MedBiquitous Competencies Working Group Charter

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Mission

The mission of the MedBiquitous Competencies Working Group is to develop XML standards and supporting guidelines for competency data enabling educational resources and activities to be tied to a competency framework.

Goal

Having a technology standard for representing competency data would enable content developers to tie educational activities to a competency framework. This in turn enables learners to track their accomplishments against a list of competencies relevant to their profession and specialty. A competency standard also enables educators to see how their curriculum fits into a competency framework and better manage their curriculum and its development.

Context

MedBiquitous develops information technology standards for healthcare education and competence assessment. Through working groups and a standards committee, MedBiquitous members are creating a technology blueprint for healthcare education and competence assessment. Based on XML and Web services standards, this blueprint will weave together the many activities, organizations, and resources that support the ongoing education, performance, and assessment of healthcare professionals.

Defining competencies is a first step towards increasing the quality of health care delivery. As the Accreditation Council for Graduate Medical Education (ACGME) Outcome Project and the Scottish Doctor Project demonstrate, health professions educators are increasingly identifying the outcomes expected of the educational process and the competencies expected of the practicing clinician. Educators are defining the specific knowledge, skills, and attitudes necessary to achieve competency in a particular area, ranging from general competencies such as communication skills to specific clinical competencies identified for a medical specialty.

These trends are evident across the continuum of health professions education. A series of learning outcomes and objectives drive the curriculum for medical schools, and schools must demonstrate what parts of the curriculum address specific outcomes and objectives. The ACGME Core Competencies provides a broad framework for education within residency programs, and program directors must demonstrate that they are incorporating these competencies into the residency curriculum. Similarly, specialty boards and societies are defining specialty-specific competencies that drive assessment components of the certification process. Accordingly, specialty societies are providing professional development activities to help clinicians achieve these competencies. Similar requirements exist for health professions outside of medicine.

Currently few software systems allow educators to link curricular activities and resources to a separate competency framework. Because competencies are often defined by assessment organizations, such as accrediting bodies, certifying boards, and licensing boards, competency lists often exist separate from the education designed to support achievement of the competencies. Often the competencies exist as descriptive documents with no electronic representation that enables incorporation into educator systems. A standard format for competency data would enable the exchange of competency lists among assessment organizations and educating organizations as well as the incorporation of competency lists into curriculum management systems, allowing developers to link curricular activities and resources to competency frameworks. In addition, a competency standard would allow for the development of portfolio systems allowing a learner to view their completed activities against a list of required competencies.

Work is underway within the e-learning community to address these needs. The Institute of Electrical and Electronics Engineers (IEEE) Learning Technology Standards Committee (LTSC) has convened a Competency Data Standards Working group (http://ieeeltsc.org/wg20Comp/). The group is working to define a data model for describing, referencing, and exchanging competency definitions, primarily in the context of online and distributed learning. Their work is based on the IMS Global Learning Consortium (http://www.imsglobal.org) specification for Reusable Definition of Competency or Educational Objective (RDCEO).

To take advantage of the industry work underway, MedBiquitous will work with IEEE LTSC to develop standards for competency data. With these standards in place, organizations will be able to share and use competency lists, thereby connecting learning to existing competency frameworks and helping learners to see their educational accomplishments within the context of a competency framework. Standards would also enable the delivery of learning content based on identified gaps in competency.

Scope

The working group will focus on developing requirements for representing health professions competencies and working with the IEEE LTSC Competency Working group to ensure that these requirements are incorporated into the competency-related standards being developed by the IEEE. The group may supplement these activities by specifying

requirements for Web services to enable the exchange of competency data. Whenever possible, the group will leverage useful specifications developed by other organizations. The MedBiquitous Technical Steering Committee will offer guidance and technical support for approaches requiring Web services descriptions.

The specifications and services created by this working group will likely serve as foundation pieces for other specifications and Web services designed by MedBiquitous and will be architected to allow for other parts of the MedBiquitous blueprint for healthcare education and competence assessment.

Currently there is confusion around the nature of competencies and their structure. Some groups take a general, high level approach while others have a more specific and structured approach. The working group may develop guidelines to provide guidance to healthcare educators wishing to develop competencies, or the working group may limit the scope of what it considers a competency in developing technical specifications. It is expected that the working group will further refine this scope outlined in this charter to best meet their goals.

Work Plan
The Working Group will meet via teleconference on most occasions. Face-to-face working group meetings or barn raisings may be convened upon occasion. Working Group members or staff will perform much of the group's work independently with member comments submitted to a discussion list.

References
The IEEE LTSC website
http://www.ieeeltsc.org

IMS Global Learning Consortium
http://www.imsglobal.org