

# Charter

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## Mission

The mission of the Educational Trajectory Working Group is to develop an XML standard and accompanying guidelines to support the tracking, planning, and audit of learners' educational trajectory across medical schools and national organizations. Educational trajectory is the path of an individual learner through one or more programs of study and includes a sequence of formal curricular activities and events, informal professional development activities and events, and breaks in matriculation. Educational trajectory is likely to be different for every learner.

## Goal

Many medical students participate in informal learning and professional development outside of the medical school, often extending the time needed to complete medical school in the process. While these activities may be enriching and important, the data on these experiences is often buried in a letter of introduction. As a result, educational trajectory data is difficult to access, compare, and quickly comprehend for residency programs, medical schools, and national organizations. Technology standards are necessary to enable common ways of expressing and transporting this data between systems. This in turn will increase the ability of medical schools and national organizations to understand and compare individual learners' trajectory as well as assess trends in educational trajectory within or across medical schools.

## 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.

In October 2007, the Association of American Medical Colleges, Accreditation Council for Graduate Medical Education, Federation of State Medical Boards, and National Board of Medical Examiners held an invitational conference on "eFolio: A Secure Personal Data Manager Serving Physicians."

The conference outlined a vision for an eFolio framework and delineated steps towards achieving that framework, including the development of technical standards. Educational trajectory is one component of an eFolio that learners may wish to report out to residency programs or other medical schools where they are completing a rotation.

Trajectory contains common elements across medical schools but is implemented very differently at each school. These differences are compounded by several other issues. First, there is little agreement across schools as to how trajectory should be recorded. Second, although there is enthusiasm generally for capturing a more robust picture of learners' experiences and professional competencies, there is no consensus on which non-formal learning activities should be represented or the format of any data included. Third, learners are increasingly diverging from a standard four year trajectory.

The eFolio Collaborative, led by Kimberly Hoffman at University of Missouri, developed the following illustration of educational trajectory data presented in a format that is easily read and interpreted by medical school faculty and administration.

Year	Quarter 1 (Sep – Nov)	Quarter 2 (Dec – Feb)	Quarter 3 (Mar – May)	Quarter 4 (Jun – Aug)	Year of Study
00 – 01	03		01		M1
01 – 02	01	04 06	07 08	01 05	M2
02 – 03	05			01	M3
03 – 04	01	09 10	10 11	01 03	M3
04 – 05	03			01	
05 – 06	12				M4

The illustration includes codes for curricular and non-curricular activities as well as color-based representations of fulltime academic study, part-time academic study, academic problems, pursuit of other academic paths, breaks in matriculation, extracurricular activities, community service, and noteworthy clinical experiences. Details of specific activities are included as shown in the following illustrations.

Year	Quarter 1 (Sep – Nov)	Quarter 2 (Dec – Feb)	Quarter 3 (Mar – May)	Quarter 4 (Jun – Aug)	Year of Study	
00 – 01	03		01		M1	
01 – 02	01	04	06	07 08 01	05	M2
02 – 03	05			01	M3	
03 – 04	01	09	07 – Spring break spent working in free clinics in Mexico with other students		03	M3
04 – 05	03			01		
05 – 06	12				M4	

Year	Quarter 1 (Sep – Nov)	Quarter 2 (Dec – Feb)	Quarter 3 (Mar – May)	Quarter 4 (Jun – Aug)	Year of Study	
00 – 01	03		01		M1	
01 – 02	01	04	06	07 08 01	05	M2
02 – 03	05				M3	
03 – 04	01	09	10	05 – NIH research program		M3
04 – 05	05			01		
05 – 06	12				M4	

Data in such a trajectory could be complemented by tools such as the Association of American Medical Colleges CurrMIT Curriculum Management and Information Tool, which contains details about medical school curricula.

## Standards Environment

The existing e-portfolio specifications focus on two paradigms: the paradigm of the e-portfolio as a collection of artifacts such as files, personal reflections, and feedback, and the paradigm of the e-portfolio as a curriculum vitae. The IMS Global Learning Consortium has developed an e-Portfolio specification that addresses the encoding and packaging of the following types of e-Portfolio data:

- Products created by a learner, including documents, graphics, video, and audio files
- Assertions related to the learner's work or competence made by others
- Personal reflections
- Portfolio evaluation rubrics

Europass CV and HR-XML both provide portfolio capability based on the curriculum vitae paradigm. The Europass CV encapsulates name, personal details, contact information, languages spoken, and skills. The HR-XML resume specification provides a common format for the following data:

- Distribution Guidelines
- Executive Summary
- Objective

- Employment History
- Educational History
- Licenses and Certifications
- Military History
- Patent History
- Publication History
- Speaking Events History
- Qualifications (Competencies 1.1)
- Languages
- Achievements
- Associations
- References
- Security Credentials
- Resume Additional Items

In short, none of the existing specifications address the requirements specific to conveying the educational trajectory of a medical student. These standards, together with other standards in development by MedBiquitous, such as the Professional Profile, could support other aspects of an eFolio for the health professions.

## Scope

The working group will focus on developing requirements and XML data specifications for educational trajectory data exchange. The initial focus of the working group will be on undergraduate medical education. North American and International paradigms for medical education should inform the structure of the specification.

Whenever possible, the group will leverage useful specifications developed by other organizations. The MedBiquitous Technical Steering Committee will offer guidance and technical support when needed.

The specifications and services created by this working group may serve as foundation pieces for other specifications 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 and Accelerated Development

The Working Group will meet via teleconference on most occasions. Face-to-face working group meetings 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 and documents shared via wiki.

The initial specification will be produced as part of an accelerated standards development project funded by the Association of American Medical Colleges, Federation of State Medical Boards, and National Board of Medical Examiners. A draft specification for implementation will be delivered on or about December 31, 2009 and interoperability tests will be conducted in January 2010. It is expected that development on the specification will continue past January 2010 as part of the iterative MedBiquitous Standards Development process.

## References

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Resume Recommendation, April 15, 2007. [http://ns.hr-xml.org/2\\_5/HR-XML-2\\_5/SEP/Resume.htmlIMS](http://ns.hr-xml.org/2_5/HR-XML-2_5/SEP/Resume.htmlIMS)

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