SLOVENSKI STANDARD
oSIST prEN ISO 21801-2:2022

01-februar-2022

Kognitivna dostopnost - 2. del: Poročanje (ISO/DIS 21801-2:2021)

Cognitive accessibility - Part 2: Reporting (ISO/DIS 21801-2:2021)

Kognitive Zugänglichkeit - Teil 2: Berichterstattung (ISO/DIS 21801 2:2021)

Accessibilité cognitive - Partie 2 : Consignation dans un rapport (ISO/DIS 21801-2:2021)

Ta slovenski standard je istoveten z: **prEN ISO 21801-2**

ICS:		
11.180.01	Pripomočki za onesposobljene in hendikepirane osebe na splošno	Aids for disabled and handicapped persons in general

oSIST prEN ISO 21801-2:2022 **en,fr,de**

DRAFT INTERNATIONAL STANDARD

ISO/DIS 21801-2

ISO/TC **173**

Secretariat: **SIS**

Voting begins on:
2021-12-13

Voting terminates on:
2022-03-07

Cognitive accessibility —

Part 2:
Reporting

ICS: 11.180.01

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING

Reference number
ISO/DIS 21801-2:2021(E)

COPYRIGHT PROTECTED DOCUMENT

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

Contents

Page

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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/TC 173/WG 10.

A list of all parts in the ISO 21801 series can be found on the ISO website.

Introduction

This document is intended to be used in conjunction with ISO 21801-1. The intended user of this document is anyone who wants to report the cognitive accessibility of a specific system. Typically, that might be a product owner, manufacturer, designer, or a salesperson. Third party representatives can also use this document for reporting. This document can be used alongside existing standards and accompanying test methods for their systems.

Clauses 5,6 and 7 intentionally correspond to the same numbered clauses in ISO 21801-1 to assist the use of the document.

Cognitive accessibility —

Part 2:
Reporting

1 Scope

This document establishes requirements for reporting the cognitive accessibility of systems, including assistive products, assistive technologies, consumer technologies, and household appliances. This document is intended to increase access to a variety of systems. Designers can use this document along with any existing standards and accompanying test methods for their systems.

NOTE The recommendations for cognitive accessibility are given in 21801-1

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 21801-1, *Cognitive accessibility — Part 1: General guidelines*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21801-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

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

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

3.1
environment
Context determining the setting and circumstances of all influences upon a system.

[SOURCE: ISO/IEC IEEE 42010:2011]

4 Reporting requirements

4.1 General

The report shall be structured in the following sections:

- The name of the system
- A description of the context of use for the system
- Details of the system's conformance to each recommendation

NOTE A template for reporting conformance is presented in Annex A.

4.2 Context of use

It is expected that the system will serve people from a population with the widest possible range of user needs, characteristics, and capabilities, including persons with cognitive impairment. It is important to note that cognitive impairments vary immensely, and it is therefore very important to know the intended users of the system.

While a full context-of-use report is not needed within a report of cognitive accessibility, it is important to identify components of the context(s) for which the cognitive accessibility report applies.

The context of use section of the report shall:

- Identify the goals and tasks for which the cognitive accessibility of the system is being reported.
- Identify the environments for which the cognitive accessibility of the system is being reported.

The context of use section of the report should identify any other sources of relevant accessibility information known about the system.

4.3 Conformance

A report on the cognitive accessibility of a system conforms to this document if it:

a) identifies the system to which it applies,

b) identifies the context(s) in which it applies to (see 4.2),

c) reports on the applicability of each of the recommendations contained in Clauses 5, 6, and 7 of ISO 21801-1 (see 4.4), and

d) reports methods used to confirm that each applicable recommendation is met by the system (see 4.5 and 4.6).

4.4 Structure of the report for each recommendation

The report shall either accept the applicability of a specific recommendation or justify why it is not applicable. In addition, a report may identify remaining challenges that need to be overcome. To support the understanding of whether or not a specific subclause is applicable, this document provides:

- A statement describing a type of system to which the recommendation is most likely to be applicable.
- A statement describing a type of system to which the recommendation is less likely to be applicable.
- Examples of systems to which the recommendation is or is not applicable.

A report on applicability should be consistent with ISO 21801-1.

NOTE Clauses 5, 6, and 7 intentionally correspond to the same numbered clauses and subclauses in ISO 21801-1.

It is important to be **explicit** in justifying a claim of being not applicable. It is equally important to be explicit in justifying why an applicable recommendation is not applied.

The working procedure is to:

1) determine whether the recommendation is applicable or not applicable for the system that is being reported and then

2) describe one of the following scenarios:

a) **If applicable:**

- Describe how the system meets the recommendation or justify why the system does not meet the recommendation.
- Optionally, describe any remaining user needs or goals related to the recommendation, but not met.

b) **If not applicable:**

- Justify why the recommendation is not applicable.

and then, finally

3) describe the method or methods used to evaluate whether the recommendation is met.

4.5 Choosing and implementing methods and approaches for conformance evaluation

Both qualitative and quantitative approaches may be used to evaluate conformance. The nature of measuring cognitive accessibility is rarely binary; that is, the result is not usually a clear “yes” or “no,” but rather “more” or “less.”

EXAMPLE 1 Clause 5.2.8 asks whether a system handles people’s differences in coping abilities adequately. There is no precise measure to assess whether a system handles people’s differences in coping abilities adequately. A combination of methods can demonstrate that a system addresses the problem and that a solution is presented to the user in a reasonable way to support their coping abilities.

NOTE 1 A combination of methods and approaches for evaluating whether recommendations in ISO 21801-1 can be used, depending on the intended context of use and the target population. Methods can also be selected according to the traditions and cultures of the specific domain in which the evaluated system is situated.

NOTE 2 This document does not prescribe specific conformance evaluation methods or approaches. It accepts methods and approaches including self-reporting, third-party evaluations, user tests, data collection on user behaviour and system performance, and automated testing.

NOTE 3 Annex B presents a number of potential methods to use when evaluating whether a system meets the recommendations of ISO 21801-1.

It is important that evaluation is carried out by a multi-disciplinary team of both evaluators and testers who understand the criteria and spirit of ISO 21801-1 to ensure valid, comprehensive, and reliable findings. It is often important that more than one test method is used.

Documentation throughout the development process of a system on how specific guidelines in ISO 21801-1 are being met may be used when doing the conformance evaluation following this document. Using this approach, the recommendations in ISO 21801-1 would be addressed during the development process, with the results included in the final design of the system. This would allow for documenting the reasoning behind the final design and how the features address the guidelines in specific clauses of ISO 21801-1.

There might be previous research on cognitive accessibility connected to a specific domain or a specific type of systems that resulted in a set of recommendations, heuristics, or guidelines. Such recommendations, often presented as checklists, may be used in the evaluation process.

NOTE 4 Meeting a domain-specific checklist – even one that is designed to address accessibility – might not be sufficient to address all the recommendations in ISO 21801-1. Many checklists designed to address accessibility focus on accessibility for people with sensory impairment rather than cognitive impairment. Even domain-specific checklists for cognitive accessibility can address only some of the guidelines in ISO 21801-1.

Quantitative data may be collected and used during the development or evaluation processes to determine whether a guideline in ISO 21801-1 is being met. Data about the system may be collected

directly from the system or by using various third-party data collection tools. Quantitative data may also be gathered during some types of user testing.

NOTE 5 There are several potential methods to collect quantitative data during user testing. Commonly used methods include eye gazing analysis and or performance statistics.

4.6 Participation of people with diverse cognitive abilities

People with diverse cognitive abilities should be invited to participate in the design and development process, in iterative testing during development, and in evaluation of the fully developed system. Data collected from cooperation with people with diverse cognition typically result in a set of qualitative data. This data can be used to draw a conclusion about whether a guideline in ISO 21801-1 is being met.

In all test methods where there is participation of people with cognitive impairments, the focus of the evaluation should remain on the accessibility of the system, not the people involved. In all test methods where there is participation, people with diverse cognition should be included. Efforts should be made to scaffold the methods of participation to allow for participation of people with diverse cognitive abilities.

Evaluations should be performed in a realistic context, including when done in a test lab.

NOTE There are several potential methods for interaction with users. Commonly used methods are user observations, cognitive/barrier walkthroughs, self-reporting protocols, focus groups, and interviews.

5 Reporting on motivation and focus

5.1 General

The report shall consider how people differ in their means of motivation and focus to learn or perform a task.

NOTE For further information see 21801-1.

5.2 Means of motivation

5.2.1 Provide options for recruiting interest

Recommendation 5.2.1 is particularly applicable to:

- Systems that users are likely to use if they realize the system's potential.

EXAMPLE 1 A computer game presents some "easy wins" for first time users and gives glimpses of what is to come if the user proceeds to higher levels.

EXAMPLE 2 A company provides a video and booklet as different ways to demonstrate the benefits of password management software.

Recommendation 5.2.1 is less applicable to:

- A system that provides an obvious incentive for use, or simple means of obtaining a desirable output.

EXAMPLE 3 A microwave oven captures the user's attention when the user has the need to prepare food. The interest is recruited before the use of the microwave oven, making it less important to implement means for recruiting interest in the artefact.

5.2.2 Optimize individual options

Recommendation 5.2.2 is particularly applicable to:

- Systems with more than one option for performing the same task.

EXAMPLE 1 An ATM with language selection.

- Systems with user profiles or adaptable interfaces.

EXAMPLE 2 A streaming service account.

- Systems with multiple users with different needs who change settings back and forth.

EXAMPLE 3 A streaming service account.

- Systems that are frequently used.

EXAMPLE 4 Performing a job or

EXAMPLE 5 Using public transportation.

Recommendation 5.2.2 is less applicable to:

- Systems with only one or limited options.

EXAMPLE 5 An on/off switch.

- Systems without user profiles.

EXAMPLE 6 A water boiler.

5.2.3 Support autonomous use

Recommendation 5.2.3 is particularly applicable to:

- Systems where the outcome of the usage can be very important for the user and where the existence of support from others cannot be taken for granted.

EXAMPLE 1 A system that helps planning trips on public transportation or buying a ticket for public transportation.

- Systems where a failure in using the system independently might cause stigma or decrease self-confidence.

EXAMPLE 2 A system requiring correct spelling when users edit information.

- Systems exposed to a risk of fraud.

EXAMPLE 3 An internet banking application.

Recommendation 5.2.3 is less applicable to:

- Systems where it is expected or socially acceptable to receive support.

EXAMPLE 4 A tax registration system.

5.2.4 Optimize usefulness and relevance

Recommendation 5.2.4 is particularly applicable to:

- Systems that potentially can save a lot of time and energy if the full potential can be utilized by the user.

EXAMPLE 1 A photocopy machine.

- Systems that support accomplishing multi-steps tasks.

EXAMPLE 2 A time management system.