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

Part 1:
Framework

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Contents

Page

Foreword ..... **iv**

Introduction ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Abbreviated terms **2**

5 Principles governing the development of ISO/IEC 23127 ..... **2**
5.1 A multipart standard 2
5.2 Development driven by stakeholders' requirements and teaching and learning needs 3
5.3 Data Privacy 3
5.4 Multilingual equivalencies and multicultural requirement support 3
5.5 User extensions 3

6 Specification of Data elements **4**
6.1 Introduction 4
6.2 Data element specification attributes 4
6.3 Data element specification: Matrix template 5
6.4 A "Data element specification" example 5

7 OLF data elements **6**
7.1 Data element 6

8 Specification of OLF classes **6**
8.1 Definition of an information class 6
8.2 Attributes of an Information Class 6
8.3 Information Class specification: Matrix template 6

9 Generic OLF classes **6**
9.1 IC0000 OLF information 7
9.2 IC0100 personal information 7
9.3 IC0200 occupational history information 8
9.4 IC0300 facilitation offer information 8
9.5 IC0400 performance history information 8
9.6 IC0500 academic ability 8
9.7 IC0600 OLF network information 9

10 Predefined rule sets **9**

11 Specification of application profiles **9**
11.1 Introduction 9
11.2 Application profile attributes 9
11.3 DES's constraints matrix 9
11.4 An "Application Profile" example 9

Annex A (informative) **OLF information for online facilitation and training** **11**

Bibliography **13**

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ISO/IEC DIS 23127-1
https://standards.iteh.ai/catalog/standards/sist/3000e007e-a960-44a2-8210-77d0f4af84b7/iso-iec-dis-23127-1

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Foreword

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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).

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ISO/IEC 23127 consists of the following parts, under the general title Information technology — Learning, education and training —Metadata for facilitator of online learning:

— Part 1: Framework

The following parts are under preparation:

— Part 2: Personal Information

— Part 3: Occupational History Information

— Part 4: Facilitation Offer Information

— Part 5: Performance History Information

— Part 6: Academic Ability

— Part 7: OLF network information

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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 f2f 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 OLF may 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 standard answers the question on how to describe OLF in various IT systems, and also how to exchange this information across different platforms. The purpose of this standard is to create a metadata structure of OLF information to ensure that education IT systems can store and access this information as needed.

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

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This standard can be used in different scenarios as the following: (1) developing an OLF information model for an 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 offered and their expertise.

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

Part 1: Framework

1 Scope

The purpose of ISO/IEC 23127 is to offer 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.

In this standard, a generic information model of Online Learning Facilitator (OLF) is given 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 specified by this standard allows the linguistic diversity of OLF information attributes and offers a flexible metadata schema to describe them.

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As for the metadata with privacy, it is suggested to use Application Profile in ISO/IEC 19788-1 to tag data elements concerning privacy and define them with conditions. Although this standard provides suggestions on how to designate metadata elements that require privacy protection, it does not provide detailed methods or techniques with regard to how to implement privacy protection measures. OLF information privacy protection methods and techniques, such as Privacy-by-Design, can be selected and applied as needed by implementers.

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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, *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 19788-1:2011, and the following apply.

3.1
online learning facilitator
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.

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3.2
online learning facilitator information
recorded information associated with individual online learning facilitator 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

The following symbols and abbreviated terms are used in this Standard.

Abbreviation	Term
DES	Data Element Specification
HR	Human Resource
IT	Information Technology
LMS	Learning Management system
MLR	Metadata for Learning Resources
MOOC	Massive Open Online Course
OLF	Online Learning Facilitator

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5 Principles governing the development of ISO/IEC 23127

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5.1 A multipart standard

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

Part 1 (Framework) of the ISO/IEC 23127 presents how Editors of Parts of ISO/IEC 23127 shall specify their data elements and provides a concept model to outline a general framework for online facilitators' information model. This structure is used to assist with the addition of new Parts of ISO/IEC 23127, and to maximize re-use of existing Online Facilitators' Information Model data elements already specified in existing Part(s) of ISO/IEC 23127.

The following are parts which are envisioned to specify data elements in the OLF's information model:

— ISO/IEC 23127-2: Personal Information

— ISO/IEC 23127-3: Occupational History Information

— ISO/IEC 23127-4: Facilitation Offer Information

— ISO/IEC 23127-5: Performance History Information

— ISO/IEC 23127-6: Academic Ability

— ISO/IEC 23127-7: OLF Network Information

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5.2 Development driven by stakeholders' requirements and teaching and learning needs

This standard develops a metadata structure in order to meet the requirements of online facilitation and related stakeholders (see Annex A.2 for more detail). It creates an information model to define and describe anyone who offers facilitation / tutoring services online. In addition, it provides:

- educational administrators with an available reference model as well as standardized administrative data;
- educational researchers with a standardized template to collect data;
- standard developers with a basis for other educational technology standards and specifications involving facilitators; and,
- learning software developers with guidance when using the OLF information model.

5.3 Data Privacy

This standard only specifies metadata for OLF and the data structures. Data privacy constraints are therefore to be described in implementers' optional application profiles of this standard (see Clause 11). This standard does not provide detailed information on data privacy protection techniques. OLF's information regarding privacy can be handled and protected with any methods and technique as needed by implementers.

5.4 Multilingual equivalencies and multicultural requirement support

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ISO/IEC 23127 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, ISO/IEC 23127 must support both global interoperability and local specificity, such as:

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- natural and special languages and associated multilingual requirements;
- jurisdictional, legal, regulatory, and geopolitical constraints as mandated by relevant jurisdictional domain(s).

This standard does not provide detailed information regarding multilingual equivalencies or multicultural requirement support. It is anticipated that some or all of these requirements will be addressed in future editions of ISO/IEC 23127, or in companion standards or technical reports.

5.5 User extensions

Standards capture the common user requirements. In the implementation of one (or more) Part(s) of ISO/IEC 23127, however, it is possible that a user may have additional or more precise requirements to be implemented. As shown in Figure 1, only parts of OLF information in online platforms will be defined in this standard. Users of this standard are able to extend customized information by implementing one or more parts (or combinations of parts).

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