MGH/McLean Adult Psychiatry Residency Program

Request for Learning Management System Proposals

1. Introduction

1.1. The MGH/McLean Adult Psychiatry Residency Program is seeking a developer to work in close collaboration with MGH/McLean program directors, content experts, and administrative staff to produce a web-based learning management system (LMS). The goal is to create a LMS that the Residency can use to as an online learning aid and a means for automating the task of tracking resident progress during the four-year program. This 12-month project will include the development and creation of a web-based LMS able to satisfy the four main needs of the Residency as stated below.

1.1.1. The LMS needs to be able create and modify course modules, track resident progress through the courses, allow for feedback to be collected from faculty and residents, then easily distributed to the applicable parties.

1.1.2. The LMS needs to have the ability to track residents’ progress on a multifaceted, thread based, psychiatric milestone system.

1.1.3. The LMS needs to have a WIKI resource archive component. The LMS will need to adapt integrate data from the residency’s existing WIKI and AMION scheduler.

1.1.4. The LMS needs to have a robust discussion function that allows messages to be sent within courses, across user groups and to individual users.

1.1.5. The LMS must have the ability to interface with existing programs used by the residency, with an intuitive application programming interface.

1.1.6. Have a Single Sign On (SSO) system that interfaces with the existing Partner’s Health Care SSO.

1.2. The users of this system fall into four main categories, residency directors/administrators, course directors, residency faculty, and residents. Each category will also have subcategories. This content must be integrated and displayed via an intuitive and easy to navigate dashboard system capable of displaying user specific information.

1.3. The proposed website solution should be easy to navigate and search, as there will be a large amount of stored information. The ideal solution shall provide a unified, easily updated, dynamic, and secure on-line web presence. The LMS must meet all Partners IT security requirements and use the Partners user ID and Password system for user login credentials.
Necessary project development and implementation expertise will include:

- **LMS design:**
  - Ability to create a compelling interface which will engage users in a self-directed learning experience;
  - Ability to create and modify individual course modules which will include various document attachments and forms of multimedia (ie video, audio, slideshows);
  - Ability to have multiple course classifications;
  - Have multiple user classifications and sub classifications with class based permissions that can be altered as circumstances dictate;
  - Adapt and integrate information from existing residency resources including but not limited to, the psychiatry WIKI and AMION scheduler;
  - Ability for administrators to ping groups or individual users on their dashboard as a reminder to complete specific tasks;
  - Ability to automatically assign residents to courses based on their AMION schedule;
  - Ability for administrators to assign resident users to courses;
  - Ability for residents to enroll in elective type courses;
  - Ability to deploy integrated survey modules which will be embedded within the LMS;
  - Code an embed a database of existing content questions;
  - Ability to automatically generate pre-and post-course quizzes from the question database using content tagging system;
  - Ability to imbed media and content from other websites;
  - Have a robust discussion board able to create various forums linked to course and user categories;
  - Incorporate existing archive of forum communications into the LMS;
  - Have a built in calendar which can interface with existing google calendars, iCalendars and Microsoft Outlook calendars;
  - Create new milestone tracking system which is related but independent from tracking course completion;
  - Ability to solicit faculty feedback about resident progression on milestones relevant to the material they are teaching;
  - The ability to interface with new resident milestone progress tracking system.

- **LMS hosting and support**
  - Provide an ample amount of server space to house required data. Have the ability to expand storage capacity;
  - On-going reliability testing and debugging;
  - Ability to add, edit and remove features a directed by the residency’s directors and/or LMS program manager.

2. **Business Need**
2.1. The mission of the MGH/McLean Residency Program in Adult Psychiatry is to prepare resident physicians for the practice of psychiatry in the 21st century. The program emphasizes fundamental medical knowledge based on advances in clinical science and the growing contributions of basic and applied neurosciences. The core of each resident’s education is extraordinarily rich clinical experience through all years of training.

The learning management system (LMS) will give the Residency’s directors, faculty, residents, and administrative team a comprehensive, digital resource to track resident progress, create course content, collect feedback from and provide feedback to both faculty and residents, serve as a resource library and discussion board. The LMS will allow all users access to content from any web browser or compatible mobile device (iOS and Android).

2.2. The proposed LMS must be extremely user friendly, intuitive to use, and visually pleasing while providing the functionality to meet the goals of the Residency. Each of these needs are equally important to ensure the program wide adoption of the LMS by a user base with varied levels of computer literacy. Furthermore, the vast amount of information that will be housed on the LMS must be easily accessible to even the most unfamiliar user. Having an integrated user specific dashboard system will be a key to achieving this goal.

2.3. Issues

2.3.1. Integrating content from the Residency’s current WIKI website in a way that is useful and easy to access on the new LMS;
2.3.2. Creating a new system to track resident progress along the multithreaded and longitudinal milestone system;
2.3.3. Recoding and integrating existing data sources (Residency WIKI, Content questions, AMION scheduler) into the new LMS.

2.4. Opportunities

2.4.1. Current LMS technologies and best practices can be used to create a robust, dynamic, interactive and user friendly learning environment. We want to capitalize on these best practices;
2.4.2. We are equally interested in the ability to create content and the ability to automate and facilitate routine administrative tasks currently preformed manually by residency faculty and administrative staff.

3. Use Case

3.1 We envision a unified environment where a resident can access their schedule, curriculum requirements, current courses, course material, a digital resource archive, progress of their training and reminders of requirements they need to complete. The
residents should also be able to register for elective courses, complete course feedback surveys, and complete knowledge competency quizzes using this same interface.

3.2 We envision that the same interface will allow a faculty member to create a digital learning environment to supplement their in-person teaching. The course would be divided into individual classes. Within this interface, the faculty member would be able to upload audio, video, and text media to each class module for students to review.

3.3 Before and after each class, the LMS would automatically create pre- and post-lecture quizzes. Questions for these quizzes would be drawn from the Residency’s question database using a content tagging system. The lectures and questions would be tagged by content topic. Questions and their multiple choice answers would be displayed in random order.

3.4 We envision a robust discussion board where course directors can send messages to all residents enrolled in their course, any resident individually, an entire year of residents, or other faculty members using the same interface. Users should be able to create and manage message distribution lists within the LMS.

3.5 We envision the thread-based milestone system as a separate method of tracking resident progress during their residency training. Each resident would be rated on a 1 to 5 Likert scale of how they perform across a variety of content areas. Faculty would be automatically prompted to provide feedback about residents who are currently enrolled in their course or on their rotation. The faculty would only be prompted to provide feedback on the milestones relevant to the subject matter of their course.

3.6 We envision the WIKI component of the LMS to be an easily searchable database with the ability to retrieve archived content and integrate it into various courses. The content itself should be logically organized for easy access. Much of this content will be derived from the residency’s existing WIKI page.

3.7 The LMS will be able to evolve to meet future needs of the residency.

4 Vendor Capabilities

4.1 Solution should consider the following technologies and plan for potential integration:
   4.1.1 Learning Management System
   4.1.2 Course creation system
   4.1.3 Analytics, e.g. Google Analytics
   4.1.4 Individual user accounts
   4.1.5 Video hosting or embedding (via vimeo or other tool)
   4.1.6 A robust discussion and mass/group email tool
   4.1.7 Mobile template for iPhone and android devices
   4.1.8 Techniques to integrate existing digital content for a WIKI
4.1.9 An embedded calendar (google calendar) which can be exported to popular calendar programs.
4.1.10 The ability to modify the LMS to meet the future needs of the residency program.

4.2 Vendor relationship:
4.2.1 Vendors will need to designate an assigned project manager;
4.2.2 Vendor will be required to respond to a technical, maintenance, debugging, and other questions within 24 hours of submission;
4.2.3 Vendor ticketing system for tracking client requests is highly encouraged.

5 Development Timeline: Step-wise development including: discovery phase, development of wireframes, development of mock-ups, integration of existing databases, QA/QC testing, and launch. From discovery to launch should take approximately 12 months. A completed, operational LMS must be in place by July 1, 2015.

6 RFP process – Proposals should be submitted to Patrick Love at plove@partners.org by April 25, 2014. Finalists will be selected for a telephonic presentation to the Residency's steering committee on or around April 1, 2014.

7 Timeline -

Date for RFP Distribution: March, 21, 2014
Vendor Q&A session: May 1, 2014 at 10AM EST
   Phone Bridge: 866-866-2244
   Participant Code: 7277144
Proposals Due Back: May 8, 2014
Presentations from Finalists: June 2-16, 2014
Vendor Selected: July 1, 2014
Alpha-Testing and Data Integration: November, 17 2014
Soft Launch and Beta-Testing: March 1, 2015
LMS Launch: July 1, 2015