	Digital Terrestrial Television
DTV	Digital TeleVision

DV	Described Video
DVB-C	Digital Video Broadcasting-Cable
DVBP	Described Video Best Practices
DVD	Digital Versatile Disk
DVR	Digital Video Recorder
e2e	end-to-end
EBU	European Broadcasting Union
EBU-TT	EBU Timed Text
ECCA	European Cable Communications Association
ECL	EuroCableLabs, technical cell of ECCA
ECMA	European Computer Manufacturers Association
EICTA	European Information & Communications Technology Industry Association
EPG	Electronic Program Guide
EPRA	European Platform of Regulatory Authorities
EQ	Equalization
FCC	Federal Communication Commission (of United States of America)
FG AVA	Focus Group on AudioVisual media Accessibility
GPS	Global Positioning System
HBBTV	Hybrid Broadcast Broadband TV
HE	High Efficiency
HoH	Hard of Hearing
HTML	HyperText Markup Language
IBB	Integrated Broadcast-Broadband system
ICT	Information and Communication Technology
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
IMDb	Internet Movie Database
IP	Internet Protocol
IPR	Intellectual Property Right
IPTV	Internet Protocol Television
ISDB	Integrated Services Digital Broadcasting
ISDB-T	Terrestrial Integrated Services Digital Broadcasting
ISO	International Organization for Standardization
ISOBMFF	ISO Base Media File Format

IT	Information Technology
ITU-R	The ITU Radiocommunication Sector
ITU-T	The ITU Telecommunication Standardization Sector
JTC	Joint Technical Committee
KPI	Key Performance Indicator
LIME	Lightweight Interactive Multimedia Environment
LKFS	K-weighted Loudness Full Scale
LUFS	Loudness Units (relative) to Full Scale
MPEG	Moving Picture Experts Group
MSP	Multi-Stakeholder Process
NABC	Needs, Approach, Benefits, Competition
NCL	Nested Context Language
NER-Model	Named Entity Recognizer
NGO	Non-Governmental Organization
OBPD	Organization of Broadcasting for People with Disability
OCR	Optical Character Recognition
OTT	Over the Top
PC	Personal Computer
PDF	Portable Document Format
POPE	Produce Once, Publish Everywhere
PSE	Pidgin Sign English
PVR	Personal Video Recorder
QoS	Quality of Service
QoE	Quality of Experience
QVC	Quality Value Convenience
R&D	Research and Development
RFC	Request For Comment
RNIB	Royal National Institute of Blind People
RTP	Request for Proposal
SAOC	Spatial Audio Object Coding
SDI	Serial Digital Interface (DVB)
SDO	Standards Development Organization
SDP-US	Simple Delivery Profile (for Closed Captions)-United States
SG	Study Group
SMPTE	Society of Motion Picture and Television Engineers

SNR	Signal-to-Noise Ratio
SSN	Speech Shaped Noise
STB	Set-Top Box
STL	Standard Template Library
SWOT	Strengths, Weaknesses, Opportunities, Threats
ToR	Terms of Reference
TSAG	Telecommunication Standardization Advisory Group
TSB	Telecommunication Standardization Bureau
TS	Transport Stream
TTML	Timed Text Markup Language
TTS	Text-to-Speech
TV	TeleVision
UAAG	User Agent Accessibility Guidelines, published by the Web Accessibility Initiative of the Worldwide Web Consortium
UGC	User-Generated Content
UI	User Interface
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
UX	User eXperience
VOD	Video On Demand
W3C	World Wide Web Consortium
WCAG	Web Content Accessibility Guidelines, published by the Web Accessibility Initiative of the Worldwide Web Consortium
WG	Working Group
XML	eXtensible Markup Language