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**Information technology — Individualized  
adaptability and accessibility in  
e-learning, education and training —**

**Part 3:  
“Access for all” digital resource  
description**

*Technologies de l'information — Adaptabilité et accessibilité  
individualisées en e-apprentissage, en éducation et en formation —*

*Partie 3: Description des ressources numériques relatives à «accès  
pour tous»*

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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.

ISO/IEC 24751-3 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 36, *Information technology for learning, education, and training*.

ISO/IEC 24751 consists of the following parts, under the general title *Information technology — Individualized adaptability and accessibility in e-learning, education and training*:

- *Part 1: Framework and reference model*
- *Part 2: “Access for all” personal needs and preferences for digital delivery*
- *Part 3: “Access for all” digital resource description*

Future parts will address non-digital resource description, personal needs and preferences for non-digital resources, personal needs and preferences for description of events and places, digital description of events and places, and language accessibility and human interface equivalencies (HIEs) in e-learning applications.

## Introduction

In this part of ISO/IEC 24751, the term disability is defined as a mismatch between the needs of the user and the resource offered. It is not a personal trait therefore but an artifact of the relationship between the user and the resource environment or delivery. Accessible systems adjust the user interface of the learning environment, locate needed resources, evaluate the properties of the available resources to match the needs and preferences of the user, and deliver to the learner the most accessible content available.

This part of ISO/IEC 24751 defines accessibility metadata that is able to express a resource's ability to match the needs and preferences of a user, as described by their access for all personal needs and preferences (PNP), already defined in ISO/IEC 24751-2. This part of ISO/IEC 24751 is intended to benefit anyone experiencing a mismatch between needs and preferences and education delivered.

For people with disabilities, whose choice of access modalities is restricted, the process of matching a resource with a user requirement is not a matter of convenience or refinement, but one of utmost importance in ensuring access. As a result, it is necessary for systems to agree upon well-defined interfaces and usage. This closely defined approach is taken by this part of ISO/IEC 24751 to support optimum interoperability.

This part of ISO/IEC 24751 is not judgmental but informative. The purpose is to facilitate the discovery and use of the most appropriate content for each user. Users of alternative access systems need to know whether a resource is compatible with their required access method, e.g. a user who is blind may need audible access to a resource as opposed to visual access.

This part of ISO/IEC 24751 does not describe how to create accessible content; other work has been completed that describes how content and media objects can be made more accessible [see, for example, W3C/WAI Web Content Accessibility Guidelines (W3C/WAI WCAG) for details].

# Information technology — Individualized adaptability and accessibility in e-learning, education and training —

## Part 3: “Access for all” digital resource description

### 1 Scope

ISO/IEC 24751 is intended to meet the needs of learners with disabilities and anyone who is disabled by their context.

This part of ISO/IEC 24751 provides a common language to describe digital learning resources to facilitate matching of those resources to learners' accessibility needs and preferences.

Metadata can be used for at least two accessibility-related purposes: to record compliance to an accessibility specification or standard (e.g. for adherence to legislated procurement policies) and to enable the delivery of resources that meet a user's needs and preferences. This part of ISO/IEC 24751 addresses the latter purpose. Metadata to assert compliance to an accessibility specification or standard is not within the scope of this part of ISO/IEC 24751.

This part of ISO/IEC 24751 is intended to be applied in combination with ISO/IEC 24751-2, which provides a means to describe how a user desires to access online learning content and related applications. This part of ISO/IEC 24751 is intended to describe aspects of a computer system (including networked systems) that can be adjusted to improve accessibility. They are not intended to address non-digital systems that can include physical location, other people, external processes, etc.

This part of ISO/IEC 24751 focuses on the description of the characteristics of the resource that affect how it can be perceived, understood or interacted with by users, including

- a) what sensory modalities are used in the resource,
- b) ways in which the resource is adaptable, i.e. whether text can be transformed automatically,
- c) which methods of input the resource accepts, and
- d) what adaptations are available.

This part of ISO/IEC 24751 provides an information model for describing learning resources so that individual learner preferences and needs (described according to ISO/IEC 24751-2) can be matched with the appropriate user interfaces, tools and learning resources within a computer-mediated learning environment.

### 2 Normative references

The following referenced documents are indispensable for the application 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 639-2:1998 (E/F), *Codes for the representation of names of languages — Part 2: Alpha-3 code/Codes pour la représentation des noms de langue — Partie 2: Code alpha-3*

ISO/IEC 24751-1:2008 (E/F), *Information technology — Individualized adaptability and accessibility in e-learning, education and training — Part 1: Framework and reference model/Technologies de l'information — Adaptabilité et accessibilité individualisées en e-apprentissage, en éducation et en formation — Partie 1: Cadre et modèle de référence*

ISO/IEC 24751-2:2008 (E), *Information technology — Individualized adaptability and accessibility in e-learning, education and training — Part 2: "Access for all" personal needs and preferences for digital delivery*