The Association of American Medical Colleges (AAMC)’s Curriculum Inventory provides enhanced options for health professions educators’ to benchmark and conduct educational research. By incorporating MedBiquitous standards for competencies and curriculum data, the Curriculum Inventory is able to receive data from commercial and institution-developed curriculum management and learning management systems without data entry.

The Curriculum Inventory includes options to upload health professions curricula in a manner that demonstrates the linkages between competencies and school, course, and session objectives, as well as content mapping.

The first phase of development is focused on a Curriculum Inventory for US and Canadian medical schools. Additional phases that include curricular data for graduate medical education other health professions will be incorporated over time. The final product will be a resource for benchmarking and educational research related to health professions education across the continuum of healthcare education.

The Curriculum Inventory is part of a larger project (Medical Academic Performance Services (MedAPS)) that offers new opportunities for medical schools to compare key curriculum components against national data and support curriculum review, accreditation preparation, and educational research.

Curriculum Reports and the Curriculum Inventory will work together to provide demographics-based benchmarking reports and will pre-populate appropriate sections of the LCME Medical Education Database in ASSET -- Accreditation Standards Self-Evaluation Tool (www.aamc.org/asset).

Curriculum Reports are available now at www.aamc.org/cir.
XML Standards for Sharing Data between Systems

Founded by Johns Hopkins Medicine and leading professional medical societies, MedBiquitous is a not-for-profit, international group of professional medical and healthcare associations, universities, commercial, and governmental organizations dedicated to advancing healthcare education through technology standards that promote professional competence, collaboration, and better patient care. MedBiquitous is accredited by the American National Standards Institute (ANSI) to develop information technology standards for healthcare education and competence.

MedBiquitous members are creating a technology blueprint for professional healthcare education. Based on XML and Web services standards, this blueprint will weave together the many activities, organizations, and resources that support the ongoing education and performance of healthcare professionals, creating more integrated access to educational resources. Ultimately, this blueprint will seamlessly support the learner in ways that will improve patient care and simplify the administrative work associated with education and competence assessment.

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Curriculum Management System Solutions and Vendors

The curriculum management solutions and vendors on the following pages are working with the AAMC and MedBiquitous to develop and implement standards for sharing curriculum information with the Curriculum Inventory, an international directory of curriculum information that will be designed, hosted, and administered by the AAMC. A list of vendors is found below and vendor descriptions* are found on the following pages.

*Curriculum Management System descriptions were provided by the vendors; inclusion in this document does not imply AAMC endorsement.

Participating Curriculum Management System Solutions and Vendors:

1. 4iQ Solutions
2. All of E Solutions
3. Ilios
4. TUSK
5. E*Value
6. Entrada
7. Knowledge4You
8. LCMS+
9. MedHub
10. New Innovations
11. OASIS
12. one45
13. OpalQM

Non-Profit Solutions

The Ilios 2.0 Curriculum Management System addresses the needs of the Health Professions educational community by providing a user-friendly, flexible, and robust web application to collect, manage, analyze and deliver curricular information.

Ilios 2.0 manages and tracks both learners and instructors and their relationships to curricular materials and activities, which enables the tracking of educational hours, roles and role transitions for curriculum participants both internal and external to an institution. Ilios also provides a robust, scalable delivery mechanism for calendar and scheduling information, with direct access via fully-featured user-centric calendars to critical course information, materials, and other educational systems and services, such as online course environments and digital asset archives.

Built by and for the health professions, Ilios 2.0 supports the sharing of curriculum outcomes and materials among programs, departments, schools and institutions, while maintaining the flexibility to accommodate the unique practices within our diverse health professions community. For schools already using (or considering the implementation of) online learning systems such as Moodle, Blackboard or Sakai, Ilios provides a backbone of curricular information to make that deployment more robust and to complement the rich online tools, activities and materials already in use. Ilios 2.0 is distributed under the General Public License (GNU) free software license.

Ilios Contact Information:
Kevin H. Souza MS | kevin.souza@ucsf.edu | http://www.iliosproject.org
Medical Academic Performance Services (MedAPS)  

**Tufts University Sciences Knowledgebase (TUSK)** is a powerful enterprise educational knowledge management system suited for institutions with complex, longitudinal, integrated health sciences curricula. In continuous development since 1994 by Tufts University, with initial support from the National Library of Medicine and the United States Department of Agriculture, TUSK’s success stems from its deep understanding of the daily operations of health sciences academic institutions and the needs surrounding competency-based learning, teaching and assessment. Content development and management tools, as well as personalized user and Web 2.0 tools, are designed and customized in close collaboration with all user groups. These tools are integrated into one system and enable faculty, students, and administrators to carry out their daily tasks more effectively according to their local needs. TUSK fully supports Tufts’ medical, veterinary, and dental schools and the system is installed and managed locally at other health sciences institutions in the United States, East Africa and India.

TUSK’s comprehensive suite of tools deliver course content to students while serving as a content repository and curriculum management system for faculty and school administrators. Key features include content repository and management using the National Library of Medicine’s Unified Medical Language System; tools for active and distance learning—including case-based learning, self-assessment, quizzes, problem-based learning, and competency-based learning and assessment; curriculum and competency management and tracking; administrative management—for evaluating and comparing training programs across any network of clinical sites or institutions, assessing competency-based education, and collecting data and creating reports for professional health sciences institutional accreditation guidelines; and mobile access.

**TUSK Contact Information:**
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**Commercial Vendors**

The 4iQ Solutions platform empowers educators to flip the traditional classroom experience and provide individualized student-centered learning. Embedded assessment and evaluation facilitates the advanced tracking of achievement towards core educational objectives while identifying weaknesses and gaps in both performance and curricula.

4iQ utilizes the Learning Objective as a foundation to which information relates. By grouping Learning Objectives to your Program Objectives that are tied directly to Core Competency Objectives (both from an institutional as well as a governing body standpoint) you’re able to effortlessly track student progress and level of cognitive learning towards your overarching concepts and goals.

By further associating various methods of learning to your objectives, you empower students to actively take part in the learning process, choosing the types of activities that best suit their individual learning styles. By imbedding outcome measures directly into your educational objects, including assessment as well as evaluation and feedback, 4iQ quickly provides the data needed to make quick decisions on performance deficits and gaps.

**4iQ Solutions Contact Information:**
Jason Adams, President/CEO | 614-300-1110 | jadams@4iqsolutions.com | http://www.4iqsolutions.com/

**ALLOFFE solutions. eMedley** along with its constituent modules, eCurriculum, ExamN, eClas, eduSched, Evaluate, and eKeeper, is the culmination of 15+ years’ experience in the education sector. Used by university health science programs in over 40 states, eMedley is the only health care education solution that offers:

- **Curriculum Mapping and Management:** Gap and overlap analyses, pre-loaded MeSH Terms, PCRS, Instructional and Assessment Methods, and more. Automatically generated curriculum web site, course syllabus template, course and session objective tracking.

- **Secure Assessment and Testing:** Lockdown browser, online and off-line testing, bubblesheet scanning, comprehensive dashboards, item bank management, group testing, grading rubrics, competency based testing, preloaded standards and medical topic tags, item analysis, score releasing, test progress monitoring, randomized ordering of test content.

- **Clinical Experience Portfolios:** Case logging, diagnosis and procedure tracking, time tracking, assignment tracking, student self-reflection, portfolios with curriculum integration, competency tracking, data dashboards, and ad-hoc reporting.

- **Scheduling:** schedule planner, preference-based planning, lottery-based scheduling, optimization scheduling, track and path scheduling, interactive site map interface, internal and external rotation scheduling, adjunct lecturer scheduling, iCal export and calendar synchronization, capacity management and tracking.

- **Evaluations:** Course and instructor evaluations, formative and summative evaluations, competency based evaluations, clinical site and preceptor evaluations, student performance evaluations, self-evaluations, and automated reminders.

ALLOFFE solutions. eMedley  

www.aamc.org/medaps  

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• **Documentation and Credentialing Management**: affiliation agreement tracking, faculty and preceptor credentialing, student immunization and certification tracking, license expirations and renewals, automatic expiration reminders, site logistics and documentation, specialty tracking, contact management, mail merge, Dean’s letter creation, and schedule driven correspondence management.

  eMedley’s modular structure allows health science programs to implement just the functionality that they need while allowing them flexibility to scale as requirements change. eMedley is based on an architecture that is highly customizable and configurable to meet each client's unique and specific needs.

  **eMedley’s Contact Information:**
  Tracy Kemp | 785-832-2900 | tkemp@allofe.com | www.allofe.com

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**E*Value** is powering healthcare education, and represents the foremost cloud-based solution in its marketplace. Delivering unrivaled UME experience, E*Value now supports over 65 colleges of medicine worldwide, and is leading the way on improved usability, optimized scheduling, competency-based education and other trends.

**E*Value Curriculum Management** is intelligently ingrained with E*Value didactic and clinical components, and includes robust curricular mapping, analysis, keyword look-ups, document management & search, activity linking (course & session level), assessment integration, and reporting. E*Value is an enterprise solution, as demonstrated by its unsurpassed patchwork elimination, seamless integration with university systems, and scalability to entire healthcare campuses. For students, faculty and administrative staff, E*Value is a benefits-laden powerhouse – delivering user-friendly and automated tools that support day-to-day tasks and learning activities.

**E*Value** is actively collaborating with its medical school and healthcare clients, MedBiquitous, and technology experts, and continues to deliver industry-defining web and mobile solutions. With our recent acquisition by Ascend Learning (www.ascendlearning.com), our growing company is well-positioned to provide unparalleled advancements to healthcare education in 2012 and beyond.

**E*Value Contact Information:**
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**Entrada** is an open source web-based platform and framework created to allow teachers, learners and curriculum managers a simple way of accessing, interacting, and managing the curriculum within their educational environment. **Entrada** is ideally suited for the health sciences because of its integrated curriculum tagging features and clerkship support; however, it can easily be modified and adapted to almost any professional program.

The **Entrada** project is built upon the philosophies of open access and collaboration, and we welcome new interest in the project. We take a different approach to eLearning compared to other more traditional learning management systems, so much so that we try not to classify **Entrada** under that umbrella to closely; think LMS without all of the silos.

Some of the core functionality that exists in **Entrada** today includes multiple organization support (i.e. Undergraduate, Postgraduate), curriculum and objective management, learning event management, complete curriculum search, interactive user driven community system, people directory, integrated self-hosted podcasting, learner notifications, integrated quizzes and gradebook, integrated Google Apps support, RSS and iCalendar ready, faculty annual reporting, medical student performance reports, and much more.

**Entrada Contact Information:**
Matt Simpson | simpson@queensu.ca | www.entrada-project.org

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**Knowledge4You** has been a provider of Business Intelligence solutions and Software / Solution Development in the medical sector for nearly 15 years. We provide a wide range of services for both Undergraduate Medical Education and Postgraduate Medical Education through our MedSIS and POWER systems respectively.

As part of MedSIS, **Knowledge4You** has developed the Curriculum Mapping module which is designed to capture systematic medical knowledge, encompassing all necessary objectives to prepare students for their medical career. Curriculum Mapping is also designed to identify redundancies and gaps in the curriculum, helping to ensure accreditation compliance by enabling the curriculum planners to define the necessary student experiences and encounters. This is achieved through mapping and tracking student learning objectives to learning activities, events, and evaluations within each course.

The data structure is hierarchical in design, which allows for flexibility in mapping curriculum elements to their respective competencies. The mapping feature allows the system to be flexible and customizable for various professional programs. The Objective, Activity, and Assessment elements are linked through customized taxonomies developed for each University, allowing for easy search of courses, events and objectives.
Some key features of Knowledge4You’s Curriculum Mapping module are:

- Taxonomy Hierarchical Structure
- Tracking Competencies
- Tagging Functionality
- Search System
- Mobile Interface

The MedSIS Curriculum Mapping module, designed through close collaboration with our clients and through following industry standards, continues to evolve as we welcome aboard new clients.

Knowledge for You Contact Information:
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LCMS+ (originally known as BlueDocs) was developed at Duke University School of Medicine and has been in use there since 2005. This comprehensive system gives you exceptional curriculum mapping ability which aligns directly with the accreditation requirements of the LCME.

Among the robust features of LCMS+:

- Comprehensive curriculum mapping linked directly to all learning events, learning materials and exams, to help identify outcomes, gaps and redundancies in your curriculum
- A fully-integrated exam system which can deliver traditional exams, TBL events, and clinical skills assessment
- A sophisticated content management system
- An integrated evaluation system for both faculty and students
- A highly flexible Faculty Contribution Tracking module to measure and track faculty contribution by individual, department and several other categories
- A Patient Encounter Tracking system (PET) that links to courses for easy reporting and tracks duty hours, diagnostic conditions and procedures encountered
- Extremely flexible and sophisticated role-based access with definable levels of security

For students, LCMS+ offers a highly focused front-end that delivers curricular materials via a calendar-driven interface customized to each student’s individual schedule. Students receive automatic notifications when new materials are uploaded for their courses and events.

In addition to Duke, LCMS+ has been adopted by schools of medicine at Yale, the University of Kansas, the University of Louisville, Temple University, the University of Toledo, the University of Cincinnati, Central Michigan University and several others, including many newly established medical schools in the U.S.

Designed to be highly flexible and modifiable by our client schools, LCMS+ gives you the access and agility of an open system with the support and stability of a commercial system. It’s the best of both worlds.

LCMS+ Contact Information:
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MedHub is a best-in-class, integrated web-enabled enterprise GME and UGME management solution developed to improve communication, collaboration, and streamline information management. The MedHub system addresses critical functions that support both graduate and undergraduate medical education. Tools such as evaluations, curricula mapping, portfolios, case logs, schedules, didactic activities, learning modules and communications are tightly integrated to decrease redundant effort, increase efficiency and improve the response to complex regulatory requirements. The result is streamlined elegant and intuitive workflow that is also powerful yet very flexible MedHub is the only enterprise-only LCME/GME management system designed specifically for large complex academic teaching hospitals.

MedHub Contact Information:
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Since 1995 New Innovations has assisted tens of thousands of medical personnel with the task of managing their training programs. We are currently serving 55.2% of all M.D. residents and 20% of the Medical Schools in the United States and our software caters to GME and UGME users within the same database. With this combination, faculty members who work with medical students and residents can evaluate them both from one login. Administrators can control access to secure residents’ and medical students’ confidential information. The undergraduate software offers several applications to facilitate medical education including Curriculum, Lottery Scheduling, Evaluations, Case Logging, Personnel Data, Scholarly Activity and Journaling.

New Innovations Contact Information:
Steve Reed | 330.899.9954 | stevereed@new-innov.com | http://www.new-innov.com/
ONLINE ACCESS TO STUDENT INFORMATION AND SCHEDULING (OASIS) is an advanced web-based solution designed to meet the unique scheduling needs of today’s medical schools. With lottery scheduling, curriculum tracking and information management capabilities, OASIS offers a complete scheduling management system. To facilitate the efficient exchange of data, OASIS integrates with systems such as Banner and PeopleSoft, as well as other custom developed student information systems.

Health science and professional schools use OASIS for web-based scheduling and as a central hub for collecting information from and dispersing information to students and faculty. Administrators can easily manage student records and track enrollment, curriculum and events with online access to real-time course rosters, schedules and student information. Students gain greater control over schedules, requirements and degree progress with convenient desktop and remote access to course and lottery scheduling, an online course catalog and academic records. Standard OASIS features include academic history, course requirements, curriculum tracking, GradeBook, Final Course Grades, lottery-based scheduling, notices, on-line course catalog and real-time reports. Additional modules include an evaluation module, with data analysis and Patient Encounter Tracking and a fully searchable electronic events calendar.

OASIS has a proven track record as a powerful and flexible web-based scheduling solution with personalized, responsive customer service. With continuous product development, OASIS can provide solutions that adapt to your program’s individualized needs.

OASIS Contact Information:
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Since 2002, one45 has partnered with more than 40 medical schools to deliver our oneMED medical school intelligence solution to solve their accreditation, curriculum management, assessment, scheduling and information management challenges. Through our flexible software suite, you can choose to implement a comprehensive solution to manage all of your intelligence and administration needs, or select individual modules to meet your immediate goals:

- curriculum
- scheduling
- assessment
- autoSchedule
- logbook
- gradebook
- reporting & intelligence

Based on a Software-as-a-Service platform, our solutions are web-based, quick to learn, and easily integrated with other technologies, including CurrMIT now, and the new Curriculum Inventory in 2014. More than a software vendor, one45 is your healthcare education technology partner, dedicated to helping you achieve your accreditation and student success goals – and meeting your evolving health education and technology needs. Our customers choose us for our advanced technical and intelligence capabilities and ease-of-use. They stay with us because of our drop-of-a-hat service availability and comprehensive training and super-administrator programs. For more information, visit www.one45.com.

one45 Contact Information:
Beth Legacy | 855-505-0145 | beth@one45.com | www.one45.com

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OpalQM is a new approach to curriculum management for medical education. The OpalQM quality management system is a collaboration between the University of Manitoba Faculty of Medicine and Online Business Systems, a professional consulting company that has been solving organizational and technology challenges for our clients since 1986.

OpalQM is a fully customizable solution that can be tailored to meet your unique needs. OpalQM provides: objectives tracking, curriculum mapping and accreditation reporting; mapping from objectives, through courses, to outcomes; clinical evaluations and logs; integrated exam management; and course / rotation scheduling.

Faculty, staff and students benefit from OpalQM’s integrated, intuitive tools to speed adoption and provide accurate data. Deans benefit from OpalQM’s comprehensive analytic reporting solution that monitors their key quality metrics and tracks their requirements for accreditation.

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