P1484.13.1

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1.1 Project Number: P1484.13.1
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for Learning Technology - Conceptual Model for Resource Aggregation for Learning, Education, and Training


3.1 Working Group: Resource Aggregation Models for Learning Education and Training (C/LT/RMLTWG13)
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3.2 Sponsoring Society and Committee: IEEE Computer Society/Learning Technology (C/LT)
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4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 04/2006
4.3 Projected Completion Date for Submittal to RevCom: 04/2007

5.1 Approximate number of people expected to be actively involved in the development of this project: 20

5.2 Scope: This Standard defines a conceptual model for interpreting externalized representations of digital aggregations of resources for learning, education, and training. The conceptual model defines a set of concepts and the relationships among them and is expressed as a formal ontology. Internal compositions and uses of digital resources are not specified nor are processing methods for resource aggregations.

Changes in scope: This Standard defines a reference conceptual model for externalized nomenclature representations and of a conceptual model for digital aggregates of resources for learning, education, and training applications. This Standard facilitates interoperability between sets of concepts and the relationships among externalized representations and of digital resource aggregates as defined in their formal properties. Particular internal compositions and behaviors of digital resources are not specified nor are any processing particular means or methods for processing resource aggregates.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: Currently, resource aggregations used in learning, education, and training are defined in a variety of standards and specifications. The conceptual model defined in this Standard facilitates interoperability by providing an ontology that can be used to represent a variety of resource aggregation formats. Interoperability may be achieved by the creation of crosswalks among the various aggregation standards and specifications. In addition, this Standard may serve as a common reference for the development and evolution of standards and specifications for resource aggregations.

Changes in purpose: Currently, resource aggregations used in learning, education, and training are represented in a variety of formats and are defined in a variety of specifications. Examining the commonalities and differences among these resource aggregations reveals that these formats and specifications sometimes lack a documented nomenclature and underlying conceptual model. Without the a common nomenclature and conceptual model, the interpretation of these formats and
aggregations and may assist the development of profiles that maximize interoperability between the various aggregation formats.

specifications, it is difficult to create applications that can interoperate. This Standard facilitates interoperability by providing a nomenclature ontology and conceptual model that can be used to represent a variety of resource aggregation formats and specifications. Interoperability may be achieved by facilitating the creation of crosswalks among the various aggregation formats standards and specifications. In addition, this Standard may serve as a common reference for the development and evolution of standards and specifications for resource aggregations and may assist the development of profiles that maximize interoperability between the various aggregation formats.

5.5 Need for the Project: Resource aggregation is the process of aggregating resources so that the resulting resource aggregate can be used in one or more applications, such as delivery to users, transmission, and storage.

A physical analogy for resource aggregate is a music CD. The CD can be viewed as a container for resources (the digital files that encode the songs) and metadata (titles of the songs, length of the songs, artists etc.) The combination of the medium, resources and metadata is an example of a resource aggregate. In the digital world, resources are generally shipped around with XML wrappers and often contain more than just resources and descriptive metadata. The resources may just be references to resources and the aggregate may contain processing instructions, rights management information, information about the relation among resources etc. Different communities, such as the multimedia community, library community, technical documentation community, and the learning technology community have created their own specifications and standards for resource aggregates and wish to interchange resource aggregates between the communities and systems.

The Learning Technology Standards Committee, Resource Aggregation Models for Learning Education and Training (LTSC RAMLET) Working Group is undertaking a project to produce an IEEE standard that will define a reference model that includes a nomenclature and a conceptual model for digital aggregates of resources for learning, education, and training applications. The standard will facilitate interoperability by enabling the interpretation of externalized representations of resource aggregates and their properties. Particular internal compositions and behaviors of resources will not be specified nor will be particular means or methods for processing resource aggregates.

The stakeholders for the project are:
Designers, Developers, and Vendors of Learning Management Systems
Designers, Developers and Vendors of Content Management Systems and Content Repositories
Content Developers, Publishers and Aggregators
Bodies specifying resource aggregation standards
Content consumers

5.6 Stakeholders for the Standard: Designers, Developers, and Vendors of Learning Management Systems
Designers, Developers and Vendors of Content Management Systems and Content Repositories
Content Developers, Publishers and Aggregators
Bodies specifying resource aggregation standards
Content consumers

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**Intellectual Property**

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No
6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: No
7.2 Joint Development
Is it the intent to develop this document jointly with another organization?: No

8.1 Additional Explanatory Notes (Item Number and Explanation): Title: The working group agrees that conceptual model more accurately describes the standard than reference model.
Scope: During the drafting process the terminology used in the Standard has changed and the Scope has been changed accordingly.
Purpose: During the drafting process the terminology used in the Standard has changed and the Purpose has been changed accordingly.