

**Centralizing Student Information Systems**  
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**Abstract**

Implementing a new student information system is complicated and costly, whether it is for a large university or a small community college. Computerized student information systems have evolved over time beyond simple record keeping systems into extremely complex enterprise management systems that institutions are dependent upon for their very existence.

With ever tightening budgets a reality, higher education institutions are always on the lookout for new ways of stretching dollars. Consolidation of data management systems is an approach some institutions are using for savings on information technology expenditures. While examples of centralized data systems exist elsewhere, in Kansas each public institution is left to find its own way when it comes to implementing this technology. However, one private-school consortium in Kansas has had success in sharing a system among six independent institutions for nearly forty years.

The implication of pooling resources and utilizing a shared administrative system among Kansas community colleges is enormous. The potential annual cost savings are in the millions. The benefit of sharing a standardized system results in reduced strain on IT departments and an aggregation of expertise that increases productivity at all levels. However, the development and implementation of such a system will require overcoming the tremendous resistive forces that have built the current status quo.

## **Introduction**

Over the past forty years, institutions of higher learning have become increasingly dependent upon computerized student information systems. These systems can range from custom-built, mainframe systems to third party developed systems that are completely Internet-ready. The features available in these systems vary widely, however the basic function of all student information systems is to serve as a database of student information. Depending upon the size of the institution and the scope of features, these systems typically range in cost from tens of thousands, to millions of dollars to implement. Because of the enormous costs involved, it becomes clear that implementing a student information system is a major undertaking for any sized institution.

### **Three Approaches to Student Info System Implementation**

There are three basic approaches to system implementation among higher learning institutions, regardless of the technology being used. The three approaches are the *Open Approach*, the *Standardized Approach*, and the *Centralized Approach*.

With the Open Approach to system implementation, each institution is free to make all of the decisions related to implementing and operating the student information system. This approach offers the greatest flexibility because each institution is able to select the best solution for its particular needs. However, one weakness of this approach is the introduction of inconsistencies in reporting to governing agencies. Because each institution can choose its own solution, data definitions can differ from one institution to the next, creating difficulties in developing comprehensive statewide reports. Another apparent weakness is the inability to have leverage with software vendors both in terms

of the purchase price and in terms of which features are included in future development efforts.

A second approach to system implementation, the Standardized Approach, addresses some of these weaknesses. With the standardized approach, the institutions yield some local control in favor of developing a standardized system to be used among related institutions. Often with this approach, the individual institutions continue to maintain and operate a local system, however the system will comply with the agreed upon standard. Examples of this approach can be found within multi-campus university systems or even within an entire state's educational system. Because each institution follows the agreed upon standard, fewer data inconsistencies exist making state-wide reporting a simpler process. In addition, when several institutions have agreed to purchase the same software together, they will tend to have more influence with the software vendors on issues such as pricing and features.

The third approach to system implementation is the Centralized Approach. With this approach, a single centralized system is implemented to serve multiple institutions. The centralized approach certainly offers the least flexibility to the individual institution, but when properly implemented offers tremendous cost savings as well as several other intangible benefits.

Perhaps one of the oldest examples of a centralized system is found within the state of Kansas. The private school consortium headquartered in McPherson, Kansas, the Associated Colleges of Central Kansas, or ACCK was formed in the late 1960's with a primary purpose of centralizing data processing for six small, private colleges in Kansas. According to Ray Brown, Executive Director of the ACCK, the six colleges realize a

joint annual savings of approximately \$500,000 by sharing a Jenzabar CX system instead of if each college were to run the same system independently. Brown states that there are forces at work that occasionally try to split up the consortium, but it hasn't happened yet because each institution eventually realizes that the cost savings are real and to go it alone would be significantly more expensive. (Brown, R., interview, February 20, 2004)

One benefit of a centralized system that might be less apparent than costs savings is the focused development of expertise. Gavin Doughty, a programmer/analyst at ACCK suggests a centralized system can afford to develop experts that focus solely on a small area of expertise, whereas a small institution operating independently might not be able to afford a technical staff that can devote all of their attention to solving one specific set of problems.

If you think about trying to run a comprehensive system for an entire college with, let's pick a number, two people, it's very difficult because you can't get people that know intimately Financial Aid, Development, Accounting, and so forth. You've got to be a computer expert on top of that. You have to not only know your stuff with regard to computer logic, programming skills, design skills and all of that, but you also have to know these areas. So you end up saying, well if the software will do it, fine and if it won't, tough! Or pay \$50,000 to the software people and let them develop it and give it to you. So you just can't do any kind of an adequate job with a couple of people. With what we're doing, we can have five or six people working in different areas and do a reasonable job. (G. Doughty, interview, February 20, 2004)

At ACCK, the five programmer/analysts concentrate on working primarily with one or two modules and have a high level of expertise with their particular part of the system; however a single institution might only have one or two staff members that must work on all areas of the data system and never reach the level of competency of a dedicated analyst.

## **Barriers to Centralization**

As technology continues to improve, the limitations of what is possible with a centralized system will continue to diminish. However the obstacles to implementing a centralized system are less related to technology and the physical ability to share a system among institutions and more related to the human-political elements.

In a 2004 study of Kansas Community College Information Technology Directors, only five of seventeen participants indicated significant interest in pursuing a centralized data system, while nearly half of the participants had little or no interest in such a project. (Genereux, 2004)

Perhaps some of the lack of enthusiasm for building a centralized student information system can be attributed to a general sense of satisfaction with the performance of existing systems. Fifteen of the seventeen IT Director participants reported that their existing systems either “performed well” or “performed adequately.”

Possibly the biggest obstacle to building a centralized system is simply the wide selection of systems currently on the market and the difficulty of narrowing the choice to one mutually acceptable system. The nineteen Kansas community colleges are currently using eight different student information systems solutions and the average age of these systems is 12 years! (Genereux, 2004) Because of these factors, it seems unlikely that any centralized system development will begin at the grassroots level, but instead would require incentives for change from higher levels.

## **References**

Brown, R. (2004, February 20). Personal interview.

Doughty, G. (2004, February 20). Personal interview.

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