CUSP Submission: Education Management System [1]

Description

The Department of Neurology at the Anschutz Medical Campus, like many other CU departments, sponsors, produces, documents, and reports on a wide variety of educational events. These events are often held weekly such as Grand Rounds, resident didactics and professors rounds, as well as monthly or annually such as faculty meetings, journal club, medical Spanish classes, patient conferences, stroke conferences, Continuing Medical Education (CME) events and research conferences. For many of these events, documentation of attendance is required by accrediting authorities.

Traditionally, the sign-in process was handled manually by the events coordinator. Using paper sign-in sheets, the coordinator would update the form with event specific information. Attendees were expected to sign their names and, at some events, provide credentialing or email information. The forms would then be collected by the coordinator who then manually entered attendance information into a spreadsheet and, in many cases, entered the information a second time into a web-based system. At certain intervals throughout the year, attendance documentation was summarized into individual reports which had to be manually entered or converted to a PDF file and uploaded to yet another system or systems. Furthermore, at such educational events, feedback from participants is crucial, but very seldom obtained because of the outdated methods of collecting such feedback – usually a paper survey the participant would be required to complete on the spot or, if sent digitally, fill out, save, and attach to an email. Consequently, feedback was sparse and often not very reliable as too much time had passed between the completion of the event and the collection of the surveys.

This system of tracking attendance and gathering feedback via paper and pen was highly inefficient and required constant monitoring from department staff. It frequently caused long lines, delayed entrance and event start, and some participants would simply bypass the sign-in as they did not care to wait. Often, the handwritten names were difficult to decipher and, as a result, participants would not receive credit for attending.

Such inefficiency costs the University thousands of dollars a year in labor costs. To resolve these problems of inefficiency and minimal/poorly timed feedback, the Neurology IT and Education teams designed and developed an education management system which collects and reports on attendance electronically, saving us thousands of dollars in labor costs and making the sign-in process fast and user-friendly for our faculty.

How does this impact the University?

This innovative education management system has resolved numerous inefficiencies and frustrations that were present in the former paper and pen method. Scanning badges captures

attendance quickly, moving participants into the conference without hindrance and encouraging more participants to document their presence. Badges have unique numbers which are linked to only one database record which eliminates the problem of identifying handwritten names for specific individuals. All data is recorded and backed up on the department server and can be retrieved at any time. With attendance and feedback data stored electronically, any manner of individualized reports can be generated and almost instantaneously uploaded into various systems.

We estimate this project has already saved our Department alone over $2,000 in reduced labor costs and as we transition to using it for all of our events, we hope to realize about $9,000 savings per year. Due to popular demand, we will be creating a service center to provide this and other database-driven technological advancements to other departments.

Implementation Status

The system was implemented in two stages. Stage one of the education management system was implemented in July 2014 and incorporated the iPads which connected to a FileMaker Pro database. This relational database was created with the event information and names and email addresses of all members of the department of Neurology. As attendees signed in on the iPads by entering their last name, their record would be found in the database and attendance recorded. For participants attending the Neurology event for the first time, they would enter their first and last name and email address and the record would be added to the database. Stage two was implemented in December 2014 and included the badge scanner connected via Bluetooth to the iPads.

After working with the Security and Badge Office, we received a spreadsheet containing the badge numbers of the appropriate campus populations – MDs, PhDs, medical students, residents and fellows. By utilizing iPads in conjunction with scanning employee badges, participants merely swipe their badges as they enter the conference to capture their attendance. At the close of the event, a single button push sends an email to attendees who simply open a webpage to provide valuable and timely feedback.

Please view a brief video of the project at https://neurologysurvey.ucdenver.edu/EMS [2]

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Links
[1] https://www.cu.edu/controller/i-e-awards/past-submissions/cusp-submission-education-management-system [2] https://neurologysurvey.ucdenver.edu/EMS [3] mailto:kathy.illian@ucdenver.edu