CEN

WORKSHOP

AGREEMENT

CWA 15455

November 2005

ICS 03.180; 35.240.99

English version

A European Model for Learner Competencies

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties, the constitution of which is indicated in the foreword of this Workshop Agreement.

The formal process followed by the Workshop in the development of this Workshop Agreement has been endorsed by the National Members of CEN but neither the National Members of CEN nor the CEN Management Centre can be held accountable for the technical content of this CEN Workshop Agreement or possible conflicts with standards or legislation.

This CEN Workshop Agreement can in no way be held as being an official standard developed by CEN and its Members.

This CEN Workshop Agreement is publicly available as a reference document from the CEN Members National Standard Bodies.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36   B-1050 Brussels

Contents

Foreword

This CEN Workshop Agreement (CWA) provides a European data model and guidelines for expressing, referencing and capturing measurable characteristics of simple and complex competencies.

The CWA also includes case studies for the description of existing maps and taxonomies of competencies and presents possible mappings of the "European Framework for Transparency of Qualifications" elements to the resulting data model.

The development of models for European Competencies as part of future international standards is urgently required In order to avoid that European education providers will have to develop their own line of services, platforms and courseware concepts in contradiction to International Standards to cope with European privacy or security demands.

The decision for this work item was taken by the Learning Technologies Workshop at the 15th meeting on July 07/08, 2003. Work on the CWA started at the 17th meeting in January 2004 by its editor, Ms. Cleo Sgouropoulou of the National Technical University of Athens, Greece.

The document has been developed through the collaboration of a number of contributing partners, representing a wide mix of interests, from universities to commercial companies representatives. The names of the individuals and their affiliations that have expressed support for this CWA is available from the CEN/ISSS Secretariat.

The final review/endorsement round for this CWA was started on 2005-06-16/17 and closed on 2005-07-15.

The final text of this CWA was submitted to CEN for approval and publication in 2005-09-06.

This CEN Workshop Agreement is publicly available as a reference document from the National Members of CEN: AENOR, AFNOR, BSI, CSNI, CYS, DIN, DS, ELOT, EVS, IBN, IPQ, IST, LVS, LST, MSA, MSZT, NEN, NSAI, ON, PKN, SEE, SIS, SIST, SFS, SN, SNV, SUTN and UNI.

Comments or suggestions from the users of the CEN Workshop Agreement are welcome and should be addressed to the CEN Management Centre.

Introduction

Every organisation or enterprise engaged in the fields of formal education, technical, vocational or corporate training, staffing or workforce development implements or uses competency definitions and structures.

Moreover, several entities have already undertaken the design and implementation of digital repositories in order to support the storage, search, retrieval and management of such definitions, thus dealing with issues ranging from learning resource discovery to accreditation and skill gap analysis. However, these systems cannot exchange information in an effective way, as they use different information models or assumptions.

The development and usage of a universal competency definition model to allow the creation, exchange and reuse of competency definitions among interoperable systems is imperative for the support of intra and inter-organisational / entrepreneurial activities. At the same time, competency definitions constitute fundamental entities for reference by other widely adopted Learning Technology standards or specifications. Apart from the definition, other competency data need to be examined and accommodated in other information models, as appropriate, in order to provide coverage to the entire competency problem space.

Within a European context, the single framework for the transparency of qualifications and competencies (Europass) adopted by the European Parliament and the Council of the European Union defines new information models for the description of skills, academic and vocational qualifications, experience of trans-national mobility, thus setting further referencing requirements to well-defined, persistent competency definitions.

This CWA deals with the elaboration of an application profile of the IMS Reusable Definition of Competency or Educational Objective (RDCEO) specification in order to facilitate the creation of competency repositories within a European context, provides guidelines and recommendations for the use and extension of complementary specifications for expressing competency data and discusses other relevant standardisation activities.

1 Scope

The scope of this work is the development of data models, protocols and bindings that are capable of dealing with specific European requirements and concerns for expressing competencies, which guarantee the secure handling of personal information in open and distributed learning environments.

The information relative to the general learner profiles is handled separately in the CWA learner profiles.

This work shall serve as input to ISO/IEC JTC 1 SC 36, its Working Group 3 "Participant Information" and WG 4 "Management and Delivery".

2 References

2.1 Normative references

This CEN Workshop Agreement incorporates by dated or undated reference, provisions from other publications.

These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications do not apply. However, parties to agreements based on this CWA are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies.

1. Reusable Definition of Competency or Educational Objective
    http://imsglobal.org/competencies/index.cfm

2. IEEE P1484.20/D01 – Draft Standard for Information Technology – Learning Technology – Competency Definitions
    http://ltsc.ieee.org/wg20/files/IEEE_RDCEO_Spec.pdf

3. IEEE 1484.12.1-2002, Final Draft Standard for Learning Object Metadata
    http://ltsc.ieee.org/wg12/files/LOM_1484_12_1_v1_Final_Draft.pdf

2.2 General references

1. CEDEFOP: European Centre for the Development of Vocational Training
    http://www.cedefop.gr

2. The Technical Working Group on transparency of vocational qualifications
    http://www2.trainingvillage.gr/etv/transparency/index.asp

3. CEN/ISSS ICT-Skills Workshop
    http://www.cenorm.be/cenorm/businessdomains/businessdomains/isss/activity/wsict-skills.asp

4. Decision No 2241/2004/EC on a single Community framework for the transparency of qualifications and competences (Europass)
    http://www.acc.eu.org/uploads/31.12.200401.pdf

5. Common European Framework (CEF) of Reference for Languages
    http://culture2.coe.int/portfolio/inc.asp?L=E&M=$t/208-1-0-1/main_pages/levels.html

6. Council of Europe – European Language Portfolio – Self-Assessment Grid
http://culture2.coe.int/portfolio/

7. Mapping Personal Development Records to IMS LIP to support Lifelong Learning
(JISC, CETIS and the Centre for Recording Achievement)
http://www.jisk.ac.uk

8. Skills Profiling Web Service (SPWS) Project
http://www.jisc.ac.uk/index.cfm?name=deletspws

9. Judicial Studies Board – UK
http://www.jsboard.co.uk

10. HR-XML Consortium – Competencies Schema
http://ns.hr-xml.org/2_3/HR-XML-2_3/CPO/Competencies.html

11. ISO/IEC JTC1 SC36 N1037 - Conceptual Reference Model for Competencies and
Related Objects
http://jtc1sc36.org/

3   Terms, definitions and abbreviations

3.1   Terms and definitions

Reusable Definition of Competency or Educational Objective: This specification
provides a means to create common understandings of competencies that appear as part
of a learning or career plan, as learning pre-requisites, or as learning outcomes. The
information model in this specification can be used to exchange these definitions between
learning systems, human resource systems, learning content, competency or skills
repositories, and other relevant systems. RDCEO provides unique references to
descriptions of competencies or educational objectives for inclusion in other information
models.

Primitive competencies: Basic or core competencies that are defined in terms of
descriptive "can do/does" statements and cannot be divided into simpler competencies.

Complex competencies: Higher level competencies that contain or are defined in terms
of other primitive or complex competencies.

3.2   Abbreviations

RDCEO   Reusable Definition of Competency or Educational Objective

CWA   CEN Workshop Agreement

IEEE   Institute of Electrical and Electronics Engineers, Inc.

LOM   Learning Object Metadata

LT   Learning Technology

IMS   IMS Global Learning Consortium, Inc.

LIP   Learner Information Package

CEF   Common European Framework

JISC   Joint Information Systems Committee, UK

CETIS   Centre for Educational Technology Interoperability Standards, UK