



MedBiquitous Point of Care Learning Working Group Charter

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Mission

The mission of the MedBiquitous Point of Care Learning Working Group is to develop XML standards and guidelines to support offering clinicians learning at the point of care, tracking point of care learning, and using point of care learning data for needs assessment.

Goal

Standards are necessary to facilitate discovery of learning at the point of care and integration of education with clinical systems. The Infobuttons standard developed by HL7 offers a way to facilitate discovery of information and education through clinical systems including Electronic Health Records Systems (EHRs), but it does not address many important aspects of the learning process. In order for learning to occur, a number of additional standards must be developed or customized to support the requirements of health professions educators, clinician learners, and patient learners. Supporting standards would increase access to the right education at the right time while reducing the associated administrative burden. Functionality would include automated tracking of point of care learning, seamless access to clinician and patient education resources at the point of care through clinical systems, tracking of topics for later learning, and automated tracking of aggregate usage data for institutional needs assessment and trend monitoring.

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.

The American Academy of Family Physicians (AAFP) defines point of care learning as “practice-based learning that takes place in support of specific patient care.” Clinicians are

increasingly developing and using point-of-care learning products such as Up-to-Date, InfoRetriever, and Physicians Information and Education Resource (PIER). Other types of evidence-based clinical literature may be used at point of care as well. In 2005, the American Medical Association (AMA) Physician's Recognition Award (PRA) and Credit System and the American Academy of Family Physicians (AAFP) Credit System began to award Continuing Medical Education (CME) credit for Internet Point of Care learning. In order to claim CME credit, the AMA and AAFP require learners to review the clinical question, identify relevant sources, and describe the application of findings to practice.

In parallel, the informatics community has been working to integrate decision support into EHRs and other clinical systems. The Institute of Medicine in *Crossing the Quality Chasm* defines decision support systems as "software that integrates information on the characteristics of individual patients with a computerized knowledge base for the purpose of generating patient-specific assessments or recommendations designed to aid clinicians and/or patients in making clinical decisions." In practice, decision support often consists of reminders that enable clinicians to perform clinical tasks that are well understood but often forgotten and alerts that inform clinicians of drug interactions and similar cautions. By their very definition, decision support systems are integrated with clinical systems, and many have taken advantage of the existing Infobutton standard and used it to integrate with EHRs and other clinical systems in a predictable manner.

Currently most point of care learning is divorced from clinical systems and clinician workflow. Point of care learning differs from decision support in that it is often not integrated into existing systems or workflow. In addition, learning requires more than access to information; it requires an instructional method to help learners learn. For point of care learning, the instructional method usually involves application (applying the learning to a given clinical situation) and analysis (reflecting on the application to practice). Standards have the opportunity to support the instructional components of the learning experience as well as the discovery of information based on clinical data and the clinician's practice profile. Point of care learning has been called "the nirvana of needs assessment" by Dr. Nancy Davis, Director of CME for the AAFP, addressing a specific clinical question at a point in time. A standardized method of collecting this data across point of care learning systems could facilitate institutional monitoring of educational needs. With this data, institutions might develop further training and resources, modify systems, or monitor clinical trends. In addition, many clinicians often lack the time to answer clinical questions or take advantage of other learning opportunities at the point of care. Standards could allow clinicians to specify topics for further learning from EHRs and other clinical systems and have that information centrally tracked in an educational portfolio or other learning management system.

The business and technology requirements of providing point of care learning often result in the accredited Continuing Education (CE) provider partnering with a company with technology expertise. This separation of accredited provider from service provider comes with the administrative requirement for the service provider to send all learner data to the accredited CE provider. Typically service providers generate Excel spreadsheets or comma delimited files and send them to the CE provider partners. Administrative work is required for creating and

importing these reports, and regularly scheduled reports mean that CE providers often must wait to receive the learner data.

In addition, medical centers awarding credit for point of care learning based on access to subscription-based resources are developing portals to track the clinical questions asked, the resources accessed, and the application to practice. Clinical collections may be able to facilitate this approach to point of care learning by offering standards-based mechanisms for communicating tracking information to these portals. Such point of care integration could increase the clinical and educational value of subscription-based resources.

Patient education resources are widely scattered across disparate systems. Some clinician education offerings include resources for patients and caregivers, but typically the resources are limited to those developed by the education provider. An approach that allows clinical systems to integrate patient education from the best providers of those resources could positively impact patient care.

Standards Environment

A number of extant standards could support point of care learning in different ways.

- HL7 Infobuttons could facilitate discovery of relevant learning content from within clinical systems.
- MedBiquitous Activity Report could enable the exchange of learner CE data among systems for better tracking of point of care CE activities and automated data transmission.
- Healthcare Learning Object Metadata provides a consistent way of describing learning content. This could be used in conjunction with Infobuttons to facilitate federated search and discovery of clinically relevant content.
- Medical Education Metrics provides a consistent structure for participation and evaluation data related to CE.

In addition to offering guidelines on how to best leverage these resources in a point of care learning environment, the Point of Care Learning Working Group may develop standards for the following:

- Aggregate usage data/needs assessment data
- Topics for further learning
- Learner-specific point of care inquiry data (clinical question, resource, application to practice)
- Federated search of educational content for clinicians and patients

Scope

The working group will focus on developing requirements for usage/needs assessment data and point of care inquiry data. The group may supplement these activities by specifying requirements for Web services to better integrate learning systems and clinical systems. 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.

The working group may develop guidelines to provide guidance to healthcare educators wishing to implement the standards. 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” (special development projects) 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

HL7 Infobuttons, <http://www.hl7.org/>

Point of Care CME, American Academy of Family Physicians
<http://www.aafp.org/x36207.xml>

Physicians’ Recognition Award and Credit System
<http://www.ama-assn.org/ama/pub/category/15889.html>