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Part 41: Design and use of pictograms, photos, and icons in augmentative and alternative communication (AAC)

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

Partie 41: Conception et utilisation de pictogrammes, de photos et d'icônes en communication alternative et améliorée (CAA)

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Contents

Page

Foreword ... **iv**
Introduction ... **v**
1 Scope ... **1**
2 Normative References ... **1**
3 Terms and definitions ... **1**
4 Conventions ... **2**
5 Introduction ... **2**
5.1 AAC ... 2
5.2 Pictograms ... 2
5.3 Photos ... 3
5.4 Icons ... 3
6 Requirements and recommendations on pictograms for AAC ... **4**
6.1 Use of pictograms within an AAC ... 4
6.1.1 The main vocabulary of an AAC ... 4
6.1.2 Selecting pictograms from a pictogram vocabulary ... 4
6.2 Design of pictograms for AAC ... 4
6.2.1 Focus on content ... 4
6.2.2 Focus on recognition ... 5
6.2.3 Focus on simplicity ... 5
6.2.4 Focus on clarity ... 6
6.2.5 Focus on consistency ... 7
6.2.6 Focus on respect ... 7
6.3 Organization of pictograms within a pictogram vocabulary ... 7
6.3.1 Categories in a pictogram vocabulary ... 7
6.3.2 Organization within categories in a pictogram vocabulary ... 8
6.3.3 Customization of pictogram vocabularies ... 9
6.4 Design of particular types of pictograms ... 10
6.4.1 Pictograms representing social words / expressions ... 10
6.4.2 Pictograms involving people ... 10
6.4.3 Pictograms representing locations ... 11
6.4.4 Pictograms representing things ... 11
6.4.5 Pictograms representing time ... 12
6.4.6 Pictograms representing abstract concepts ... 12
6.4.7 Pictograms representing activities ... 13
6.4.8 Pictograms representing actions ... 13
6.4.9 Pictograms representing modifiers ... 13
7 Requirements and recommendations on photos for AAC ... **14**
8 Requirements and recommendations on icons for AAC ... **16**
Bibliography ... **18**

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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*.

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

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Introduction

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 available spoken or written language.

Pictograms, like early forms of writing in some natural languages, provide graphic representations of words for communication with persons who cannot speak or use the written form of some natural language.

A set of pictograms provides the vocabulary to be used in a graphical language. There are requirements and recommendations relating to the design and use of individual pictograms and sets of pictograms.

Photographs provide realistic visual representations of particular people, things, and locations. Photos can be used to supplement a set of pictograms. There are requirements and recommendations relating to the purpose, structuring, and use of photos to supplement a set of pictograms.

Icons provide control over the functions of a computer system or some application within a computer system. Icons used by an AAC can come from the computer's operating system or from the AAC itself. There are requirements and recommendations relating to the consistent use of icons within AAC and relating to the differentiation between icons and pictograms.

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Information technology — User interface component accessibility —

Part 41: Design and use of pictograms, photos, and icons in augmentative and alternative communication (AAC)

1 Scope

This document provides requirements and recommendations for the design and use of pictograms, photos, and icons in augmentative and alternative communication (AAC) in the information and communication technology (ICT) domain.

This document recognizes that AAC can be delivered on various sized devices including computer displays, tablets, and smart phones. It applies to pictograms, photos, and icons that can be used on a range of devices. It is not specific to particular devices or the particular software used.

This document focuses on the needs of those users who cannot use a natural language in written or spoken form to communicate with a peer group or the community as a whole. In facilitating communication with those other people, it also serves them.

2 Normative References

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC TS 20071-40, *Information technology — User interface component accessibility — Part 40: Augmentative and alternative communication (AAC)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC TS 20071-40 and the following 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
regular pictogram
pictogram that is selectable for use in composing an utterance

3.2
communication intent
thought process of an individual to communicate an idea

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3.3
user-interface element
user-interface object
entity of the user interface that is presented to the user by the software

EXAMPLE Text, graphic, control.

Note 1 to entry: User-interface elements can be interactive or not.

Note 2 to entry: Both entities relevant to the task and entities of the user interface are regarded as user-interface elements. A user-interface element can be a visual representation or an interaction mechanism for a task object (such as a letter, sales order, electronic part or wiring diagram) or a system object (such as a printer, hard disk or network connection). It can be possible for the user to directly manipulate some of these user-interface elements.

Note 3 to entry: User-interface elements in a graphical user interface include such things as basic objects (such as window title bars, menu items, push buttons, image maps, and editable text fields) or containers (such as windows, grouping boxes, menu bars, menus, groups of mutually exclusive option buttons, and compound images that are made up of several smaller images). User-interface elements in an audio user interface include such things as menus, menu items, messages, and action prompts.

[SOURCE: ISO 9241-171:2025, 3.3.6]

4 Conventions

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5 Introduction

5.1 AAC

Augmentative and alternative communication (AAC) provide or improve communications by diverse users in diverse contexts utilizing symbols that have strong referents to the social word or phrase, person, thing, location, concept, activity, action, or modifier and can thus, be the common format for reliable intent and communication.

NOTE 1 An AAC use a pictogram vocabulary as the basis for constructing these communications.

NOTE 2 ISO/IEC TS 20071-40 provides an introduction to and basic guidance on AAC in the ICT domain. It also provides common definitions and a framework for more detailed guidance relating to aspects of these AAC.

NOTE 3 An AAC can provide embedded vocalization of text or pictograms.

5.2 Pictograms

There are currently many different types of pictograms in use in AAC.

Pictograms are clear and concise highly contrasting images that constitute the general AAC vocabulary for communication and social interaction.

The general vocabulary is used to construct communication intent in an AAC strategy and can be used as a companion language to a natural spoken language.

Significantly designed pictograms encapsulate the communicative intent and transcend national languages and cultural barriers by engaging globally recognized symbols as a means of communication.

Pictograms can have multiple interpretations and can be adapted to cultural and linguistic structures to facilitate communication and social interaction.

A pictogram vocabulary is a set of pictograms that is intended to be able to construct all types of general communications.

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