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## Information technology — User interface accessibility —

### Part 1: User accessibility needs

*Technologies de l'information — Accessibilité de l'interface  
utilisateur —*

*Partie 1: Besoins d'accessibilité de l'utilisateur*

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Published in Switzerland

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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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](http://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 and IEC 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](http://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 of 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 [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

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

This first edition cancels and replaces the Technical Report ISO/IEC TR 29138-1:2009, which has been technically revised.

Compared to the previous edition, all clauses in the document have been technically revised. [Annex C](#) provides a full comparison of the content with the first edition.

A list of all parts in the ISO/IEC 29138 series can be found on the ISO website.

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](http://www.iso.org/members.html).

## Introduction

It is important for the whole of society that all people, regardless of their age, size or ability, have access to the broadest range of systems. Issues of accessibility to, and usability of, systems have become more critical as recognition of the number of people (such as older persons, children, persons with reduced abilities and persons with disabilities) with diverse user accessibility needs has increased, technology has diversified and it has become increasingly necessary to use technology to participate fully in life.

The number of people using information and communications technology (ICT) products and services, which combine hardware, software, and network technologies, is increasing, as is the variety of ICT products and services. Our everyday lives are filled with such products and services. Currently available ICT products and services, however, are not always accessible. Typically, the people most excluded by poor accessibility of products and services are those with disabilities and those with limitations due to age. However, they are not the only ones who experience difficulty in operating ICT products, such as personal computers (PCs). It is essential to improve ICT accessibility, so that all people with whatever user accessibility needs can have access to ICT products and services, leading to an inclusive e-society.

This document identifies a set of user accessibility needs that can be used to understand and improve the accessibility of ICT and other systems for diverse users in diverse contexts of use. It recognizes that different users will have different combinations of needs including different combinations of user accessibility needs. By being as comprehensive as possible (at the time of publication), it aims to identify a diverse set of user accessibility needs that, if met, can lead to accessibility for these diverse users. It also recognizes that, as technologies evolve along with increases in our understanding of accessibility, further user accessibility needs might be uncovered. However, this document will still provide the major portion of the total set of all user accessibility needs.

This set of user accessibility needs has evolved from the Technical Report ISO/IEC TR 29138-1:2009 and from the accessibility goals and high-level user accessibility needs of ISO/IEC Guide 71:2014. ISO/IEC TR 29138-1 was developed from the original user needs summary submitted to ISO/IEC JTC1/SWG-Accessibility by the Trace R&D Center of the University of Wisconsin-Madison, developed under funding from the National Institute on Disability Independent Living and Rehabilitation Research (NIDILRR), under grant # H133E030012. This set of user accessibility needs also takes into account accessibility guidance from a number of other ISO and ISO/IEC standards as well as from additional sources.

This document is intended for a wider audience than the previous Technical Report (which was only addressed to standards developers). This expanded audience includes system and service developers and other persons responsible for accessibility.

The set of user accessibility needs contained in this document can be especially useful in identifying needs that might be missing in the requirements of existing accessibility regulations and standards. Consideration of this set of user accessibility needs can lead to greater accessibility in the systems to which they are applied in every domain.



# Information technology — User interface accessibility —

## Part 1: User accessibility needs

### 1 Scope

This document identifies a collection of user accessibility needs that diverse users have of ICT systems to make these systems accessible to them. Each user accessibility need might be required of a system by an individual. Different users can have different sets of user accessibility needs in different contexts.

While this set of user accessibility needs was developed for the domain of ICT, many of the user accessibility needs in this set also apply in other domains.

This document does not provide requirements or specific processes and methods for the application and evaluation of user accessibility needs. However, it could inform the development of such requirements (see 5.4).

This document is not designed for certification purposes or regulatory or contractual use.

The user accessibility needs in this document are intended to inform and encourage those responsible for accessibility to go beyond the minimum provisions of accessibility legislation and regulations.

### 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 terminological 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

##### **accessibility**

extent to which products, systems, services, environments and facilities can be used by people from a population with the widest range of user needs, characteristics and capabilities to achieve identified goals in identified contexts of use

Note 1 to entry: Context of use includes direct use or use supported by assistive technologies.

[SOURCE: ISO 9241-112:2017, 3.15]

#### 3.2

##### **assistive technology**

hardware or software that is added to or incorporated within an ICT system that increases accessibility for an individual

[SOURCE: ISO 9241-171:2008, 3.5 — modified to reference the ICT domain.]