Foreword

The EDUCAUSE Center for Applied Research (ECAR) was launched on January 1, 2002, to create a body of research and analysis on important issues at the intersection of higher education and information technology. ECAR is fulfilling its mission through a program of symposia and through the publication of

- biweekly research bulletins oriented to senior campus managers and functional executives;
- detailed studies designed to identify trends, directions, and practices in an analytically robust fashion; and
- case studies designed to showcase campus activities and highlight effective practices, lessons learned, and other insights from campus leaders’ practical experience.

Since ECAR’s inception, four symposia have been held and 98 research publications have been issued.

The EDUCAUSE Center for Applied Research remains a new and evolving venture. ECAR’s success as a research center and business enterprise depends in large measure on our reception with EDUCAUSE members and sponsors. Our members, as always, have shown great confidence in us and have shown their support by subscribing to ECAR despite the emergence, starting in 2002, of a tough economic climate for higher education. These members understand that particularly in tough times, investments in good research and analysis can save money in the long run. ECAR has been especially fortunate to enjoy the support of an unparalleled group of sponsors. While Datatel, Hewlett-Packard, Microsoft, Oracle, PeopleSoft, SunGard Collegis, and SunGard SCT provide significant financial resources to enable ECAR, they are more than financial sponsors. These companies truly believe that impartial applied research on critical issues in higher education makes for a more informed marketplace of both sellers and buyers. These firms are committed to understanding their customers and helping them make the most effective decisions related to their technologies and products. Most impressively, these sponsors understand deeply and respect the importance of intellectual independence in the marketplace of ideas.

Aligning Information Technology in the Academy

In his recent address to the Coalition for Networked Information, University of Virginia historian and Dean Ed Ayers described the modern college and university as playing simultaneously the roles of ivory tower and “fearless creator of the future.”1 Nancy Kantor and Steven Schomberg characterize the same duality as monastery and marketplace, describing the academy as simultaneously a “center for vibrant exchange among people

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and ideas” and a monastery or cloister “unfettered by real-world concerns and the immediacy of delivering on those concerns.”\textsuperscript{2} The trustees, the president (and the administration), and the faculty share the responsibility for guiding these institutions by making choices that honor both roles. Once they make these choices, institutional leaders are often reticent about making them explicit, in a constant but fluid effort to maintain a delicate balance between actions that promote the tranquility of the sheltered grove and those that stimulate the noise and vitality of the marketplace.

Organizations that must simultaneously promote two apparently contradictory ends in a context of shared political power find this challenging. Further, when the core production function (instruction and research) of such an organization is dominated by a cadre of experts who retain ownership of their intellectual property and often toil under guaranteed security of employment, aligning individual behaviors with institutional preferences is difficult. For these reasons, we might better describe colleges and universities as networks of cottage industries rather than enterprises. Aligning priorities in an enterprise is challenging. Aligning priorities within a network of cottage industries is downright hard. All of this becomes even more difficult as colleges and universities move to weather the perfect economic storm of rising tuition, increasing tuition discounting, decreasing state budgets for education, increasing student and parental consumerism, and simultaneous calls for cost containment and increased social and financial accountability.

The alignment of information technology (IT) investments, resources, effort, and priorities proves particularly problematic in this environment. The academy’s loosely coupled nature in general and the change orientation of the higher education IT profession in particular exacerbate the inherent difficulties that have been described. In addition, the IT profession’s relative youth can lead to perceptions that IT practitioners are, behaviorally, “only one floor removed from the basement of the physics building!” While IT is one of the fastest growing elements of higher education budgets, institutional leaders sometimes view IT and its practitioners skeptically as purveyors and promoters of “gee whiz” gadgets and capabilities that fail to recognize the academy’s fundamental purposes and character. This skepticism can manifest itself in the form of anxieties over technology for technology’s sake. Indeed, one recent study of more than 7,400 faculty revealed that “exuberance about electronic resources, evident several years ago, has been replaced by a gnawing dissatisfaction with the scholarly materials that are available online.”\textsuperscript{3}

The convergence of rising IT costs, declining budgets, and academic skepticism expresses itself in calls for greater accountability for IT organizations and in the increasing pressure for IT decisions to derive from and align with broader institutional purposes.

This study begins with a description of this tension; takes the reader through the academic and professional literature related to organizational alignment; reviews practice findings from qualitative, quantitative, and case analysis of data collected from more than 500 leaders in higher education; and ends both with a summary of effective practices and lessons learned and with a more speculative reflection on future modes of alignment in higher education organizations. We offer the following fundamental hypotheses:

\begin{itemize}
\item Institutions that engage in effective IT planning, governance, communications, and measurement and assessment are perceived as doing a better job of aligning IT investments with broader institutional priorities.
\item Dynamic and stable organizations provide better environments for IT leaders to do
\end{itemize}
good planning, governance, communication, and measurement and assessment.

- Survey respondents that report a greater sense of alignment with broader institutional purposes will also report superior IT-enabled institutional outcomes. In other words, the efforts that go into creating good organizational alignment make a positive difference.

This ECAR study expands the developing ECAR analytical arsenal and includes a review of the literature, the results of a major survey of IT leaders, case visits to four institutions, interviews with more than 20 IT leaders, and a review of the Web sites and IT strategic plans (where available) of 250 EDUCAUSE member institutions.

**Important Contributions**

*Information Technology Alignment in Higher Education* is the third ECAR research study of 2004, and the second produced by ECAR. It is the result of a nine-month collaboration undertaken by Bob Albrecht, Bob Bender, Richard N. Katz, Judith Pirani, Gail Salaway, Toby Sitko, and John Voloudakis.

In October 2003, ECAR deployed a survey on this topic to nearly 1,500 EDUCAUSE primary representatives, and 483 institutions in the United States and Canada completed this survey. Their responses form the backbone of this study. In addition, we interviewed chief information officers (CIOs) and other leaders at 22 institutions to gain a deeper understanding of processes such as IT strategic planning, governance, communications, and measurement that are employed, in part, to foster the alignment of IT intentions and investments with those of the institution. Further, we conducted an in-depth review of 57 actual IT plans, which we found by reviewing the Web sites of a random sample of 250 EDUCAUSE member institutions. Finally, to gain an even deeper understanding, ECAR fellows Bob Albrecht, Bob Bender, Philip Goldstein, and Judith Pirani undertook detailed case studies of the processes and practices in place at Calvin College, the University of Cincinnati, the University of Delaware, and The University of Memphis. ECAR owes an enormous debt of thanks to its subscribers, and also to the engaged institutional representatives of EDUCAUSE who share their time generously with us in our quest to deepen each other’s understanding of IT’s interplay in higher education. Those who host ECAR researchers for their work developing case studies merit special and personal thanks. This thanks goes to Henry DeVries of Calvin College, Susan Foster of the University of Delaware, Doug Hurley and Jim Penrod of The University of Memphis, and Fred Siff of the University of Cincinnati.

**Endnotes**


3. V. Kiernan, “Professors Are Unhappy with Limitations of Online Resources, Survey Finds,” Chronicle of Higher Education, April 22, 2004. Kiernan was reporting on research performed under the auspices of Ithaka, a nonprofit organization funded by three foundations.