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Information technology — User interfaces ==

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Part 1:

Requirements and recommendations on making written text easy to read and easy to understand

Technologies de l'information — Interfaces utilisateur —

(standards.itech.ai)

Partie 1:

ISO/IEC FDIS 23859-1

<https://standards.itech.ai/catalog/standards/sist/89fc888b-d8f2-4985-8ca0-d710c648f90c/iso-iec-fdis-23859-1>

Exigences et recommandations pour rendre un texte écrit facile à lire et facile à comprendre

FDIS stage

ISO/IEC FDIS 23859-1:2023(E)

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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 or www.iec.ch/members_experts/refdocs).

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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 23859 series can be found on the ISO and IEC websites.

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 and www.iec.ch/national-committees.

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Introduction

Written text can be printed or digital (or a combination of both) and can be found in different types of content and environments.

Written text can also be found in audiovisual formats.

Written text generally relies on visual perception, but there are also tactile writing systems such as Braille.

This document adopts a universal design perspective. Written text should be created and presented in ways that allow the widest range of people to access it. Universal design shall not exclude adaptation and assistive technologies for particular groups where needed.

This document takes into consideration:

- the various needs and preferences of diverse users,
- the different approaches to the concept of easy to read and understand, and
- a multimodal concept of text, which is a combination of two or more modalities, such as written text, visual elements and audio.

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Information technology — User interfaces

Part 1: Requirements and recommendations on making written text easy to read and easy to understand

1 Scope

This document provides requirements and recommendations on all written text so that it is easy to read and understand in any user interface, regardless of its format.

This document addresses the process of creation, adaptation, and evaluation of written text that is easy to read and understand.

This document does not consider devices or transmission mechanisms used to deliver written text. It does not provide language-specific guidance.

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 General terms

3.1.1

easy-to-understand language

any language variety which enhances comprehensibility

Note 1 to entry: Easy-to-understand language includes *plain language* (3.1.2), *easy language* (3.1.3) and any intermediate variety. These varieties share many recommendations, but the extent of comprehensibility is different as they address different user needs.

3.1.2

plain language

language variety whose wording, structure, and design are so clear that the intended readers can easily find what they need, understand what they find, and use that information

Note 1 to entry: The International Plain Language Federation^[2] defines plain language as a communication in which wording, structure, and design are so clear that the intended readers can easily find what they need, understand what they find, and use that information. In this document, plain language is defined as a language variety for the reasons expressed in Note 1 to entry 3.1.1.

3.1.3

easy language

language variety in which a set of recommendations regarding wording, structure, design and *evaluation* (3.3.3) are applied to make information accessible to people with reading comprehension difficulties for any reason

Note 1 to entry: Easy language is often referred to as “easy-to-read”, but in this document the term “easy language” is preferred as it can be applied not only to written content which is read but also to oral or *multimodal* (3.2.4) content.

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3.1.4

universal design

design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for *adaptation* (3.3.2) or specialized design

Note 1 to entry: Universal design shall not exclude assistive devices for particular groups or persons with disabilities where this is needed.

Note 2 to entry: Terms such as universal design, accessible design, design for all, barrier-free design, inclusive design and transgenerational design are often used interchangeably with the same meaning.

[SOURCE: United Nations Convention on the Rights of Persons with Disabilities, Art. Two [17], modified^[15] — Note 2 to entry has been added]

3.1.5

diverse users

individuals with differing abilities and characteristics or accessibility needs [SOURCE: ISO/IEC 30071-1:2019, 3.2.2.]

3.2 Format and modality related terms

3.2.1

audiovisual

combining sound and image

Note 1 to entry: Adapted from ISO 14641:2018, 3.8.

3.2.2

glossary

alphabetical list of words or expressions with their definitions

Note 1 to entry: The definition can also include an example.

Note 2 to entry: These words or expressions are selected because understanding them is fundamental to understanding the content.

3.2.3

gloss

brief explanatory note of a word or expression that is positioned close to the word or expression being defined

Note 1 to entry: These words or expressions are selected because understanding them is fundamental to comprehending the content.

Note 2 to entry: A gloss can include an example.

3.2.4

multimodal

combining more than one semiotic mode

Note 1 to entry: Semiotic modes include all forms of verbal content (e.g. written text or audio text) and nonverbal content (e.g. images and graphs) in a certain context of use.

3.2.5

paratextual elements

verbal and graphical elements, including images, that complement a written text in order to enhance comprehension

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3.3 Process related terms

3.3.1 creation

process in which a written text is created originally in a way that is easy to read and understand

3.3.2 adaptation

process in which a source written text is changed into a text that is easy to read and understand

3.3.3 evaluation

process to determine whether content is easy to read and understand

Note 1 to entry: This process should be iterative and include not only a technical evaluation by experts but also, and most importantly, an evaluation with end users.

3.3.4 procurement

process which creates, manages and fulfils contracts relating to the provision of *easy-to-understand* (3.1.1) written texts

Note 1 to entry: Adapted from ISO 10845:2020, 3.24.

4 Framework

4.1 Motivation

Written text can be used for various purposes, such as to inform, instruct, educate or entertain readers. Written text can be found in many types of content in our society. However, written text is not always easy to read or understand.

Reading is generally defined as a complex activity associated with two main processes: decoding and language comprehension. Some users can decode written texts but cannot understand its meaning. Other users cannot decode the written text but can understand its meaning if provided by alternative means.

Decoding and understanding of written text depends on the users' ability to perceive the written text before decoding and language comprehension can take place. Good design makes perception easier, i.e. a clear layout with the purpose of making the text easier for the reader.

In daily life, reading sometimes can only seem related to the process of decoding. To highlight the importance of both decoding and language comprehension, the term "easy to read and understand" is used to refer to any language variety enhancing understanding.

All users, regardless of their differing abilities, should be able to access written text in all types of content and in any user interface, regardless of its format. Access can be provided by alternative means. Users will not be able to exercise their right to participate in society fully and effectively if they cannot access content.

4.2 Different approaches for providing easy content

Plain language and easy language are two language varieties which enhance comprehensibility.

Many recommendations are shared among plain language and easy language, but they also have their own specificities. This document includes shared recommendations and comments on what is only relevant for one of the varieties.

By considering different approaches, this document aims to make written text accessible to the widest possible user population.

4.3 User considerations

Users need easy content for different reasons.

User needs vary depending

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- on the circumstances in which the interaction takes place, i.e. reading comprehension can be compromised in a stressful situation or when learning a foreign language.
- on the context in which the human-machine interaction takes place. i.e. reading comprehension can be challenging for a first-time user of an interface, or in a problem-solving situation related to an interface.
- on, e.g. different abilities, cognitive and linguistic difficulties, ageing or low literacy levels, and
- on the users' previous knowledge, interest for a topic, and the textual context.

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4.4 Language considerations

Language structure and writing systems vary between languages and cultures. Therefore, the specific language features that make written text easy can change depending on the language and the writing system. Similarly, there can be cultural and format differences in the ways written text is presented to users.

This document does not provide language-specific guidance but addresses aspects shared between languages and cultures.

National standards and recommendations should consider language-specific features.

EXAMPLE 1 UNE 153101:2018 EX¹⁴ provides language-specific recommendations for Spanish.

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Easy-to-understand written texts can be found in different language situations. Written texts can be

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— created in easy-to-understand language A.

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— created in easy-to-understand language A and then translated into easy-to-understand language B.

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— created in language A and then may be adapted into an easy-to-understand text in the same language A. and

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— created in a language A and then translated into an easy-to-understand language B.

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EXAMPLE 2 A written text can be created in easy-to-understand Slovenian.

EXAMPLE 3 A written text can be created in easy-to-understand Slovenian and then translated into easy-to-understand Hindi.

EXAMPLE 4 A written text can be created in Slovenian and then adapted into easy-to-understand Slovenian.

EXAMPLE 5 A written text can be created in Slovenian and then translated into easy-to-understand Hindi.

Easy-to-understand written texts can be a useful step for interpreting into sign language.

4.5 Formats

Written text can be found in printed formats.

EXAMPLE 1 A book, a newspaper and a leaflet contain written text.

Written text can be found in digital formats.

EXAMPLE 2 E-books and webpages include written text.

EXAMPLE 3 Interactive terminals and smartphones and PC menus include written text.

The same written text can be provided in both digital and printed formats.

EXAMPLE 4 A printed book can be also provided as an e-book.

Written text can also be found on audiovisual formats.

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EXAMPLE 5 A video can include static written text on screen, e.g. a caption indicating a time jump (“Ten years later”).

EXAMPLE 6 A video can include dynamic written text on screen, e.g. interlingual subtitles that provide a translation of the dialogues.

4.6 Functions

Written text can fulfil different functions, e.g. they can be instructive, argumentative, explanatory, descriptive or narrative.

EXAMPLE 1 A recipe is an example of an instructive text.

EXAMPLE 2 A journal article in which one expresses arguments in favour of and against one discussion point is an example of an argumentative text.

EXAMPLE 3 A school book can include explanatory texts about scientific processes.

EXAMPLE 4 A touristic brochure presenting the main city attractions is an example of a descriptive text.

EXAMPLE 5 A children’s story is an example of a narrative text.

It is often the case that written text fulfils different functions at the same time.

EXAMPLE 6 A user interface can include content text, help text, action button text, instructions and hyperlinks. Some of these texts can be interactive.

Any type of written text can be made easy.

4.7 Multimodality

In printed formats, written text is often found together with other visual elements such as pictures, images, symbols and graphs.

In digital formats, written text can also be found together with visual elements such as pictures, symbols and graphs, as in printed formats. Additionally, audio and visual elements, such as slideshows, audio files, and videos are also found in digital formats.

Those elements can be used to draw attention or provide more information. They can also help users to navigate and to understand the written text better.

Sometimes, printed written text refers to elements in digital format, such as webpages with slideshows, graphs, audio files, videos or even more written text.

An adequate combination of different modalities caters to diverse user needs and preferences. Content, including written text and other elements, should be easy. When used in the wrong way, it can make reading and understanding more challenging.

4.8 Technology

Different technologies can support easy text creation, adaptation, evaluation and use. Their implementation shall be evaluated for each particular context of use.

Examples of technologies are:

- automatic text simplification;
- automatic summarization;
- automatic image captioning;
- information design tools;
- machine translation;
- readability and legibility tools;

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