



COURSE MANAGEMENT SYSTEM USAGE AT A LOCAL MEDICAL COLLEGE: A MEANS TO DIMINISH TUITION INCREASE.

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ABSTRACT:

There are inadequate researches on online medical education. The premise of this paper was to keep stakeholders aware of the need for online medical program using existing course management system and resources they ready have to offer the two years basic sciences online courses. The goal of this research was to assess course content manage system's current usage between faculty and students at colleges. A data from a course management system was used to gather usage of faculty members and students from different colleges. Data suggested that more than 80% of universities and colleges in the U.S. used content management system since 2003. The cost of attending medical college in the U.S. continues to skyrocket. With the existence of web-enhanced courses and technology on campus and the approval of accreditation agencies, medical colleges can start an online program without additional cost in technology. In other for medical schools to diminish the cost of tuition, medical colleges need to offer all the basic science courses online. Online courses would allow students to complete the entire first to two years course requirements without going to campus. The remaining two years would be devoted heavily on clinical rotations.

Keyword: *Medical online program, Medical Tuition, Course Content Management system*

INTRODUCTION

With such a technological-oriented student populations, most medical colleges are investing in leading edge technology which provides a competitive advantage that will meet the needs of students. In order to be effective in this age of digital competition, administrators have to recognize the powerful external forces emerging from the demands for online program and the development of new learning technologies so they can identify strategies to meet these competitive challenges. One of the greatest challenges that medical colleges face today is the need to ensure financial balance while reducing the cost of student's tuition. The growth in popularity of content management

system (CMS) is related to the growth in distance learning among higher education and professional colleges. Enrollment in web-enhanced courses continues to increase in medical colleges across America. In the fall of 2002, 1.6 million students enrolled in an online course. In the fall of 2003, enrollment was 2 million, and in the fall of 2004, enrollment was 2.3 million. The use of course content management system grew by 13% between 2003 and 2004 (Malikowski, Thompson and Theis, 2007).

Many college courses are being taught online and libraries have banks of electronic resources which are much larger than their physical, on-location print holdings (Hastings, 2003; Price and Oliver 2007; Riley, 2007). Most medical colleges are progressively integrating technology into curriculum and medical colleges are no exceptions. As a result, changes are inevitable because changes are issues every practitioner has to face. Progressively, faculty and medical students at all levels are feeling the need to use technology to conduct learning and teaching in medical college (Price and Oliver 2007; Riley, 2007). The cost of attending Medical College has increased since 1978. Most medical students in the United States borrow about six-figure amounts to help finance their education costs. In 2011, 86 percent of medical school graduates had education debt, with a median amount of \$162,000. A borrower with this kind of debt level would have monthly payments ranging from \$1,500 to \$2,100 after residency, depending on his or her repayment plan (American Association of Medical Colleges, 2013).

Practitioners and educators are searching for ways to reduce the growth of healthcare costs. Technology has been cited as one of the methods that might help to reduce overall healthcare costs while the costs of medical education are not addressed (Chaudhry, Wu, Maglione, Mojica, Roth, E., et al. 2006). A research is lacking on online medical education. The premise of this paper is to keep stakeholders aware of the need for online medical program using existing technology and resources they ready have to offer the two years basic sciences courses.

The significance of this paper is to show how course management system has influenced medical college's curriculum. Medical colleges have seen an enormous explosion of business activity on the internet and stories in the press about the vast storehouses of information available online. In the same ways that technology has helped revitalize American business, technology offers great promise for improving education (Schlechty, 2008 and Chaudhry et al., 2006). Similar methods have been used with businesses in the private sector and online programs. The theoretical framework used in business and online program should be adopted in medical colleges to reduce the cost of medical education in the U.S. In several colleges and universities, information technology has been associated with positive outcomes in many organizations. When technologies are used in medical colleges, administrators will be able to save money, streamline operations, monitor academic student progress and retention (Picciano, 2006 and Chaudhry et al., 2006).

METHOD

The goal of this research was to assess course content management's current usage between faculty and student at a local medical college. A primary data from other course content managements were used to gather usage of faculty members and students. The information included students and faculty course management system usage. Faculty and student were the demographic characteristics across the data variables. The demographic characteristics variables helped to assure that the key stakeholders understand the importance of content learning system. These data were collected to

control concerns that the level of management might be an overriding factor in determining the quality of information. It also controls the need to use existing content management system to start an online program.

FINDINGS

As of 2003, more than 80% of universities and colleges in the U.S. use content management system as well as professional allied health colleges (Morgan, 2003). Several faculty members began using email and web-enhanced course management system in an attempt to increase interaction and enhance the teaching and learning processes. Most medical colleges across U.S. use course management system (Malikowski, Thompson & Theis, 2007; Morgan, 2003). Most medical colleges' course content management provides a section for syllabi, lectures, assignments and assessment tool. Students benefit greatly with the course content area. It allows students to review course syllabus, lectures and discussion forums. It helps students to access to lectures, old exam questions; homework, answers that provide students with study tools that will improve students' andragogy. The assessment tools are used at medical colleges to create survey, examination and quizzes in course content management to allow students to test their knowledge on practice exams to verify their understanding before taking the exam in class. Assignments tool are heavily used by faculty members and students. The assignment tool helps faculty members to post assignment for student and submit files for grading. Once the file is submitted, it can be accessed by the instructor via the Grade Center.

The common features used are summarized in Table 1.
Table

Research location	N	Adoption levels for most common features		
		Transmitting content files	News/ announcements	Grade book
38 North American Institutions (Woods et al., 2004)	862	86%	Not reported	59%
University of Wisconsin–Milwaukee ^a (Morgan, 2003)	342	80%	81%	57%
University of Wisconsin–Whitewater ^a (Morgan, 2003)	276	67%	87%	47%
University of Wisconsin–Stout ^a (Morgan, 2003)	166	71%	67%	58%
University of Nebraska at Lincoln (Ansoorge & Bendus, 2003)	192	69%	Not reported	Not reported
Private US University (Dutton et al., 2004)	191	First and second in a list of 17 ^b	Fifth in a list of 17 ^b	Ninth in a list of 17 ^b

Source: Malikowski, Steven R., Thompson, Merton E., Theis, John G. (2007, p, 157)

Table 1 shows 862 North America used course content management system, 86% used content areas to post lectures. Content management system was also used at University of Wisconsin at Milwaukee, which used 80% content area. Overall average users content area the data by University of Nebraska at Lincoln which 69% usage. Most course content

management systems have been upgraded to the latest version of more modern and user friendly version. In another college, the composition of the active course content management system users were largely students and accounted for approximately. Table 2 shows overall summary of course management system usage with a month.

Table 2 Overall Summary of Blackboard Usage

Stakeholders	Numbers
Number of Active Courses	841
Number of Active Users	663
Number of Instructor/Leader Users	136
Average Page Views Per Day	445
Number of Users	1871
Page Views on Most Active Date	16054

The distributions of data concerning average users per month are summarized in table 2 above.

One could also deduce from the figure that both students and faculty members have been actively using course management system. Course management system data also revealed that students depend heavily on course management system throughout the whole calendar year. Course management system provides education continuity and many great features that allow student to access their grades and course content and assignments. The purpose of this data was to show that when schools were not in session, students were able to view class handouts, past quizzes, and discussion forums and assignments. Wade and Hulland (2004) summarized findings from previous studies examining the effect of technology on organization performance. They concluded that technology has a favorable usage and effect on organizational performance both directly and indirectly; with other technology or non-technology organizational resources.

CONCLUSION:

Both faculty and students are already actively engaged in using course management system. In another studies, nearly ninety percent (89.1%) of university chairs indicated that their departments [were] using a web-based course management tool such as: Blackboard, Moodle, Edmodo, Corner stone, SumTotal System, Prometheus, Total system, e-College, etc. Course management system adoption patterns were also consistent among both public and private institutions (Harrington, Gordon, Schibik, 2004). Course management system is used by most medical colleges nowadays and it appears to improve online learning experiences. Online courses are very different from the traditional class; student must have the self-discipline to log on to online course at least three times per week, even though everyday is recommended if students want to do extremely well (Zucker, 2009; Larson and Murray 2008). The cost of attending medical college in the U.S. continues to skyrocket. Utilizing the existing technology on campus, and without additional cost, with the approval of accreditation agencies, online program could be started.

The American Association of Medical Colleges (AAMC) represents all 141

accredited United States and medical schools. It has about 400 major teaching hospitals and health systems. AAMC has 51 Veterans Affairs Medical Centers; and 90 academic and scientific societies. AMC represents 128,000 faculty members, 75,000 medical students, and 110,000 resident physicians (American Association of Medical Colleges, 2013). With the approval of AAMC, most medical colleges can start an online program to cover nonclinical classes. Especially, medical humanities program such as critical reflection on medical knowledge; interpretations of medical and patient experience; engagement with ethical dilemmas; acquisition of cultural and civic competency; cultivation of an ethos of professionalism (Oregon State University, 2013). Preparing students for the 21st century, with the onrush of new technologies and the flood of multimedia products required restructuring of content. It also requires rethinking of existing methodology and assessment tools. Radical changes in technological environments, accreditation and government policy will force medical colleges to take a new perspective. Stakeholders particularly hold key to success or failure in forming the online medical schools. If medical colleges plan to execute online program successfully for teaching, more than minor adjustments in existing practices are required. It is critical that the planning process encourages key stakeholders to get involved in each aspect of the decision-making process (Zucker, 2009; Hartman, 2008). Achieving meaningful technological transformation requires institution-wide, systemic initiatives involving input and assessment from a large number of faculty members and administrators (Hartman, 2008). CMS serve as document repositories giving both the faculty and the student the ability to develop just-in-time strategies for teaching and learning. Students no longer need to be anxious about losing an essential assignment. Faculty members know that students can gain access to relevant classroom materials 24/7 (Malikowski, et al., 2007). It is generally agreed that technology can enhance the achievement of all students, improve faculty members' skills and knowledge as well as improve medical education.

RECOMMENDATION:

In other for medical schools to reduce the cost of tuition, medical colleges need to offer all the basic sciences except anatomy lab online. Most medical students are driven, self motivated and independent learner. Online courses allow students to complete the entire first to two years course requirements without going to campus. Conducting assessment for step one should be done as thoroughly as possible; indicating targets that have been reached. After passing step one, students will spend the remaining two years with clinicians, who will further mentor them in clinical settings so that patient care will not be jeopardized.

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