Chapter 11
Enterprise Resource Planning Systems in Higher Education

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ABSTRACT

Since most higher education institutions have, or will, implement enterprise resource planning systems (Cramer, 2005), it is important to understand how such an implementation will have an impact throughout an institution. In this chapter, enterprise resource planning systems will be defined, and the benefits to the various constituents of the institution will be described. Barriers (and strategies for overcoming them) will be identified, specifically administration-related barriers, resource allocation barriers, time barriers, barriers related to campus policies, human barriers, and product specific barriers. Leaders of institutions at the crossroads, who are determining whether or not to implement an integrated ERP, can better understand the social implications of such projects as a result of consideration of the key issues raised within this chapter.

INTRODUCTION

Innovation depends on technology, yet many times technology drives innovation. As business practices in personal and professional endeavors become increasingly dependent upon access to the internet and online services, higher education has been forced to become more and more technologically advanced. With the evolution of online learning and distance learning opportunities, those institutions that can meet the needs of a potential pool of applicants who are willing to "shop around" to get the best "deal" are more likely to attract qualified students. In many ways, "students" have become "customers." Colleges and universities are forced to become both more accountable and responsive to an impatient and fickle customer base. Unhappy customers can easily find another institution that will meet their needs, and these customers are willing to transfer if another institution meets their needs faster and more efficiently. Higher education has become an industry.

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With constantly emerging technology advances, customer service in higher education has been redefined from face-to-face interactions during business hours to 24/7/365 online services. Where the pressure for smiles, efficiency and friendly service used to be a priority to attract prospective students and parents, the pressure now is to respond first, and give the customer exactly what they request -- many times with real time, personalized electronic contact, and no face-to-face time. Customers in higher education include community members, prospective students, parents, current students, alumni, faculty, staff, and donors. Additional groups of interest include board members, state and federal agencies, and policy makers. All of these constituents have grown to expect real-time service and accurate data at their immediate disposal. Any error in data could defer funding or provide embarrassment in the public arena.

Prospective and current students want to complete transactions (including advising, transcript requests, registration and fee payment) in the privacy of their home and sometimes at unconventional times of day, week or year (e.g., services over holidays are becoming increasingly common, at times when institutions used to see as "down time" for many staff members). Institutions feel a sense of pressure from these constituents to increase online services, especially as education has become more global. Students are shopping around for low cost online courses that offer flexibility in order to meet their academic (or non-academic) goals. Enterprise Resource Planning systems have become the vehicle that can help institutions to meet these goals.

DEFINITION OF ENTERPRISE RESOURCE PLANNING

Shoemaker (2003) defines an Enterprise Resource Planning (ERP) as an "integrated software application that supports the core business processes of a firm by handling and integrating most of the intra-firm business practices in real time" (p. 69). This type of system, usually implemented in modules, forces an integrated and real-time student information system to provide information to policy makers, administrators, recruiters, advisors, teachers, fundraisers, students and staff members alike. Since all constituents feel that their own needs supersede those of others, and demand instant and accurate information, implementing such a complex system requires decision makers and project managers to carefully consider current (and future) calendars, project timelines, and team assignments. Lack of attention to detail during implementation can have disastrous effects on an institution post-implementation.

HISTORY OF ERPs IN HIGHER EDUCATION

Many institutions adopted ERPs in the mid to late 1990s to handle the Y2K changeover, as well as retirements of those who had created and maintained home grown systems. As these employees faced retirement age, institutions were faced with the challenge of trying to train newer employees on old technology, or moving to a system that could deliver the integrated processes that were needed. Home grown systems were dependent upon those employees that had basically grown up with and had written systems which had logic limitations. As fears mounted in regards to Y2K, many institutions were forced to purchase ERPs that would prevent what was considered to be a potential disaster at the turn of the twenty-first century.

Concurrently, the world-wide web was gaining presence in business and educational settings. What had once been used by scientists and esoteric researchers became part of the educational landscape. Simultaneously, online services and distance education began to gain momentum. Students were becoming more interested in searching for information and comparing institutions via