

Maximizing Value in a Time of Change

Report from the EDUCAUSE/NACUBO 2014 Administrative IT Summit

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EDUCAUSE/NACUBO 2014 Administrative IT Summit

Speakers and Sessions

- **Lawrence S. Bacow**, President Emeritus, Tufts University, “Academic Leadership in a Digital Age” (Keynote speaker)
- **Eric L. Denna**, Vice President for Information Technology and Chief Information Officer, University of Maryland; **Craig Woody**, Vice Chancellor, Business and Financial Affairs, University of Denver, “What Got Us Here Won’t Get Us There”
- **Bruce Robertson**, Vice President, Research, Gartner, Inc., “Business Process Management: Loosening Controls to Enable Innovation and Rapid Change”
- **Gabriel Youtsey**, Interim Assistant Chief Information Officer, University of California, Davis, “A Cloud Total Cost of Ownership Model for IT Decision Making”
- **David Creamer**, Vice President for Finance and Business Services and Treasurer, **Dana Miller**, Business Analyst, and **Alfred Ryan**, Director, Lean Initiatives, Miami University, “Transforming Administrative Services through a Lean Philosophy”
- **Steven D. Zink**, Vice Chancellor for Information Technology, Nevada System of Higher Education, “The ERP Blame Game: It’s IT’s Fault!”
- **Steven Burrell**, Vice President for Information Technology and Chief Information Officer, Georgia Southern University; **Jeff Delaney**, Deputy Chief Information Officer, Board of Regents of the University System of Georgia; **Timothy S. Mescon**, President, Columbus State University, “Innovation and Shared Services: Odd Bedfellows, or a Marriage Made in Heaven?”
- **Timothy M. Chester**, Vice President for Information Technology, University of Georgia; **Phillip Knutel**, Chief Information Officer, Bentley University; **Jack Kramer**, Senior Vice President, Customer Perspective, Ellucian; **Gaspere LoDuca**, Technology Managing Director, Accenture; **Aletha Noonan**, Vice President, Higher Education, CDW Government, LLC; **Robert J. Shea, Jr.**, Senior Fellow, NACUBO, “IT, the Business Officer, and Vendors: Partnering for Better Outcomes”
- **Eric L. Denna**; **Thomas Dodds**, Chief Information Officer and Vice President for Information Technologies, Cornell University; **Steve Fleagle**, Chief Information Officer and Associate Vice President, The University of Iowa; **Laura Patterson**, Associate Vice President and Chief Information Officer, University of Michigan–Ann Arbor, “We Built, We Bought, We Shared: The Costs of Administrative Service Systems vs. the Academic Mission”

Administrative IT Summit Resources

Resources from the meeting, including slide presentations, can be found [online](#).



The business of colleges and universities has never been more complex. Changes in regulations and challenges in every area of campus management make the role of the business officer critical. For more than 50 years, NACUBO has provided professional development opportunities, a community of colleagues, and advocacy for its more than 2,100 member institutions representing more than two-thirds of the nation’s colleges and universities. For more information, visit nacubo.org.

EDUCAUSE

EDUCAUSE is a nonprofit association and the foremost community of IT leaders and professionals committed to advancing higher education. EDUCAUSE programs and services are focused on analysis, advocacy, community building, professional development, and knowledge creation because IT plays a transformative role in higher education. EDUCAUSE supports those who lead, manage, and use information technology through a comprehensive range of resources and activities. For more information, visit educause.edu.

Summary

In June 2014, nearly 150 higher education thought leaders representing both business operations and information technology met in Chicago, Illinois, to discuss challenges and opportunities for administrative IT systems and services. The following recommendations emerged as ways that institutions can maximize the value of administrative IT:

- Gain efficiencies that result in cost reduction or cost avoidance by
 - Developing an institutional sourcing strategy that may include a mix of cloud services, shared services, and on-premise services
 - Examining business processes to decrease the need for customization of administrative IT systems and increase alignment between business processes and institutional mission
- Increase the benefits provided by administrative IT by
 - Using data from administrative systems to provide business intelligence in support of institutional strategy
 - Developing collaborative relationships between IT leaders and business officers and between institutions and solutions providers to drive value from administrative IT systems and services

Setting the Stage

Administrative and enterprise systems support virtually all of the routine functions of a college or university, spanning the institutional mission. They include core ERP systems such as human resources, finance, and student information, as well as learning management systems, research administration systems, and systems that support development and fundraising. Of the 58 administrative systems assessed by the EDUCAUSE Core Data Service (CDS) in 2013, the typical institution has 40, many of which must interconnect to exchange data.¹ The result is a complex and resource-intensive matrix of systems. The care and feeding of these systems is a large part of the higher education IT budget. In 2013, a self-reported 53% of institutional IT spending went to support administrative systems and services.²

“Every CIO and CBO is an academic leader at their institution because their activities are essential to the academic mission of the institution.”

—Lawrence Bacow,
Tufts University

Nearly 150 higher education IT and business leaders met in Chicago in June 2014 to discuss challenges and opportunities for reducing costs, gaining efficiencies, and maximizing the

¹ [EDUCAUSE Core Data Service](#).

² Ibid.

benefits of administrative systems and services. This document provides a summary of speakers' contributions and attendee comments. Because of the importance of the relationship between IT and campus business leaders with respect to administrative IT, NACUBO, the National Association of College and University Business Officers, co-sponsored this event. Business officers were encouraged to attend with their CIOs to take advantage of the opportunity for knowledge sharing and collaboration between these two groups.

These discussions come at a time when higher education continues to be more expensive year after year. The summit's keynote speaker, Lawrence Bacow, noted that tuition has gone up faster than health care costs in the past 25 years. Household incomes during the same time have stagnated. Many media outlets predict the end of higher education as we know it due to the rise of online opportunities such as MOOCs that provide content for minimal or no cost.

Bacow argued, however, that content does not equal education. He was skeptical about higher education's demise, saying that education is a social function that requires discipline of a sort that is hard to replicate in a purely online setting. To support the continuing evolution and success of our colleges and universities, Bacow suggested that IT and business leaders need to make our institutions as efficient as possible, use administrative systems to drive institutional strategy and value, and act as institutional leaders for those efforts at our campuses.

Summit presentations and discussions focused on that concept of driving and maximizing the value of administrative systems and services by reducing or avoiding costs and increasing benefits.

Maximizing Value = Reducing Costs + Increasing Benefits

Although administrative IT represents a significant expense, it is also a significant and sometimes underrealized asset. To gain a better understanding of the value of that asset, summit participants explored how to manage the costs of the administrative IT portfolio and how to derive greater benefit from it, whether by decreasing or avoiding costs, increasing efficiencies, supporting analytics, or examining business processes.

The summit also provided an opportunity to think about the partnership between IT and the business office, as well as the relationship between institutions and corporate partners, and how those relationships can extract greater value from administrative systems and services.

Gaining Efficiencies: Cost Reduction and Avoidance

Although administrative IT systems and services are essential to the operations of our institutions, most of them do not significantly differentiate one institution from another. For example, hiring and paying employees, handling procurements, and managing budgets are all important—even mission-critical—functions, but they don't influence a student's decision to attend an institution.

Efforts to customize these systems and maintain those customizations can add to system costs without adding value. Finding efficiencies in administrative IT can result in cost reduction or cost avoidance in ways that allow reallocation of resources to areas that provide more direct impact on institutional strategy. Minimizing the amount of scarce IT resources allocated to these nonstrategic functions—containing costs, management, and resources as much as possible—is an important part of maximizing the investment in differentiating services. Those differentiating, mission-specific services are the ones that set one institution apart from others and might include a robust community-based learning program, institutionally owned laptops for every student, or enhanced services for first-generation college students.

In his presentation, Eric Denna used a matrix based on Niel Nickolaisen’s Purpose Alignment Model to describe this difference between market differentiating services and those that, while still mission critical, do not provide that differentiating element (figure 1).³

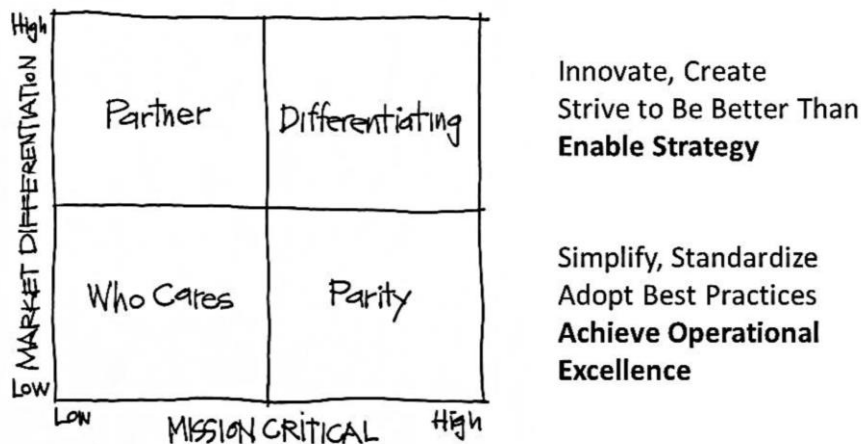


Figure 1. Market differentiation/mission criticality matrix

Many administrative systems fall into the parity quadrant in this matrix, where the goal is to achieve operational excellence and gain efficiencies through simplifying, standardizing, and adopting best practices. Summit attendees discussed two strategies that hold promise for achieving this parity goal through gaining efficiencies in administrative IT: sourcing strategies and business process reengineering.

Gaining Efficiencies through Sourcing Strategies

In their presentation, Denna, Ted Dodds, Steve Fleagle, and Laura Patterson said that the options for institutions in terms of where and how to manage administrative systems are numerous and complex, whether the system is in the cloud, on campus, or managed through shared services, with different options within those categories as well. For any institution,

³ For more discussion about the Market Differentiation/Mission Criticality Matrix, see the [report](#) from the NACUBO/EDUCAUSE Working Group on Administrative Services and Systems. For more about the Purpose Alignment Model, see Niel Nickolaisen, “Aligning to Purpose,” *EDUCAUSE Review* 49, no. 3 (May/June 2014). Model used with permission of Niel Nickolaisen.

determining the right mix of sourcing solutions is an important decision. There is no single right decision for every college or university. Instead, the sourcing strategy needs to be individualized to the institution's culture, needs, and resources. As institutions start to plan their sourcing strategies, where they end up will be greatly impacted by where they start. Each decision is individualized at the institutional level, influenced by factors such as organizational structure, campus culture, and IT architecture in place at the time of the decision. To further complicate matters, sourcing opportunities are constantly evolving, as are the institutions using them. The decision an institution made in 2004 to build an ERP system, for example, might have been a good strategy at that time, but the same institution thinking about the same ERP system today might find a different strategy to be more effective now.

“ERP implementations that tend to succeed focus on the nature of the work: processes that span functional areas, looking at work as it proceeds across the organization.”

—Eric Denna,
University of Maryland

Whether you build, buy, or share, and whether your services are on-site, in the cloud, or shared with other institutions, it is important to be intentional about those decisions. Strategies for decision making include:

- Focus on service delivery rather than technology delivery
- Be selective—use the cloud or shared services at the right time and with the right partners
- Make use of contractual and external resources for new implementations of administrative systems
- Scan regularly for solutions in this fast-changing landscape
- Explore the use of consortia where possible

Summit discussions dove more deeply into two sourcing strategies, cloud services and shared services, to get a deeper understanding of the value proposition these alternatives provide.

Cloud Services

Summit attendees largely agreed that cloud computing holds promise as a strategy for possible cost reductions, but they warned that benchmarking and determining total cost of ownership (TCO) are needed to realize those reductions. Costs for administrative IT are hard to calculate, and cloud services costs might be even harder, but it is important for colleges and universities to understand and define those costs and the drivers behind them. Cloud services offer both promises and challenges for higher education institutions. Some potential benefits are:

- **Lower costs and better services.** Cloud-based e-mail systems, for example, are usually less expensive than on-premise systems and often provide functionality beyond e-mail and calendaring.

- **Faster deployment.** Cloud services can take away the complicated back-end infrastructure that IT organizations manage, allowing IT resources to be reallocated.
- **Easier upgrades.** Cloud vendors manage the upgrades, so IT organizations can avoid that lengthy planning and implementation upgrade process, again allowing possible reallocation of resources.
- **More focus on business.** Central IT can spend less time delivering technology infrastructure and focus instead on strategic partnerships with campus functional units.
- **Immediate scalability.** Scaling is easier with cloud services and can sometimes happen immediately with the click of a button.

On the other hand, cloud services present these challenges to institutions:

- **Risk management.** Institutions need to place more trust in vendors, and there are issues with regulatory compliance, privacy, and security.
- **Shift in IT staff expertise.** IT leaders need to work closely with institutional attorneys, business officers, procurement staff, and risk and compliance officers. Within IT itself, contract negotiation, vendor management, and risk management expertise are becoming important skill sets.
- **Difficulty of cost comparisons.** Colleges and universities find it hard to calculate the total cost of a service, both on-site and in the cloud, and the factors that go into that calculation do not always match up.

Determining the total cost of ownership for cloud services is a difficult task. Gabriel Youtsey, reporting from the ECAR Total Cost of Ownership for Cloud Services Working Group, said that more than 80% of sourcing decisions are based on inadequate financial information, and more than 70% of discrete projects and longer-term outsourcing initiatives exceed the original costing estimates. In addition, according to Youtsey's presentation, organizations fail to include 20% of their internal costs when they develop a business case because of hidden costs. These hidden costs, usually paid centrally and not metered or charged to specific units, include energy costs, facilities costs, student labor, other payroll costs, and indirect costs for grants.

Despite these difficulties in calculating TCO for cloud services, summit presenters and attendees were generally optimistic about the potential for cloud services to add value to future administrative IT services. It was suggested that cloud contract templates or guidelines would be helpful tools, along with guidelines for calculating TCO.

Shared Services

Some summit attendees are finding value by turning to shared services for administrative systems. With shared systems, a number of institutions share administrative systems, adding

value through economies of scale. In their summit presentation, Steven Burrell, Jeff Delaney, and Timothy S. Mescon observed that state systems are probably making the most progress in this area overall, finding opportunities to reduce or avoid costs. There is a challenge, though, in perceived loss of control. Success factors include:

- Good change management practices that include people across all involved campuses and across all types of functional units
- Shared governance and oversight
- Leadership engagement across all institutions at a high level
- A long-term financial model that “feels right” to all campuses

“As a CIO, I can present a vetted, known solution to my institution. That is where you get the collaboration and synergy out of shared services.”

— Steven Burrell, Georgia Southern University

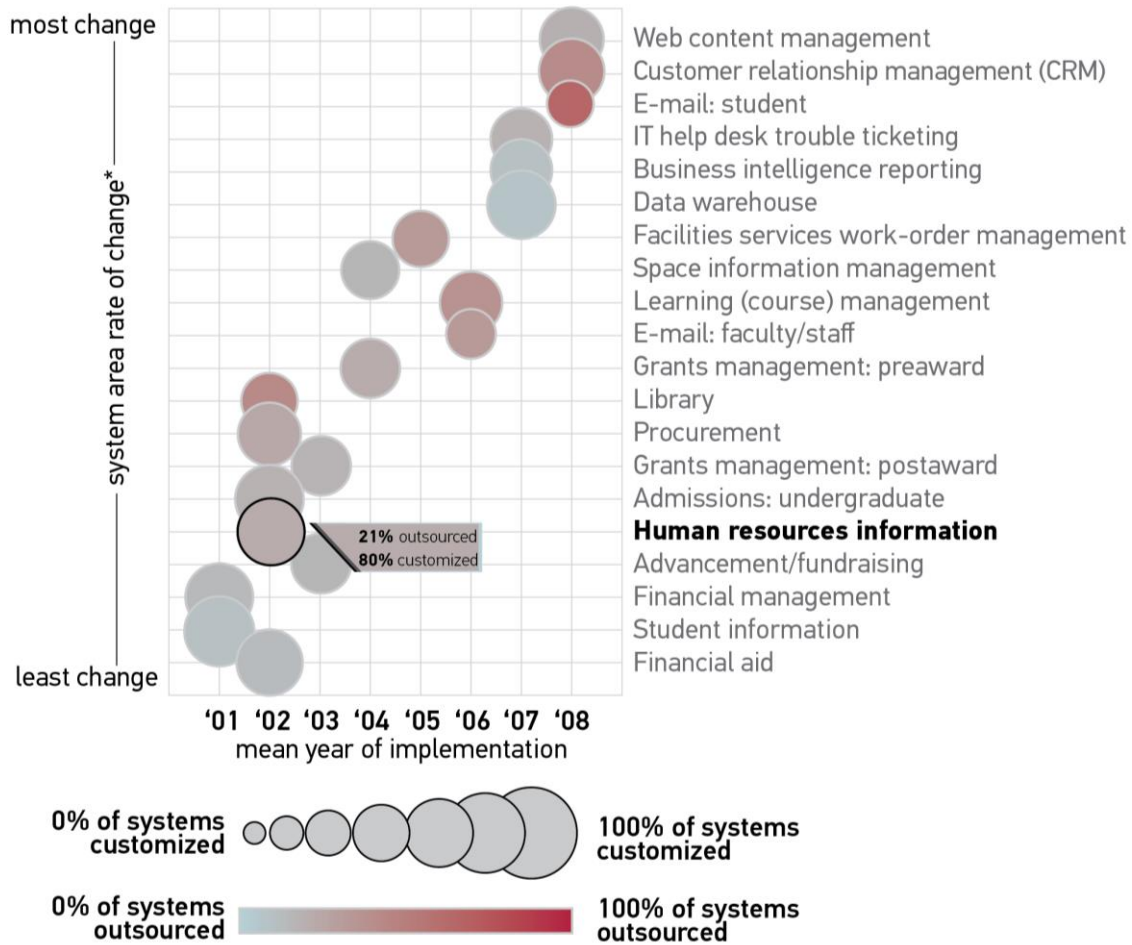
Finding greater value in administrative IT frequently means achieving economies of scale, and shared services is a good example of a way to do that. Economies of scale can create cost avoidance or reduction that leads to reallocation of resources in a more direct focus on mission. As Tim Chester said, “Ultimately the value-add is the human connectedness.”

Every institution, regardless of size and culture, should intentionally develop a strategy around sourcing and examine alternatives such as the cloud and shared services. The strategy for each college and university will be different, determined by institutional mission, culture, readiness, and resources, as well as the current sourcing landscape and opportunities.

Gaining Efficiencies through Business Process Reengineering

Another method for gaining efficiencies that Summit attendees discussed was business process reengineering. BPR management analyzes the design of business processes with the goal of helping institutions rethink workflow and focus on defined business outcomes. Administrative systems are sometimes heavily customized to meet user demand in a way that may not be necessary and may actually contribute to the cost of the system without adding any value. For example, 80% of the 2013 CDS participants reported customization in their human resources systems, yet these systems do not provide a differentiating function (figure 2).⁴ Those customizations are unlikely to advance the institutional mission.

⁴ [EDUCAUSE Core Data Service](#).



*Rate of change is an indicator of how rapidly a system area is changing. It is a composite score based on year of current implementation and on plans to implement new systems or replace existing ones. Systems with the highest rate of change typically have been implemented recently or are expected to be implemented or replaced soon.

Figure 2. Characteristics of core information systems

Examining and redesigning work processes through BPR can uncover opportunities for greater efficiency of administrative systems. Business process improvement methods can lower costs by helping institutions standardize common processes, leading to potential efficiency gains.

It's not easy work. According to Denna and Craig Woody, the more rigorously we address the following questions, the greater our ability to leverage our investment in technology:

- How do and how should we do our work and our business processes?
- How do and how should we make decisions?
- How should we collaborate?
- How do we address these questions in the context of risk?

David Creamer, Dana Miller, and Alfred Ryan pointed out that business process is more than simply workflow. It encompasses workflow design, systems capabilities, motivation, human resources, policies, rules, funding, and other resources. All of those issues need to be considered when we think about business processes.

Business process management should take place across many units at an institution, not simply within IT. Processes do not usually fit well within single functional units. By nature, they tend to span unit boundaries. Steven Zink cautioned that IT and business units measure success differently, with IT focused on system implementation and business units focused on interaction with the system. Bruce Robertson suggested that it could be useful to think about “process” rather than “system.” By thinking about whether a particular *business process* offers value, instead of whether an *IT system* offers value, the conversation can get closer to the business case and help ensure that everyone is talking about the same thing.

Because it addresses the processes that people follow, BPR often results in changes in the way people do their work. Involving people from units across the enterprise helps spread information about a project, increasing buy-in and acceptance of change. It can also be helpful to show success in small areas before moving to bigger projects.

Increasing Benefits

Summit attendees discussed several areas that hold significant opportunities for increasing the benefits of administrative systems and services. In particular, analytics and business intelligence play an important role in maximizing the value of administrative IT. Although there was some discussion of these issues at the summit, there is a need for more opportunities for discussion and knowledge sharing about analytics and business intelligence. Attendees also noted that the relationships and partnerships between IT and the business function, as well as between institutions and corporate partners, were important in increasing the benefits from administrative IT.

Increasing Benefits through Analytics and Business Intelligence

Business intelligence transforms the raw data from administrative systems into meaningful information that can be used to meet compliance and regulatory needs; monitor progress on short-term goals and long-term strategy; and make strategic decisions related to institutional mission (e.g., progress in enrollment management, graduation rates, cost savings, grant funding, development campaigns, etc.). Analytics and business intelligence initiatives increase the degree to which administrative systems and the data they generate can inform academic and operational decisions, leading to institutional improvements across the enterprise. This ability to generate business intelligence makes analytics an important factor to consider in maximizing the value of administrative systems.

Challenges attendees described in relation to analytics and business intelligence involve communication and relationship management, including

- Developing a shared vision for the use of business intelligence
- Developing shared governance and clear data management
- Developing common definitions
- Overcoming the fear of what transparency might bring

All senior institutional leaders need to be on board to build useful metrics and dashboards. There is an opportunity here for a great collaboration across the enterprise.

Increasing Benefits through Partnerships

In addition to managing relationships across the enterprise, CIOs and CBOs need to develop vendor relationships that increase administrative IT value. Purchasing an ERP system or negotiating a contract for a cloud service is the beginning of a long-term relationship. These vendor partnerships bring benefits to colleges and universities that institutional leaders should consider and take advantage of as they maximize administrative IT value:

- Corporate partners can help institutions understand emerging trends and technologies.
- They can act as accelerators of change.
- They can anticipate campus impact from upcoming changes and help the campus through those changes.
- They can help determine marketing strategy, bringing in best practices they have seen in other places.
- They can develop return-on-investment analyses for individual campus use.

Attendees noted that vendor relationship management is a competency that many institutional leaders do not have when they first enter their jobs, and they suggested that leaders consider ways to develop this competency, perhaps through mentorships, internal training programs, or other professional development opportunities. A vendor scorecard could also be helpful as a way to better understand what a corporate partner might bring to a relationship.

Recommendations

Administrative IT is in a state of change. There is a growing number of alternatives for managing systems, and there are new opportunities for using the data our systems contain in more strategic ways. With rising pressure to contain costs, institutions need to derive as much value as possible from their administrative IT systems and services:

- Keep an eye on the changing landscape of sourcing options. Alternatives to an on-premise administrative system are growing. **Develop an institutional sourcing strategy** that may include a mix of cloud services, shared services, and on-premise services. The use of alternative sourcing options may result in cost reduction or cost avoidance, allowing funds to be reallocated to activities with a greater impact on institutional mission.
- **Examine business processes** to decrease the need for customization of administrative IT systems and increase alignment between business processes and institutional strategy. Redesigning business processes may be another way to reduce or avoid costs. This is particularly important in the earliest stages of planning for a major costly system upgrade or change.
- **Use data from administrative systems to provide business intelligence** to support institutional strategy. An analytics strategy will increase the degree to which administrative systems and the data they contain can inform institutional decisions, making analytics an important factor in maximizing the value of administrative IT systems.
- **Develop collaborative relationships** between IT and business and between institutions and corporate partners to increase the benefits of administrative IT.
- **Have a cross-institutional focus.** Efforts to collaborate across the enterprise result in more successful administrative IT operations.
- **Communicate, communicate, and then communicate some more.** Presenters and attendees stressed the importance of communicating early and often about administrative IT issues as a way to increase transparency, get buy-in, increase the success of change management efforts, educate others, provide updates, and so on.
- Remember that **success factors are cultural.** It is important to understand the institutional culture and make decisions appropriate to that culture.

Closing

Maximizing the value of administrative IT is a critical part of our work in ensuring that our institutions are operating efficiently and getting the data they need to make good strategic decisions, both for the short term and the long haul. The 2014 Administrative IT Summit presenters and attendees suggested that colleges and universities can make progress in this area by gaining efficiencies through the development of effective sourcing strategies tailored to our institutions' specific cultures and situations and by examining and reengineering business processes. We can increase the benefits of administrative IT systems and services by developing

institutional analytics and business intelligence strategies and by collaborating effectively, both with corporate partners and across units within our institutions. Communication, collaboration, and maintaining a cross-enterprise focus are all necessary components of our work.

In closing his keynote address, Bacow said,

One of the strengths of American higher education is that academic institutions come in different shapes and sizes. We compete for students, faculty, research, and mindshare. This drives change. No one knows the future, and institutions are pursuing different strategies. Some will succeed as determined by the market, and some will fail. Once someone sees what works, others will try it and adapt. Institutions change, sometimes too slowly. It is our job to help the institution to adapt, change, and evolve. If that means copying and adopting, that is the American way. Some will fail, but I would not bet against American higher education. We are here for the long haul.

CIOs and CBOs are well positioned to provide leadership in helping our institutions adapt, change, and evolve. Using administrative IT in support of institutional strategy is an important part of that work. Presentations and discussions at the summit addressed ways institutions can use administrative IT to advance institutional missions through a combination of decreased costs and increased value, making it an important part of institutional strategy.