Technical Specification

ISO/IEC TS 20071-40

First edition
2026-03

Information technology — User interface component accessibility —

Part 40: Augmentative and alternative communication (AAC)

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

Partie 40: Communication alternative et améliorée (CAA)

Reference number
ISO/IEC TS 20071-40:2026(en)

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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Foreword

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

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Introduction

Face-to-face communication (e.g. vocal speech and sign language) is the most basic and oldest means of communication between humans. Speech communication only works when the various persons involved share a common natural language. Today, there are over 7 000 natural languages in the world. Speech between two persons not sharing a common language only works if they have one or more translators to assist them.

Pictures are the oldest form of recording communications for other humans to receive at a later point in time. While some pictures can be challenging to understand, simple pictures that clearly represent what is being communicated are a good way of communicating between humans who can see the pictures.

Written text arrived later as a means of recording speech communications. However, there are over 3 000 natural languages that do not have a written form. Thus, written text only works for human-to-human communications where both humans share the ability to use the same written language. Text has recently taken a much more critical role in communications due to the printing of books and the use of text by computer systems. Some people who communicate face-to-face via text find it easier to communicate face-to-face with pictograms.

Pictograms, like early forms of writing in some natural languages, use simple pictures to communicate with persons who cannot speak or use the written form of some natural language.

Augmentative and alternative communication (AAC) makes use of pictograms and other alternate forms of communication to serve a variety of users not able to fully use the available spoken or written language.

NOTE While the most common use of AAC is to facilitate communication or at least one person with langage difficulties, some AAC are also used for vocalization from text or pictograms by people with speech difficulties.

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Information technology — User interface component accessibility —

Part 40: Augmentative and alternative communication (AAC)

1 Scope

This document provides an introduction to and basic guidance on augmentative and alternative communication (AAC) in the information and communication technology (ICT) domain. It also provides common definitions and a framework for the development of further, more detailed guidance relating to aspects of these AACs.

This document recognizes that AAC can be delivered on various ICT devices and the importance of consistency for users across devices. It applies to AAC software and not the devices on which the software is used.

This document recognizes that AAC provides many users with a unique form of communication that is not necessarily based on any specific natural language.

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 terminology databases for use in standardization at the following addresses:

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

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

3.1
augmentative and alternative communication
AAC
assistive technology (3.2) that helps a person to communicate

Note 1 to entry: AAC can be used for face-to-face or remote communications between individuals or to provide communications with information technology (IT) applications.

Note 2 to entry: AAC can be used to express thoughts, needs, wants, questions, commands, and ideas.

Note 3 to entry: The AAC that this document deals with are computer-based.

3.2
assistive technology
AT
equipment, product system, hardware, software or service that is used to increase, maintain or improve capabilities of individuals

Note 1 to entry: Assistive technology is an umbrella term that is broader than assistive products.

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Note 2 to entry: Assistive technology can include assistive services and professional services needed for assessment, recommendation and provision.

EXAMPLE Braille displays, screen readers, screen magnification software, eye tracking devices.

[SOURCE: ISO/IEC Guide 71: 2014, 2.16, modified — Example added.]

3.3
augmentative
<AAC> in addition to speech

Note 1 to entry: AAC can provide picture only, text only or a combination of picture and text communication to augment or replace speech.

3.4
alternative
<AAC> instead of speech

Note 1 to entry: Alternative forms of communication include pictures, speech, and sign language.

3.5
information and communication technology
ICT
technology for gathering, storing, retrieving, processing, analysing and transmitting information

[SOURCE: ISO/IEC 30071-1:2019, 3.2.5]

3.6
diverse users
individuals with differing abilities and characteristics or accessibility needs

[SOURCE: ISO/IEC Guide 71:2014, 2.3]

3.7
non-verbal user
person who cannot or who chooses not to use speech as their primary mode of communication

Note 1 to entry: This can be due to the inability to use speech or to a choice made by the user.

3.8
non-verbal
<AAC> conveying information without using speech

3.9
speech
voice patterns in a given natural language or acoustic signals simulating such patterns

[SOURCE: ISO/IEC 2382:2015, 2120708, modified — Notes to entry deleted.]

3.10
word
a single distinct meaningful element of communication in a given language

Note 1 to entry: Words can be represented in various formats, including writing, graphics, speech, sign language, and tactile patterns.

3.11
pictogram
graphical user interface element representing meaningful information

Note 1 to entry: Pictograms are designed to facilitate communication through a visually accessible approach.

Note 2 to entry: Meaningful information represented by pictograms includes: objects (persons, places, things), actions (and activities), attributes (of objects or actions), and concepts (internal to an individual or used in social interactions).

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3.12
pictogram vocabulary
set of pictograms that serves as part of a graphical modality

3.13
icon
graphical user interface element representing an object or a function of the computer system

Note 1 to entry: Icons differ from pictograms, since icons create actions while pictograms represent concepts without creating actions.

3.14
utterance
<AAC> one or more words presenting the user's communication intent

Note 1 to entry: Human users can create or receive utterances.

Note 2 to entry: In an AAC, the primary format of words is pictograms. Some AAC also use spoken words.

Note 3 to entry: Utterances can convey a statement, question, exclamation, or command.

3.15
dialogue
<AAC> interaction via a series of utterances between a user and one or more other user(s) and/or a system to achieve a goal

3.16
narrative
<AAC> a set of utterances intended to be used together

3.17
diverse contexts
differing contexts of use and differing economic, cultural and organizational conditions

[SOURCE: ISO/IEC Guide 71:2014, 2.8]

3.18
face-to-face
arrangement where two users are physically in the same location

[SOURCE: ISO/IEC 20382-1:2017, 3.1]

3.19
natural language
language which is or was in active use in a community of people, and the rules of which are mainly deduced from usage

[SOURCE: ISO 5127:2017, 3.1.5.02, modified — Note 1 to entry deleted.]

3.20
graphical modality
language modality used in visual communication that uses a system of pictographic symbols

4 Conventions

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