

SINGAPORE STANDARD

# **Specification for eLearning framework**

– Part 8 : Guidelines on common competencies  
for eLearning professionals



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Standards  
SPRING Singapore  
1 Fusionopolis Walk,  
#01-02 South Tower, Solaris  
Singapore 138628  
Email : [standards@spring.gov.sg](mailto:standards@spring.gov.sg)

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The Information Technology Standards Committee appointed by the Standards Council consists of the following members:

	<b>Name</b>	<b>Capacity</b>
<b>Chairman</b>	: Mr Robert Chew	<i>Member, Standards Council</i>
<b>Secretaries</b>	: Ms Ho Buaey Qui Ms Thay Yean Lan	<i>Infocomm Development Authority of Singapore</i> <i>Infocomm Development Authority of Singapore</i>
<b>Members</b>	: Assoc Prof Chi Chi-Hung Assoc Prof Clement Chia Ms Susan Chong Dr Derek Kiong Mr Raymond Lee Mr Lim Chin Hu Mr Lim Sah Soon  Mr Harish Pillay Dr Susanto Rahardja Mr Kenny Tan	<i>National University of Singapore</i> <i>Nanyang Technological University</i> <i>SPRING Singapore</i> <i>Institute of Systems Science</i> <i>Infocomm Development Authority of Singapore</i> <i>Singapore infocomm Technology Federation</i> <i>Singapore Chinese Chamber of Commerce and Industry</i> <i>Singapore Computer Society</i> <i>Institute for Infocomm Research</i> <i>Information Technology Management Association</i>
<b>Co-opted Member</b>	: Mr Wilson Tan	<i>Individual Capacity</i>

The Technical Committee on Learning Standards appointed by the Information Technology Standards Committee and responsible for the preparation of this standard consists of experts from the following organisations:

	<b>Name</b>	<b>Capacity</b>
<b>Chairman</b>	: Mr Lim Kin Chew	<i>E-Learning Competency Centre</i>
<b>Members</b>	: Mr Steven Chan Mr Chua Chet Shiu Mr Goh Khee Teck Mr Goh Wee Sen Mr Budy Harnata Miss Julie He Ms Kwek Siew Wee Mr Lau Choo Leng Simon Ms Lau Sze Sze Mr Li Ying Hao Ms Lilian Lim Ms Ong Peik Ying Mr Iz Ong Sey Beng	<i>Ednovation Pte Ltd</i> <i>CrimsonLogic Pte Ltd</i> <i>E-Learning Competency Centre</i> <i>Nanyang Technological University</i> <i>University 21 Global</i> <i>E-Learning Competency Centre</i> <i>Nanyang Polytechnic</i> <i>E-Learning Competency Centre</i> <i>E-Learning Competency Centre</i> <i>Ednovation Pte Ltd</i> <i>National University of Singapore</i> <i>E-Learning Competency Centre</i> <i>Ngee Ann Polytechnic</i>

<b>Members</b>	:	Mr Son Wei Meng	<i>Nanyang Polytechnic</i>
		Mr Tan Gek Hua	<i>Temasek Polytechnic</i>
		Ms Teng Geok Lin	<i>Ngee Ann Polytechnic</i>

The Common Competencies Working Group appointed by the Technical Committee to assist in the preparation of this standard comprises the following experts who contributed in their *individual capacity*:

	<b>Name</b>
<b>Convenor</b>	: Mr Lim Kin Chew
<b>Members</b>	: Mr Budy Harnata
	Mr Chua Chet Shiu
	Miss Julie He
	Mr Iz Ong Sey Beng

The experts of the Working Group are nominated/recommended by the following organisations:

*CrimsonLogic Pte Ltd*  
*E-Learning Competency Centre*  
*Ngee Ann Polytechnic*  
*University 21 Global*

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## **Foreword**

This Singapore Standard was prepared by the Learning Standards Technical Committee (LSTC) under the purview of the IT Standards Committee. The LSTC is responsible for tracking, developing and promoting specification on learning in Singapore.

This is Part 8 of the Singapore eLearning Framework (SeLF). Part 8 focuses on defining the necessary competencies needed to ensure the effective operation in an eLearning suite.

The objectives of the standard are as follows:

- To classify the competencies required to perform eLearning tasks like instructional design, e-tutoring, project management, technical programming, etc.
- To provide an information model so that information on competencies and/or objectives can be used in other back-end systems like the human resource system, financial system and learning content management

In preparing this standard, reference was made to prevailing international best practices. The LSTC has had the privilege of working with practitioners from various companies and institutions of higher learning.

In preparing this standard, reference was also made to the following publications:

- 1) IMS Reusable Definition of Competency or Educational Objective - Information Model, [http://www.imsglobal.org/competencies/rdceov1p0/imsrdceo\\_infov1p0.html](http://www.imsglobal.org/competencies/rdceov1p0/imsrdceo_infov1p0.html)
- 2) IMS Reusable Definition of Competency or Educational Objective - XML Binding, [http://www.imsglobal.org/competencies/rdceov1p0/imsrdceo\\_bindv1p0.html](http://www.imsglobal.org/competencies/rdceov1p0/imsrdceo_bindv1p0.html)
- 3) IMS Reusable Definition of Competency or Educational Objective - Best Practice and Implementation Guide  
[http://www.imsglobal.org/competencies/rdceov1p0/imsrdceo\\_bestv1p0.html](http://www.imsglobal.org/competencies/rdceov1p0/imsrdceo_bestv1p0.html)

This standard is expected to gain the widespread acceptance of the practitioners in the eLearning industry in Singapore. However, as other specifications are still evolving, this standard will be reviewed and revised. The LTSC will be responsible for incorporating new elements or features in this standard on common competencies for eLearning professionals.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. SPRING Singapore shall not be held responsible for identifying any or all of such patent rights.

### **NOTE**

1. *Singapore Standards are subject to periodic review to keep abreast of technological changes and new technical developments. The changes in Singapore Standards are documented through the issue of either amendments or revisions.*
2. *Compliance with a Singapore Standard does not exempt users from legal obligations.*

## **Specification for eLearning framework – Part 8 : Guidelines on common competencies for eLearning professionals**

### **1 General**

#### **1.1 Overview**

This standard covers the common competencies expected from eLearning professionals to perform tasks like project management, instructional design, e-tutoring, technical development, etc. The purpose is not to define the roles played by each eLearning professional but to create a common understanding of the competencies that are required to perform eLearning tasks. Therefore it is important to understand that the eLearning competencies defined in this standard are only task-based and not role-based. For example, the role of an eLearning manager varies from company to company and some may be expected to perform multiple tasks.

This standard also covers a universally acceptable information model to allow the creation, exchange and reuse of competency definition in applications such as Learning Management Systems, Human Resource Systems, Training Management Systems, competency or skills repositories, learning content, etc. This standard is useful because there are currently many definitions of the terms like "Learning Objective", "Competency" and "Skill", but there is little agreement among the professionals on how these definitions can be made into a reusable format. The information model enables interoperability among different systems that deal with competency information by providing a means for them to refer to common definitions with common meanings.

#### **1.2 Scope**

This standard defines a set of common competencies that are required to perform each eLearning task. It also recommends the use of the information model that is defined in IMS Reusable Definition of Competency or Educational Objective (RDCEOO) specification or IEEE Competency definition standard. The information model specifies the mandatory and optional data elements that constitute a competency definition as used in a Learning Management System, or referred to in a competency profile. This information model is intended to satisfy the following objectives:

- Provide a standardised data model for reusable competency definition records that can be exchanged or reused in one or more compatible systems;
- Reconcile various existing and emerging data models into a widely acceptable model;
- Provide a standardised way to identify the type and precision of a competency definition;
- Provide a unique identifier as the means to unambiguously refer to usable competency definition regardless of the setting in which this competency definition is stored, found, retrieved, or used, e.g., metadata that describe learning content may contain a reference to one or more competency definition records that describe the learning objectives for the content;
- Provide a standardised data model for additional information about a competency definition, such as a title, description and source, compatible with other emerging learning asset metadata guidelines;
- Provide a controlled vocabulary to express how competency definitions are semantically related.



This standard does not cover:

- The roles of different eLearning professionals;
- Quality and accuracy of the data used in the information model. The data used in information model examples are only recommendations to use the information model innovatively within the binding or format of the information model;
- A specific competency map or fixed taxonomy of competencies;
- How the relationships between competencies are stored in a database or learning management system;
- Certification data models. However, certification records can refer to competency definitions, e.g. an accredited authority may grant certificates that acknowledge that an individual meets the requirements for a particular competency;
- Individual competency records, as would be found in the competency profiles of individuals or groups. However, such records can include references to specific competency definitions, e.g. a competency profile for an individual may include a collection of certificates which in turn refers to competency definitions, as well as a collection of references to the definitions for competencies to be acquired.

### **1.3 Target audience**

The following is a list of the target users of this standard:

- a) Education technologist;
- b) Courseware developer;
- c) Learning assessment system developer;
- d) Instructional designer;
- e) System integrator;
- f) eLearning specialist;
- g) eLearning programmer;
- h) Learning management system specialist;
- i) Knowledge management system specialist;
- j) Education service provider;
- k) eBook developer;
- l) Cataloguer.

This list is not an exhaustive one. It gives an indication of the type of people who will be interested in using this standard.

### **1.4 Relationship of this standard to other documents**

The standard is related to several other IMS specifications, IEEE standards and SS 496, both complete and in-progress. It is intended to be consistent with these other initiatives wherever possible, in order to reduce redundancy and confusion between specifications. The related documents are:

- SS 496 Specification for eLearning framework
  - Part 2 : Learning resource identification – to support the metadata entities to be used in the context of the Enterprise objects.
  - Part 3 : Learning content packaging – to support packaging of multiple IMS Enterprise XML instances.