

## ISO/IEC Policy statement



Addressing  
the needs  
of older persons  
and people  
with disabilities  
in standardization  
work

2000



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## Introduction

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It is important for the whole society that all people have access to products, services and environments. The importance of accessibility was recognized when UN member states signed the UN Standard Rules on the Equalization of Opportunities for Persons with Disabilities and the UN Principles for Older Persons. The situation has become more critical with the increasing percentage of elderly people in the population worldwide. While not all older persons have disabilities, the prevalence of disability is highest amongst this demographic group.

The increasing prevalence and complexity of technology in everyday life presents both opportunities and challenges. So that older persons and people with disabilities may participate in society on equal terms, it is necessary to improve the accessibility of products, services and environments. Improved accessibility further enhances the quality of life and reduces discrimination.

The advantages of greater accessibility extend to other domains, as well. Accessible products, services and environments will be used by a larger group of people, so economies of scale can be attained. Moreover, products that meet the essential requirements of these consumers will generate an increase in world trade, as goods become more user-friendly for the entire population. This, in turn, will benefit society as a whole. An illustration of this principle can be found in the development of the remote control for the television set, which came out of improvements made to assist people with disabilities.

This statement is aimed at encouraging the development of standards that promote design that enables the use of products and services by older persons and people with disabilities. There is a continuum of abilities and standards should aim to address the needs of people throughout this continuum. It is recognized that all standards cannot meet the needs of all people with severe and complex disabilities.

Considering and including where possible the requirements of these groups of people at the early design stage will enable producers to design and produce more products and services that more people can use, at little or no extra cost.

Standardization greatly influences the design of products and services that are of interest to the consumer and can therefore play an important role in this field. However, this needs to be considered within the constraint that standards should normally not be design restrictive. Older persons and people with disabilities are important user and consumer groups. Currently, their needs are not being adequately addressed when standards are made or revised. Standards that take into account the needs of these users will have much greater market relevance and help to make products and services more accessible and usable for **ALL**.

Standardization is also applicable to visual, auditory or tactile signals (such as

raised dots, notches, sounds, pictograms or graphical symbols) so that any one signal will convey the same meaning to users worldwide. This concept has generated a “de-facto” standard for numerical telephone keypad orientation and a raised mark on the central 5 key, which are understood and used in the same way throughout the world.

ISO and IEC recognize the need to include the requirements of older persons and people with disabilities in all relevant standards production and revision work. This can clearly be achieved by following the basic principles of:

- Universal or Accessible Design;
- consumer representation of older persons and people with disabilities; and
- relevant information exchange.

## What is Accessible Design? <sup>1)</sup>

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“Accessible Design” is the term used for the process of extending mass market product design to include people who, because of personal characteristics or environmental conditions, find themselves on the low end of some dimension of performance (e.g., seeing, hearing, reaching, manipulating). Accessible Design is not – or should not be – separate from standard mass market design. Rather, it is an extension or elaboration of general design principles to cover a wider range of human abilities or limitations than has traditionally been included in designing products, services and environments.

Thus Accessible Design is a subset of Universal Design<sup>2)</sup> where the term Universal Design covers the design of products for all people and encompasses all design principles. Accessible Design focuses on principles that extend the standard design process to those people with some type of performance limitation (the lower ability end range of Universal Design).

Accessible Design is a balancing act. To begin with, we must acknowledge that it is not possible to design everything so that it can be used by everyone. There will always be someone with a combination of severe physical, sensory and cognitive impairments, who will not be able to use any one specific product. However, it is equally unreasonable to rely on the existence (or development) of special designs for each major product category, to accommodate each and every one of the immense variety of disabilities and combinations of disabilities. Therefore, it is necessary to envisage a combination of approaches to meet the needs of people with disabilities, ranging from the incorporation of features that will make products more widely

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1) Guidelines for the design of consumer products to increase their accessibility to persons with disabilities or who are aging; Trace R&D Center of University of Wisconsin – Madison, 1992.

2) Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design”; the North Carolina State University Center for Universal Design.

and directly usable (“from the box”) to the inclusion of features that make it easier to modify products for accessibility.

For example, Accessible and Universal Design can be achieved for many information technology products by bundling together separate components into customized solutions, using standard hardware and software interconnections.

## Policy recommendations

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ISO and IEC national members are encouraged to consider that older persons and people with disabilities have market relevance, and to adopt the following recommendations in developing policies and strategies, so as to address their needs in all relevant standards production and revision work. Although every effort should be made in drafting standards to take into account the needs of older persons and people with disabilities, it may not always be possible for all standards to address these needs fully. However, relevant technical committees should consider their needs and how they could be addressed, particularly in relation to products, goods and services, in common everyday use.

### **a) Promotion of Universal Design and Accessible Design**

ISO and IEC national members should:

- promote standardization work to ensure that products, services and environments are available, accessible,

usable and safe for all consumers, including older persons and people with disabilities, by adopting the general concepts of Universal Design or Accessible Design (presented in the introduction to this statement) when developing and revising standards;

- raise awareness and provide information for standards developers on the issue of Accessible Design, taking into account ISO/IEC Guide 71 on addressing the needs of older persons and people with disabilities in standards work<sup>3)</sup>;
- coordinate between the standards committees dealing with mainstream products and those with responsibility for technical aids and accessibility standards for older persons and people with disabilities;
- increase the availability of standards and information products in accessible formats;

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3) To be published in principle by mid 2001

- promote the standardization of the interface for adaptations, where they exist, to make products/services more accessible and usable;
- promote among non-standards developers the benefits that can be obtained through the use of guidelines provided in documents such as the ISO/IEC guides related to older persons and people with disabilities.

#### **b) Representation of older persons and people with disabilities in standardization work**

It is important for ISO and IEC national members to:

- ensure the representation of interests of older persons and people with disabilities, as consumers, in the standardization process;
- provide these representatives with the guidance and/or training they require concerning the standardization process, and to

ensure that meetings and committee documents are accessible.

#### **c) Links between research programmes and standardization**

ISO and IEC national members should promote:

- cooperation and information exchange with research programmes on accessibility issues;
- the use in standardization work of the results of existing research in:
  - technical research programmes in ergonomics (including those taking into account the full range of abilities of older persons and people with disabilities) to provide basic information for standardization in the relevant fields;
  - technical research programmes related to product/service accessibility.