Chapter 1

Enterprise System Development in Higher Education

Bongsug Chae
Kansas State University, USA

Marshall Scott Poole
Texas A&M University, USA

EXECUTIVE SUMMARY

“One system for everyone” has been an ideal goal for information technology (IT) management in many large organizations, and the deployment of such systems has been a major trend in corporate world under the name of enterprise systems (ES) (Brown & Vessey, 2003; Davenport, 2000; Markus, Petrie, & Axline, 2000). Benefits from ES use are claimed to be significant and multidimensional, ranging from operational improvements through decision-making enhancement to support for strategic goals (Shang & Seddon, 2002). However, studies (Hanseth & Braa, 2001; Rao, 2000; Robey, Ross, & Boudreau, 2002) of the deployment of ES in private sector organizations show that the ideal is difficult to accomplish.

This chapter reports a case in which a major university system in the US attempted to develop an in-house enterprise system. The system is currently used by over 4000 individual users in almost 20 universities and state agencies. This case offers a historical analysis of the design, implementation, and use of the system from its inception in the mid 1980s to the present. This case indicates that ES design and implementation in higher education is quite challenging and complex due to unique...
factors in the public sector—including state mandates/requirements, IT leadership/resources, value systems, and decentralized organizational structure, among other things—that must be taken into account in planning, designing, and implementing ES (Ernst, Katz, & Sack, 1994; Lerner, 1999; McCredie, 2000). This case highlights (1) the challenges and issues in the rationale behind “one system for everyone” and (2) some differences as well as similarities in IT management between the private and public sectors. It offers some unique opportunities to discuss issues, challenges, and potential solutions for the deployment of ES in the public arena, particularly in higher education.

ORGANIZATION BACKGROUND

The Land Grant University System (LGUS) is one of the more complex systems of higher education in the nation. Currently LGUS consists of nine universities, eight State agencies and a medical science center that serves over 100,000 students and reaches more than 4 million people each year through its service outreach mission. Research projects under way today by system universities and research agencies total roughly $400 million. The system employs more than 23,000 faculty and staff members located throughout the State and serves all counties in the State. The annual budget for the LGU System is approximately $2.0 billion.

The State established its first college in 1876, and this marked the beginning of the LGU System. During the 1970s and 1980s LGUS experienced tremendous growth in terms of its major activities of teaching, research and public service. The system experienced a 27% growth in its student population, and more growth was expected. In 1986, the system achieved recognition as one of the top ten National Science Foundation (NSF) ranked research universities in the U.S. In addition to teaching and research, LGUS provided significant services to the citizens of the State through practical application of research-based knowledge.

Table 1. The land grant university system

<table>
<thead>
<tr>
<th>The Universities</th>
<th>The Agencies</th>
<th>Health Science Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Big Campus (the largest campus)</td>
<td>• Agricultural Research Station (ARS)</td>
<td>• College of Dentistry (CD)</td>
</tr>
<tr>
<td>• West Campus</td>
<td>• Agricultural Extension Service (AXS)</td>
<td>• College of Medicine</td>
</tr>
<tr>
<td>• Southeast Campus</td>
<td>• Veterinary Extension Service (VXS)</td>
<td></td>
</tr>
<tr>
<td>• South Campus</td>
<td>• Engineering Research Station (ERS)</td>
<td></td>
</tr>
<tr>
<td>• Northwest Campus</td>
<td>• Engineering Extension Service (EXS)</td>
<td></td>
</tr>
<tr>
<td>• Four other campuses</td>
<td>• Forest Service (FS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Transportation Research Station (TS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Wildlife Management Service (WMS)</td>
<td></td>
</tr>
</tbody>
</table>
Related Content

The Selection and Implementation of a Web Course Tool at the University of Texas at Austin
[www.igi-global.com/chapter/selection-implementation-web-course-tool/6343?camid=4v1a](www.igi-global.com/chapter/selection-implementation-web-course-tool/6343?camid=4v1a)

Encouraging Public Involvement in Public Policymaking through University-Government Collaboration
[www.igi-global.com/chapter/encouraging-public-involvement-public-policymaking/54327?camid=4v1a](www.igi-global.com/chapter/encouraging-public-involvement-public-policymaking/54327?camid=4v1a)

The Roadmap for Experimental Teaching of Science and Engineering Based Subjects: Innovative Technology and Social Media in Higher Education
Gordana Collier, Andy Augousti and Andrzej Ordys (2014). *Cutting-Edge Technologies and Social Media Use in Higher Education* (pp. 173-194).
[www.igi-global.com/chapter/the-roadmap-for-experimental-teaching-of-science-and-engineering-based-subjects/101173?camid=4v1a](www.igi-global.com/chapter/the-roadmap-for-experimental-teaching-of-science-and-engineering-based-subjects/101173?camid=4v1a)
Using Automated Feedback to Improve Writing Quality: Opportunities and Challenges
www.igi-global.com/chapter/using-automated-feedback-to-improve-writing-quality/139706?camid=4v1a