



## **Business Intelligence Competency Centers: A ‘Lean’ Approach to the Delivery of IT Services in Higher Education**

William Knabe, Ph.D., A.B.D., Director of Statistical Data Applications and Institutional Data Analyst for Information Technology Services, The University of Iowa

### **SYNOPSIS**

Establishment of a business intelligence competency center (BICC)<sup>1</sup> is not an easy task, but it can yield tremendous benefits for academic institutions that want to receive the most value from existing data sources. This presentation discusses various aspects of a BICC implementation in an academic setting. It begins with a review of the basics – an understanding of what we have learned about the importance of business intelligence (BI) in the corporate world and its relevance to higher education – and continues with a look at the underlying architecture necessary to provide an effective source of organizational intelligence where quality data can be used to support accurate and timely decision making.

An operational model for the creation and utilization of BI in an academic setting is presented. This model is an adaptation of the SMCR communication model first introduced by Shannon and Weaver (1949) and later modified by Berlo (1960), and the corporate information factory model developed by Inman, Imhoff, and Sousa (2001). Individual components and processes critical to the success of the model are explained. The proposed model integrates BI capabilities with the everyday operational processes of the institution so that the architecture itself disappears into the background. Overall management of this environment is vital to its sustainability and that is where the BICC plays a major role.

A BI environment consists of many projects. It is the coordinated control of these projects that ensures data consistency and reusability between the projects. A central mandate for the BICC is to enable knowledge transfer and enhance analytic skills through data collaboration.

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<sup>1</sup> A BICC is an organizational structure that groups people with interrelated disciplines, domains of knowledge, experiences and skills, for the purposes of supporting and promoting the effective use of information to shape an organization’s strategies (Cognos, 2006).

Finally, this presentation shifts to a discussion of how a BICC can be implemented by academic institutions without regard to size or availability of particular IT resources. Larger institutions, for example, often have a decentralized form of management which can lead to differences in management culture, disagreement about priorities within individual units, and different levels of information maturity. In such an environment it may be more advantageous to establish a community of BICCs rather than a single BICC entity. Dependent on the needs of the organization and its level of maturity (strategic management capability), three distinct levels of implementation – BICC lite, BICC regular, and BICC enterprise – are introduced and described. An explanation of the function and setup (initialization, planning, implementation, and operation) of each of these levels is provided. The presentation concludes with a discussion of how to maintain and sustain data integrity in the BI environment especially when shifts occur in the institution's academic focus.

### References

D. Berlo. *The Process of Communication*, (New York: Holt, Rinehart and Winston, 1960).

"Building a Business Intelligence Competency Center", Cognos white paper reviewed August 28, 2007 at [http://www.cognos.com/innovationcenter/pdfs/building\\_business\\_intelligence\\_competency\\_center.pdf](http://www.cognos.com/innovationcenter/pdfs/building_business_intelligence_competency_center.pdf).

W. Inmon, C. Imhoff and R. Sousa *The Corporate Information Factory*, 2nd ed., (New York: John Wiley & Sons, 2001).

C. Shannon and C. Weaver. *The Mathematical Theory of Communication*, (Urbana, IL: U of Illinois Press, 1949).