Guidelines for Issuing Micro-credentials Digitally 1.1

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1. Scope of guideline

The following guidelines apply to the digital issuance of micro-credentials (MCs) with Open Badges 2.0.

2. Purpose of the guideline

This guideline for issuing micro-credentials digitally defines the correspondence between the descriptors of a micro-credential and the metadata of its digital issuing means. The guideline will facilitate a uniform description of digital certificates and facilitate the comparison, selection, and use of micro-credentials.

3. Definition of terms

3.1 Micro-credential

Micro-credentials have two aspects: the educational program itself and the proof of educational history in the educational program.

A micro-credential [1]:

(1) Is a record of focused learning achievement verifying what the learner knows, understands, or can do.

(2) Includes assessment based on clearly defined standards and is awarded by a trusted provider.

(3) Has standalone value and may also contribute to or complement other micro-credentials or macrocredentials, including through recognition of prior learning.

(4) Meets the standards required by relevant quality assurance.

3.2 Digital Badges

Digital Badges are digital proof of qualifications, skills, micro-credentials, awards, and participation. It is also a technology for digital certification.

3.3 Open Badges

Open Badges is a digital badge and a technical specification for digital certificates defined by the 1EdTech Consortium [2].

4. Micro-credential reference framework

The Micro-credential Joint Working Group [3] developed the Micro-credential Reference Framework [4] after studying the compatibility of the micro-credential frameworks of various countries with the UNESCO and OECD research studies. The micro-credential descriptors presented therein were used to develop these guidelines.

5. Correspondence between micro-credential descriptors and digital badge metadata

The following is the correspondence between the descriptors of micro-credentials and the metadata of Open Badges, one of the standards for digital badges.

Micro-credential Framework		Open Badges 2.0	
Descriptor	Mandatory	Name of Metadata	Name of Class
	/ Option		
Identification of the learner	Mandatory	Recipient	Assertion
			IdentfyObject
Date of issuing	Mandatory	issuedOn	Assertion
Title of the micro-credential	Mandatory	name	BadgeClass
Awarding body	Mandatory	issuer	Profile
Country/Region of the issuer	Option	issuer	Profile
Content/ Description	Mandatory	description	BadgeClass
Learning outcomes	Mandatory	criteria	BadgeClass
Language	Option	(All the same below)	(All the same below)
Form of participation	Mandatory		
Learner Effort	Mandatory		
Type of assessment	Mandatory		
Type of quality assurance	Mandatory		
Level	Option		
Certification	Option		
Credit/ Other Recognition	Mandatory		
Prerequisites needed to enroll	Option		
Stackability	Option		

Table 1. Correspondence between Micro-credential descriptors and Digital Badge metadata

6. Explanation

(1) Relationship between micro-credentials and digital badges

While micro-credentials are a new system for education in each country or region, digital badges such as Open Badges are technical specifications (standards) for digital certificates established by international information technology organizations and are used for a wide range of digital certificates, not limited to education.

To use a metaphor, if an MC is a letter, then a digital badge is a registered letter (envelope or system). The role of the digital badge, which is registered mail, is to ensure that the letter is delivered to the recipient. An MC is a letter written under the educational system of each country. If the MC as a letter is incomplete, the digital badge as a registered mail conveys the incomplete MC to the recipient as it is.

Trust in the MC consists of two elements: trust that the quality of the MC's education is guaranteed, and trust that the MC sent by the learner is genuine and not a forgery. The former is achieved through the quality assurance framework of the MC, while the latter is achieved through information technology such as digital badges.

(2) When inserting micro-credential descriptors into the metadata of a digital badge, multiple microcredential descriptors should be included in a single metadata item called a criterion. To clearly identify these multiple descriptors, the descriptor name must be added to the beginning of the description, as shown below.

Learning outcomes : Language : Form of participation : Learner Effort : Type of assessment : Type of quality assurance : Level : Certification : Credit/ Other Recognition : Prerequisites needed to enroll : Stackability :

(3) The badge image on the digital badge representing the micro-credential should include the words "Micro-credential" in English.

(4) If the digital proof of the micro-credential conforms to this guideline, it should be noted in the

descriptor of the micro-credential, "Certification".

(5) Information indicating that the issuing authority is a trustworthy authority, its URI, etc., may be included in the Profile indicating the authority information.

(6) "Content/ Description" is a very brief description, and Uniform Resource Identifier (URI) cannot be used. In addition, the descriptor "Content/ Description" is not used in some micro-credential framework in Europe and Asia, and this information may be left out in international distribution of Micro-credentials.

References

 UNESCO, 2022, "Towards a common definition of micro-credentials." UNESCO, Towards a common definition of micro-credentials, https://unesdoc.unesco.org/ark:/48223/pf0000381668, Reference date 2023-2-7

[2] 1EdTech Consortium, Open Badges, <u>https://www.1edtech.org/standards/open-badges</u>, Reference date 2025-3-10

[3] Micro-credential Joint working group, https://micro-credential-jwg.org/, Reference date 2024-4-29

[4] Micro-credential Joint working group, Micro-credential reference framework, Reference date 2024-4-29