

CONTROL ID: 2244662

SUBMISSION ROLE: Innovation Abstracts

PRESENTATION TYPE: Oral Presentation

ABSTRACT BODY:

Short Description: In collaboration with the UCI Informatics department, the Ilios Project, UCSF School of Medicine, and UC Irvine Medical School, a group of students (under guidance of the Ilios Project team) have created a new tool for the visual representation of a competency-based curriculum, managed by the Ilios Curriculum Management system. The tool is foundational in its structure, providing a framework which allows the expansion and adaptation to a variety of data paths and presentation layers.

Problem Statement: Given the complexity and richness of most curricula, in particular those attempting to incorporate new modalities of learning, how can we represent and interact with an accurate and real-time map of the curriculum in the context of competency, instructional modality, and areas of content focus? Is there a way to do so that is both informative as well as accessible for expert as well as novice investigators?

Approach: Working from the foundational concepts laid out in the peer-to-peer conceptualization presented to the AAMC/WGEA in 2014, the team developed a code base which allows for the extraction of data into a shareable presentation model via the Ilios API; this provides for flexibility in both data access and portability. Using the Ilios Project open source philosophy and technology stack as a foundation, the team has built an open source visualizer using readily available tools which can be adopted freely by others. Key success measures included: extensibility for future growth; use of compatible technologies to current development plans in the Ilios Project; universality of representation.

Lessons Learned: While accessing the data is reasonably managed, its density continues to present a significant challenge in usability. While there is much more that could be presented in visualization at any one time, the key appears to be the selective representation of specific targeted areas of the curricular map within any one modality of visualization. The ability to port the tool beyond Ilios to other curriculum management applications would be highly desirable, but would require a modification of the data access points to use some rendering of the current Curriculum Inventory standard, which presents some complications at a structural level for competency data, not the least of which is the replacement of localized competency framework information with the published PCRS (Physician's Competency Reference Standard).

Significance: By allowing a simple visual model of the curriculum, which allows rapid transition between nodes of data at multiple levels within the hierarchy of information, the visualizer is a powerful tool for analysis. We always say "a picture is worth 1,000 words", and in this case, the cliché holds true: at a glance, anyone using the visualizer has a 360-degree view into the curricular map, exposing gaps and redundancies across all categories, and providing a direct line of access from the highest level of information directly down to the most granular. Pre-existing expertise in curricular analysis is not necessary to access and understand multiple levels of information, and the model provides a simple yet powerful underpinning for tools to extend representation with similar ease into numerous more granular areas of inquiry.

References: N/A

Focus of Presentation: UME

Level of Audience: Mid-career

Supporting Docs: WGEA2014-OnANewModel.ppt

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