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Information technology — Learning, education, and training — Metadata for facilitators of online learning —

Part 1: **Framework**

Technologies de l'information pour l'apprentissage, l'éducation et la formation — Métadonnées pour les formateurs d'apprentissage en ligne —

Partie 1: Cadre

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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) or www.iec.ch/members_experts/refdocs).

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) or the IEC list of patent declarations received (see patents.iec.ch).

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. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC1, *Information technology*, Subcommittee SC 36, *Information technology for learning, education and training*.

A list of all parts in the ISO 23127 series can be found on the ISO website and IEC websites.

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.

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Introduction

With the rapid development of internet and mobile technologies, online learning facilitation is becoming more and more popular. There are tens of thousands of online facilitation service providers in the market already, such as companies, agencies, or independent facilitators. These online facilitators may work with face-to-face or online LET organizations, they may or may not have certificates on facilitation, teaching, or coaching.

An online learning facilitator (OLF) is someone who provides facilitation, tutoring, and training services on different kinds of online platforms or systems. From present practice, services offered by an OLF include lecturing, coaching tutoring, assessing/evaluating, learning resources design, etc. (see Annex A.1).

In the process of online and hybrid learning, it is very common to describe who the OLFs are. It is important to know the contact information, facilitation preference and ability, facilitation service history, etc. OLF information may be found in or associated with different systems, from online learning systems, training websites, teacher rating systems to HR information systems in schools and universities, etc. (see Annex A.2). But different systems only store and use part of this information according to their business needs and functions.

This document describes how to describe OLF in various IT systems, and also how to exchange this information across different platforms. It creates a metadata structure of OLF information to ensure that education IT systems can store and access this information as needed.

By defining a generic conceptual model, this document specifies a high-level semantic interoperability between bindings of OLF information attributes. In this way, the conversion between different bindings becomes simple and straightforward.

This document can be used in different scenarios:

1) developing an OLF information model for education IT system;

2) maintaining and exchanging OLF data across different IT systems;

3) collecting/harvesting OLF information from different IT systems when needed; and

4) matching OLF to learners in learning management systems according to the services they offer and their expertise.

The ISO/IEC 23127 series has a multipart structure and is integrated via different parts to define and describe various aspects of online facilitators' information. Each part of the ISO/IEC 23127 series is self-contained and has its own scope and purpose. This facilitates use and maintenance of specific parts and thus of the whole standard.

The ISO/IEC 23127 series aims to enable multilingual equivalence and cultural adaptability. This means incorporating and supporting both (1) a top-down requirements approach, i.e., that of jurisdictional domains; and, (2) a bottom-up approach of the requirements of the individual, i.e., human being, as the (final) user, doing so in a global context. To achieve this, the ISO/IEC 23127 series supports both global interoperability and local specificity, such as:

— natural and special languages and associated multilingual requirements;

— jurisdictional, legal, regulatory, and geopolitical constraints as mandated by relevant jurisdictional domain(s).

This document does not provide detailed information regarding multilingual equivalencies or multicultural requirement support.

In the implementation of one (or more) part(s) of the ISO/IEC 23127 series, it is possible that a user may have additional or more precise requirements to implement. This document only defines high-

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level parts of OLF information in online platforms. Users should extend customized information by implementing one or more parts (or combinations).

This document only specifies metadata for OLF and the data structures. Data privacy constraints should therefore be described in implementers' optional application profiles (see Clause 9). This document does not provide detailed information on data privacy protection techniques. OLF's information regarding privacy can be handled and protected with any methods and techniques as needed by implementers.

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Information technology — Learning, education, and training — Metadata for facilitators of online learning —

Part 1: Framework

1 Scope

This document specifies a metadata structure to store, present and exchange online learning facilitator (OLF) information by specifying the data elements and their attributes to describe facilitator's information on various kinds of online education platforms.

This document provides a generic information model of OLF to describe relevant information that applies to the facilitation and training services provided online, and includes information about the person offering facilitation, the affiliation of the person, facilitation ability, facilitation practices, the facilitation service offered, learners' reviews and testimonies, and related social network information. The conceptual data model allows the linguistic diversity of OLF information attributes and offers a flexible metadata schema to describe them.

NOTE 1 Although this document provides suggestions on how to designate metadata elements that require privacy protection, it does not provide detailed methods or techniques for how to implement privacy protection measures.

NOTE 2 For metadata with privacy, the application profile in ISO/IEC 19788-1 can be used to tag data elements concerning privacy and define them with conditions. OLF information privacy protection methods and techniques, such as privacy-by-design, can be selected and applied as needed by implementers.

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/IEC 2382-36, *Information technology — Vocabulary — Part 36: Learning, education and training*

ISO/IEC 19788-1:2011/Amd 1:2014, *Information technology — Learning, education and training — Metadata for learning resources — Part 1: Framework*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 2382-36, ISO/IEC 19788-1, and the following 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 http://www.electropedia.org/

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3.1
online learning facilitator
OLF
body, entity or person who provides facilitation or tutoring services online

Note 1 to entry: An online learning facilitator may or may not be a person; it may be a computer agent.

Note 2 to entry: An online learning facilitator may or may not be a teacher in a traditional school or an instructor in a university.

Note 3 to entry: An online learning facilitator may or may not possess an official certificate on teaching, coaching or facilitation.

3.2
OLF information
online learning facilitator information
recorded information associated with individual *online learning facilitator* (3.1) in an IT system used to support learning, education or training

Note 1 to entry: This information may be created, stored, retrieved, used, etc. by learning technology systems, individuals (facilitators, learners, etc.), and other entities.

4 Abbreviated terms

DEGS data element group specification

DES data element specification

HR human resource

MLR metadata for learning resources

5 Specification of data elements

5.1 General

In this clause, data elements of OLF metadata shall be as specified in the MLR format according to ISO/IEC 19788-1:2011/Amd 1:2014, Clause 6.

5.2 Data element specification attributes

A data element specification consists of an identifier (for the data element specification) and a (defined) list of data element attributes with rules for the values of those attributes.

Each data element specification shall have the following attributes:

— identifier (data element specification identifier);

— property name (data element name);

— definition (data element definition);

— linguistic indicator (data element linguistic indicator);

— domain (data element domain);

— codomain (data element codomain);

— content value rules;

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