

MAPPING AND ACCESSING COMPETENCIES AND LEARNING OBJECTS

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Introduction: Education for health care professionals is increasingly competency-based. In addition, there is growing use of e-learning, which can be linked to competencies via emerging technology standards. We have developed a framework and prototype system to facilitate access to competencies and e-learning content in two medical domains based on standards developed by the MedBiquitous Consortium (www.medbiq.org). We have demonstrated that such standards can be successfully implemented and now seek to evaluate them and expand the system to other domains.

Details: We aim to develop a standards-based system for discovering content based on an identified gap in competence. Competencies are linked to learning objects that are described by SCORM and Healthcare Learning Object Metadata (LOM). After developing a framework and XML schema, we implemented our approach in a system called MERG (<http://dmicewin.ohsu.edu/merg/index.py>) whose interface is shown below. MERG allows metadata records, competencies, or both to be retrieved by a search. Once a record or competency is chosen for display, the user can navigate to others linked by competency associations. We began by implementing competency-based learning standards in the medical informatics domain, based on the 10x10 course developed by Oregon Health & Science University and the American Medical Informatics Association. This was followed by the same process applied to the women's health domain, based on competencies from the Association of Professors of Gynecology and Obstetrics and content from the Center for Collaborative and Interactive Technologies at Baylor College of Medicine. Our future plans include the addition of more competencies and content to our collection and also evaluation of our approach. The ultimate vision for our work is that health care professionals will identify competencies where they require learning and be able to query standards-based systems to identify content related to those competencies.

The image displays two screenshots of the MERG (Medical Education Resources Gateway) interface. Both screenshots feature the MERG logo at the top center and the title "Medical Education Resources Gateway".

The left screenshot shows the search interface. It includes a "Display:" section with radio buttons for "Learning Resources", "Competencies", and "Both". Below this is a "Containing Text:" field with the value "electronic". There are also fields for "By Publisher:" and "By Author:" with a "Search" button. At the bottom, there are two links: "Using Medical Education Resources Gateway" and "About Learning Resources and Competencies".

The right screenshot shows the results for a Learning Object. It includes a "LEARNING OBJECT" section with a link "Definitions and Key Attributes of the EHR". Below this is a "METADATA" section with a table of metadata:

Definitions and Key Attributes of the EHR	
Title	Definitions and Key Attributes of the EHR
Author	William Hersh
Publisher	OHSU
Creator	DMICE, OHSU
Context	continuing professional development
Cost	yes
Copyright	yes
Copyright owner	Department of Medical Informatics and Community Epidemiology.
Contact	William Hersh, hersh@ohsu.edu

Below the metadata table is a "COMPETENCIES FOR THIS LEARNING OBJECT" section with a link "Evaluation of electronic health records systems".