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Information Technology — Learning, education and training — Access for All (AfA) metadata for accessibility core properties

Technologies de l'information — Apprentissage, éducation et formation — Accès pour tous, métadonnées pour les propriétés essentielles en matière d'accessibilité

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Foreword

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

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.

Introduction

0.1 Purpose and overview

This document is intended to facilitate the matching of resources to individual users' needs using a description of accessibility characteristics of resources chosen by the user. It will enable accessibility services providing automatic matching of resources and resource components to individual user's accessibility needs and preferences.

The properties and definitions within this document are functional; matching can be involved in the discovery, delivery and refinement of a resource (service, product or environment) for an individual user, in a given context, for a specific goal. The document recognizes and supports human diversity. It should not be used to evaluate resources, services or environments with respect to general accessibility, usability or other measures of quality.

This document aims to maximize conformance of AfA properties with ISO/IEC 19788, Metadata for Learning Resources. That standard conforms to the W3C Resource Description Framework so this standard will too.

Within this document, disability is defined as the mismatch between the individual user's stated needs and preferences and the resources, services or environment delivered.

The functional requirements of an individual could be influenced at different times by factors such as the user's context or environment, technical requirements of the user's device, the tools or supports available (e.g., assistive technologies or an assistant), the user's background or training, the goal the user wishes to pursue, or an impairment (disability in the traditional medical sense). Non-digital forms of resources may be involved.

Recognizing the range of possibilities, the focus of this document is to support a process that enables extensible, open and accessible registration of needs and preferences that can be presented as metadata in multiple languages and vocabularies familiar to each user while maintaining interoperability.

This document defines a core set of Access for All properties (AfA properties) for description of the accessibility characteristics of resources and their components and an example of a MLR Application Profile (ISO/IEC 19788-1) is provided. As with metadata defining the subject of a resource (ISO/IEC 19788-2), the property noting the provision of text alternatives for images, for example, is available for matching the resource to the user's needs and preferences. Hence the properties are intended for use also in the description of user functional requirements (needs and preferences).

The AfA properties will be sufficient in many circumstances, but where there is additional information available, or other needs, preferences or resource attributes to be described, additional terms conformant to this document, and thus ISO/IEC 19788-1, can be defined and used without loss of interoperability.

The needs and preferences of users with disability are greatly affected by changes in technology and changes in context and purpose. Users also expect vocabularies that contain familiar words. Typically, application profiles are developed by individual entities for their use while maintaining interoperability. In the case of users with disability, it may be that they create and share application profiles within a community of users and thus keep the standard current.

When resources in their initial form lack accessibility for a user, this may be corrected by the identification or creation of a needed accessible component that can be integrated with the original by a suitable computer service.

0.2 Granularity and refinements

From a data perspective, precision is known as "granularity". In some cases, precision is necessary to avoid ambiguity, in others to increase interoperability, and in yet others to increase local utility, for example. This principle supports global interoperability at the same time as local specificity. The level of granularity required depends on the circumstances and user requirements.

Whether using an assistive technology or not, user needs and preferences of individuals with a disability (from a medical perspective) are frequently very particular with little or no room for variance. A slight