



Achieving Alignment Through Strategic Information Technology Management at The University of Memphis

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The mission of the EDUCAUSE Center for Applied Research is to foster better decision making by conducting and disseminating research and analysis about the role and implications of information technology in higher education. ECAR will systematically address many of the challenges brought more sharply into focus by information technologies.

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Preface

The EDUCAUSE Center for Applied Research (ECAR) produces research to promote effective decisions regarding the selection, development, deployment, management, socialization, and use of information technologies in higher education. ECAR research includes

- ◆ research bulletins—short summary analyses of key information technology (IT) issues;
- ◆ research studies—in-depth applied research on complex and consequential technologies and practices; and
- ◆ case studies—institution-specific reports designed to exemplify important themes, trends, and experiences in the management of IT investments and activities.

In its most recent research, ECAR will publish a comprehensive gathering of information in *Information Technology Alignment in Higher Education*.¹ It was undertaken in the phases described below.

Literature Review

A review of the relevant literature helped us define the study's major elements and create a working set of hypotheses.

Online Survey

The EDUCAUSE staff sent an e-mail invitation with the Web address of an online survey to 1,483 EDUCAUSE member institutions. Senior college and university administrators from 483 institutions (464 U.S. and 19 Canadian) responded to the survey. The majority of respondents were chief information officers (CIOs) and other IT leaders. The 483 responses were used as the respondent base for *Information Technology Alignment in Higher Education*.

Telephone Interviews

Researchers conducted intensive telephone interviews with 22 IT executives, managers, and faculty members at 22 institutions.

Case Studies

Researchers conducted this in-depth case study to complement the core study. We assume readers of this case study will also read the primary study, which provides a general context for the individual case study findings. We undertook this case study to examine the structured approach to governance, strategic planning, and performance management that characterizes the leadership methods of The University of Memphis.

Introduction

IT leaders face many challenges during their tenure. Fractured stakeholder relations, unclear governance, low morale, insufficient resources, and unclear strategic direction are just some of the issues that challenge leaders, and CIOs often must confront one or more of these issues simultaneously. But how often does a CIO need to confront all of them at the same time? What if you were also the first CIO the institution ever had? That's the challenge Jim Penrod faced when he became the first CIO at The University of Memphis in 1995.

Today, the university has highly structured governance practices, a spirit of collaboration between its information systems (IS) organization and its stakeholders, and significantly improved productivity. But that was not true in 1995. At that time, IT was not a strategic asset of the institution. Memphis lagged behind its peer institutions in IT investment and capability. The campus technology literacy was low and not sufficient to support the president's strategic vision. There was not a process to prioritize and coordinate technology investment decisions. Finally, there was not a great deal of collaboration between end users and IS staff.

This case study examines the structures and processes that the university put in place to transform its IT organization. The case looks at the four pillars of Memphis's transformation:

- ◆ governance,
- ◆ planning,
- ◆ performance management, and
- ◆ metrics.

The case looks at each element of leadership and explores how and why it was implemented. It also explores the lessons learned that can be carried to other institutions.

Background

The University of Memphis is the largest campus within the Tennessee Board of Regents System. The university is a metropolitan,

doctoral institution. It comprises nine colleges, employs 2,400 faculty and staff, and has an annual operating budget of approximately \$250 million.

In 1991, the university's new president recognized that technology was becoming a critical support element to the university's overall strategic plan. The president determined that Memphis was not prepared to effectively use technology and the IS organization was not positioned to lead. At the time, Memphis had no CIO. The library had developed its own IT organization. The division of finance and administration had responsibility for operating the campus business systems and telecommunications, and a central IS organization was responsible for operating the campus network.

In 1995, the university decided to hire its first vice president/CIO to lead a newly created IT organization. The new organization brought together several different organizations that had previously reported to the vice president for business and finance or the provost. The VP/CIO position was created as a direct report to the president.

The Challenge

The Memphis VP/CIO's challenge in 1995 was both managerial and operational. Managerially, the priorities were to

- ◆ bring the previously separate IS units into a single organization,
- ◆ raise the performance of all the IS staff,
- ◆ build trust and a spirit of collaboration with major stakeholders on campus, and
- ◆ create a strategy for technology.

Operationally, the organization needed to deal immediately with three priorities:

- ◆ completing the campus network,
- ◆ implementing new administrative information systems, and
- ◆ building out the campus academic computing infrastructure, including student labs, classrooms, and academic technology

support personnel.

The central leadership challenge was that the managerial and operational issues had to be addressed simultaneously. To support its institutional strategy, Memphis needed to immediately begin improving its technology infrastructure and services. There was not sufficient time to first raise the organizational capability and then pursue large-scale technology projects—both would have to happen together. At the same time, the VP/CIO had to define his new position, establish its authority, and integrate the role into Memphis's power structures.

Every leader brings a unique style and approach to an organization. Differences in experience and personality significantly shape leadership styles. But beyond style differences, a leader must decide on a strategy to transform an organization and confront questions of strategy that transcend personality and style. Some questions naturally evolve:

- ◆ To what extent will I need to change the people to change the organization?
- ◆ Do I need to do something dramatic early in my tenure to get the organization's attention?
- ◆ Should I challenge the existing culture or adapt to it?
- ◆ Do I need to work around the existing organization to accomplish anything, or can I change the organization and the operations at the same time?
- ◆ How will my changes threaten stakeholders in the institution?
- ◆ Where will I encounter resistance?

For Memphis's first CIO and his team the answer was clear: The only way to transform the IS organization was to focus on rebuilding the organization's fundamental elements. As Jim Penrod explained, "To have a sustainable change, we needed to systematically implement a new approach to governance, planning, performance management, and measurement." He approached the challenge

of changing IS at Memphis by combining his own experience as a CIO with the theories of organizational leadership embodied in the leadership research of scholars such as Peter Drucker, Chris Arygris, Gerhard Gruber, and Peter Senge.

Transforming IS

The staff within and outside of the technology organization identified four strategies they believe are central to the transformation of IS:

- ◆ instituting a model of collaborative governance,
- ◆ implementing an annual planning process,
- ◆ becoming a learning organization, and
- ◆ implementing metrics to evaluate progress.

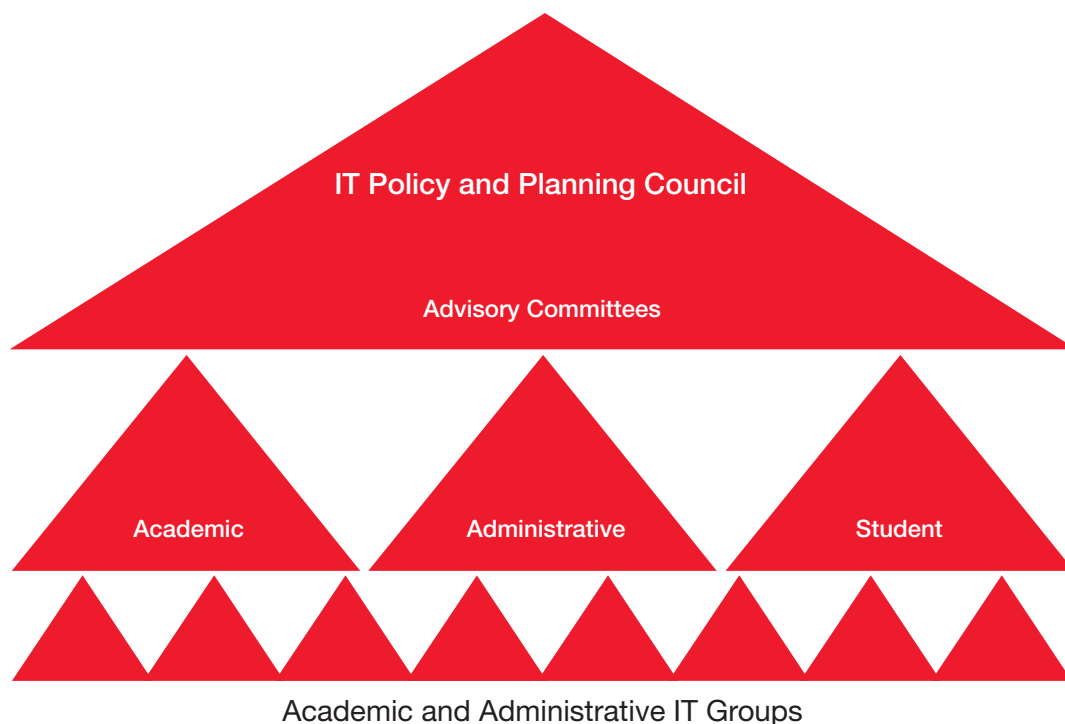
Memphis views these strategies as works in progress and feels it has been more successful at some than others. Participants continuously fine-tune their approach. The remainder of this section examines each strategy in detail and explores what Memphis has done and what has been learned.

Collaborative Governance for Technology

Among the first actions Memphis took was to create a governance model for technology. The model's goal was to promote effective communication among all IT stakeholders including deans, vice presidents, faculty, students, and staff. It was particularly important that the governance model signal that the new VP/CIO position was not being created to centralize all IT decision making but rather to coordinate more effective decision making guided by institutional IT priorities. Figure 1 shows the three major components of Memphis's IT governance model:

- ◆ the IT Policy and Planning Council,
- ◆ advisory committees, and
- ◆ working committees.

Figure 1. University of Memphis Information Technology Governance Structure



Source: University of Memphis

IT Policy and Planning Council

The council advises the CIO and the university president on IT policy adoption, strategic priorities, and other major decisions. It comprises the university's provost, vice presidents, and deans and engages in issues ranging from Memphis's IT security policy to the approval of its multiyear and annual IT plans.

Advisory Committees

Three advisory committees each focus on a different aspect of technology. The administrative advisory committee looks at issues relating to Memphis's business systems. The academic advisory committee is concerned with all technologies supporting research and instruction. The student advisory committee manages issues related to technology services to graduate and undergraduate students. Each group advises the CIO on major policy and service decisions in its focus area. These recommendations are elevated to the Policy and Planning Council, the CIO, and the

president for ratification. Each group is also responsible for reviewing its relevant portion of the annual IT plan. In addition, the deans academic advisory group is responsible for prioritizing initiatives funded by the annual technology access fee that Memphis charges its students.

All advisory committees have important communications roles. They are charged with informing their part of the university about the status of IT initiatives, policies, and programs and bringing feedback to the IS organization. The advisory committee members are drawn from the areas they represent. Each group's chair also serves on the Policy and Planning Council.

Working Committees

Unlike the council and advisory committees, the working groups are not permanent parts of the governance structure; they are ad hoc teams formed to look at particular issues in depth. Recently, Memphis formed ad

hoc working committees to look at electronic communications, library technology, Web technologies, and data stewardship.

This type of committee structure resembles that found at many institutions. What makes Memphis's structure unique is how active each group is and the institution's commitment to empowering the committees to shape IT decisions. The committees have served as more than just information conduits or sounding boards for the CIO to test and refine ideas. Although they play these roles, they have also been intimately involved in decision making.

Effectiveness of Collaborative Governance

Funding played a central role in building support for the governance structure. At first, administrators, deans, and faculty members were skeptical about investing the time that the governance structure required. Although they appreciated the outreach, they were skeptical of how much authority the committees would have. None wanted to play the role of "rubber stamp." To counter this perception (and to improve decision making), Memphis decided to link the committee structure to resource allocation decisions. This had three impacts:

- ◆ committee members knew the committee's work was significant,
- ◆ resource allocation priorities were linked closely to discussions of strategy, and
- ◆ IS created a clear opportunity for individual committee members to benefit from their participation because they would be in the room to influence resource distribution.

The committees are also integrally involved in planning and budgeting. Each committee collaborates with IS to craft relevant portions of the annual IT plan and approves the IT funding requests. The result of this degree of participation has been increased support for IT funding needs. While Memphis is not immune to questions about the rising cost of

IT, these questions arise less frequently there than they do on other campuses.

Memphis made an important decision to delegate the authority to recommend priorities for initiatives funded by the institution's technology access fee. This fee, charged to all students, had significantly increased in recent years to provide the resources Memphis needed to upgrade its learning technologies. Each year, the deans advisory group prioritizes projects and initiatives and recommends the support levels for those that support direct instruction.

This has had two effects. First, it demonstrated the commitment to shared IT governance. The president could have delegated authority for these funds' use to the CIO alone. Second, it encouraged the academic deans to work collaboratively to raise the entire institution's technology capability. Priority was given to investments that would benefit all of Memphis's faculty and students.

This has created significant trust between the campus and the IS organization. Although committees and their stakeholders do not always agree with everything IS does, they are confident that they will have the opportunity to share their perspective and understand the decisions made. The result is a remarkable degree of collaboration, explained John Evans, current chair of the academic advisory committee. "The attitude between the university and IS used to be one of us and them. Now, there is only us."

The committee structure should not be interpreted as the CIO's or IS organization's abdication of authority. The committees do make decisions and recommendations. However, the CIO and his team proactively frame each issue and decision, and communicate aggressively to ensure the issues are well understood and the committees are prepared to give them good advice. As a result, the committees and the IS leadership are rarely at odds.

Similarly, the committees' roles do not extend to day-to-day decision making. That is the purview of the CIO and management. The system works today because the committees trust that IS will seek their input on major decisions. It also has fostered a discipline within IS to constantly stay in touch with their customers through these committees. If committees weren't willing to trust IS to bring them the right issues, or if IS didn't lay the groundwork for key decisions, the shared governance would not work.

Managing such an active committee structure creates a significant workload for the IS organization, which constantly reaches out to these stakeholders to ensure issues and decisions are appropriately framed and communicated. The organization believes it has been more than worth the effort. Jim Penrod views the time spent as "an up-front investment of time that pays off in lowering the resistance to change." Penrod feels that if Memphis did not spend the time working with its different governance bodies, it would spend an equal or greater amount of time dealing with backlash to IS decisions.

IT Planning

The second component of IS transformation was the institution of a rigorous annual planning process. Memphis follows a formal strategic planning methodology of six phases.

- ◆ *Plan to plan* describes the planning process and establishes roles and responsibilities for planning.
- ◆ *Defining institutional strategy* prepares an assessment of the internal and external environment, including political, legal, demographic, and technological trends. These factors, plus the organizational values and culture, inform the development of the plan's mission and vision portions.
- ◆ *Alignment* considers the changes needed to all supporting systems to align with the

strategy. The process looks broadly at supporting systems, including organizational and people management processes as well as the institution's technical tools and infrastructure.

- ◆ *Competencies and behaviors* examines whether individual managers and units responsible for implementing the plan have the right skills and resources.
- ◆ *Action plans* develops the implementation plans for major strategic initiatives.
- ◆ *Evaluation and assessment* involves measuring accomplishment. Assessment is performed at the organization, team, and individual levels and occurs throughout the implementation process.

The planning process, depicted in Figure 2, takes most of the academic year to execute and engages all academic and administrative units in a discussion of their technology needs and priorities. It defines both long-term goals and annual objectives and activities.

A critical aspect of the planning process is an annual face-to-face meeting between IS managers and individual units' leadership. These structured discussions review the progress made on the prior year's priorities, identify emerging needs, and establish joint commitments between the IS organization and the units for the coming year. Finally, the plans that emerge are vetted with the relevant advisory committees and the policy council.

A unique aspect of Memphis's planning process is that it produces a strategic plan and budget that reflect not just central IT priorities but all priorities and needs. The IS organization manages the IT plan, but it includes all units' IT needs and funding requirements. The result is that the IS organization has an opportunity to influence the decision making and collaborate with the individual colleges and major administrative units. It also helps the central organization ensure its own priorities are aligned with its clients' priorities.

Through the planning process, Memphis

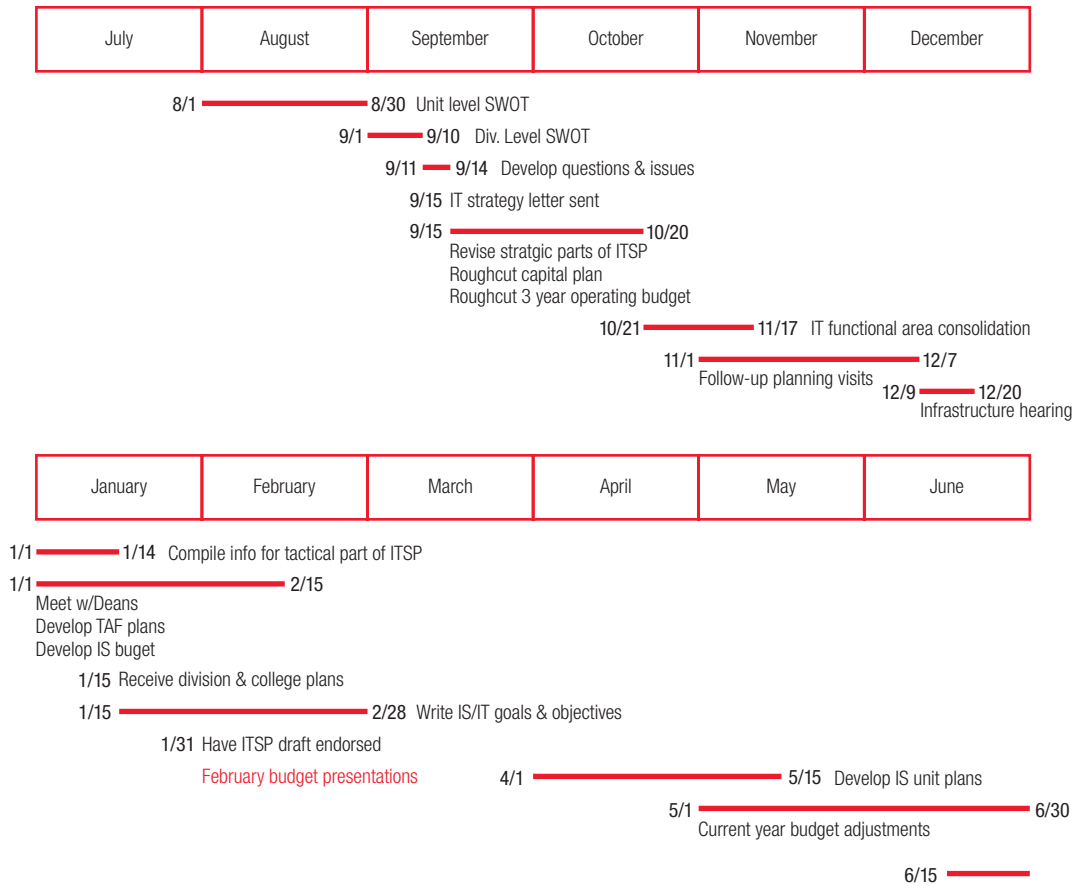


Figure 2. Annual Planning Calendar

Source: University of Memphis
 Note: In Figure 2, SWOT refers to Strengths, Weaknesses, Opportunities, and Threats; TAF refers to Technology Access Funds; and ITSP refers to Information Technology Strategic Plan

feels it has struck a good balance between centralization and decentralization. Individual colleges preserve their ability to set their own priorities, and the central IS organization is assured of its opportunity to advise its customers as they set those priorities. The institution creates a single IT plan and budget that gives it visibility into its technology investments and associated impact. It is a model, however, that would be difficult to execute without a strong foundation of trust between IS and its clients.

Effectiveness of IT Planning

First and foremost, the Memphis planning process supports two-way communication be-

tween IS and the major campus units. With no history of a strong central IT function or a senior IT leader, it was important that these lines of communication be established. The planning process and governance structure reinforced that the CIO position was one of collaboration. The value of the planning process is that it has created a discipline that drives frequent conversations between IS and users. While many institutions convene similar dialogues, the Memphis approach includes all parts of the institution, not just the areas that work most actively with IS. This provides a forum that continuously leads the campus to think broadly about the uses of technology.

The planning process also enforces a discipline of preparation. IS sends structured

planning questions to units to guide them in developing their local IT priorities. Meetings between IS and the units follow a common agenda and question set. In this way, the process supports specific conversations about future IT priorities as well as a structured review of the prior year's accomplishments. It provides a forum for IS to receive feedback, resolve issues, and discuss any differences in how the two parties view IT priorities.

Planning also provides IS with an opportunity to lead. The meetings and exchanges embedded in the planning process enable IS staff to engage academic and administrative units in discussions about how they use technology. Memphis's IS staff believe this gives them a strong opportunity to engage constituents in discussions about the value of technology.

There is a real danger, though, that these conversations could grow perfunctory. Without significant preparation, the conversations become superficial. Memphis deans and vice presidents with a technology-focused staff person in their area seem to do better than those without such a person. Units with local technology leaders will more likely distribute the planning process within their own organization. Units without this focused effort will be challenged to find ways to embed technology in their own strategies.

Memphis also dedicates significant staff time to facilitating the planning process. The IS organization has a full-time staff person assigned to managing the process, which includes setting the planning calendar, preparing planning materials, and facilitating strategic plan development. She also plays a significant role in helping the CIO monitor the plan's implementation during the year. By dedicating a person to lead the planning process, IS acknowledged its importance and the amount of work it requires.

Learning Organization

One of the IS organization's proudest accomplishments is that its work has grown eightfold while staff size has stayed about the same. While this productivity gain is significant, it is even more impressive that it has been accomplished with largely the same people. IS staff members, once viewed as providing meager service and lacking understanding of campus technology needs, are now viewed as effective advisors and service providers. Memphis accomplished this without a large influx of new staff.

To transform its workforce, the IS organization set out to become a learning organization as Peter Senge defined it.² This effort has been, as IS Associate Vice President John Wasileski described, "the hardest and most worthwhile part of the transformation."

Penrod explained that he felt he needed to do something dramatic to change the organization because he had to get the staff to understand that "more was expected from them and that they were going to have the authority to do more." The staff had grown used to not being empowered and, as a result, had become discouraged and lacked motivation.

The first step in the organizational transformation was to engage all IS staff in developing the organization's values. The values statement they developed (see the sidebar) continues to guide the organization today. In addition to the values statement, other organizational strategies have included

- ◆ retooling staff skills and reassigning staff to jobs best matched to their skills,
- ◆ new rewards and recognition programs,
- ◆ self-directed work teams, and
- ◆ commitment to continuous learning.

Retooling and Redeployment

The IS organization sets aside substantial

resources each year for staff training and expects managers and staff to continuously update their knowledge and skills. In addition, it strives to place staff in the jobs best suited to their skills.

Rewards Program

As a public university, Memphis must conform to state compensation and performance evaluation frameworks. However, within these constraints it has been able to introduce a new reward system, raising all staff compensation levels to be more competitive with local salary structures. The organization has also designed a recognition system for teams and staff members who exhibit exemplary performance, delivering the rewards at the time they are earned. Although modest, these rewards serve to acknowledge strong performance and to celebrate the organization's overall accomplishments.

Self-Directed Teams

This has proven the most challenging aspect of Memphis's efforts to transform its IS organization. Memphis has used self-directed teams both to perform projects and to manage some ongoing operations. The challenge has been to define manager and team roles in the organization. Some teams have done well and can make decisions and resolve issues on their own; others remain comfortable in a more traditional hierarchical organization.

Despite the struggle to implement teams, many feel the organization has changed significantly—for example, limiting unnecessary bureaucracy and producing a more proactive staff that feels more empowered to solve problems. Steve Terry, director of administrative computing, said, "Now staff understand that we may not always agree with their recommendation, but it is not acceptable for them to not have one."

Value Statements of Division of Information Systems

We believe:

- ◆ Our first priority is support of the university's mission.
- ◆ Our clients are our partners in success.
- ◆ We believe that competent teamwork is a key to success in all [Information Technology Division] endeavors.
- ◆ We accept responsibility for our work.
- ◆ We will attempt to secure trust through openness and integrity.
- ◆ Every day, we will try to listen with an open mind, speak from a sincere heart, and educate in the spirit of cooperation.
- ◆ We strive to respect people, their ideas, and their accomplishments.
- ◆ We endeavor to learn from both successes and mistakes.
- ◆ Our organization and each of its individuals are reflections of one another.
- ◆ Our aim is to provide a working environment that fosters professional development.
- ◆ We will strive to recognize and reward self-improvement, innovation, and individual achievement.
- ◆ We are committed to understanding and adjusting to the changing needs of the university.
- ◆ We are dedicated to working with the university community to provide a progressive IT environment

Continuous Learning

Memphis expects all IS staff members to continuously upgrade and refresh their skills. The organization provides sufficient funding to support three professional development opportunities per year for every staff member. It also makes seminars and mentoring programs available to all staff.

Effectiveness of Becoming a Learning Organization

The transformation to a learning organization has been a long-term proposition. IS leadership knew it would be the longest and hardest component of their strategy. The

degree of empowerment provided to staff has been threatening to some, disorienting to others, and challenging to all.

Despite the challenges, Memphis has produced a noticeable change in its staff's capability and performance, confirmed through client satisfaction surveys and staff evaluation data. The leadership has committed to a culture of skill-building, inquiry, and common sense. The staff knows much is expected from them and that they will be provided with adequate training and fair compensation. This is a departure from the past and has done much to build staff morale.

Although Memphis has had great success promoting teamwork, the concept of organizing around self-directed teams has proven more elusive. Teams continue to work well as an organizing concept for projects but present more of a challenge for managing operations. As in many organizations, the notion of a self-directed team seems the hardest to implement. Portions of the staff still seem more comfortable with traditional hierarchical organizational structures that produce a clear picture of authority and accountability. Overall, three organizational changes have had the greatest impact:

- ◆ leadership,
- ◆ rewards and recognition, and
- ◆ skill alignment.

Leadership's emphasis on a new philosophy and the commitment to change the culture has had a tremendous influence. The management team committed to being visible and active in discussing the changes they wished to bring about. Without what Jim Penrod described as "leadership by example," no structural or cultural changes would have taken hold. Through meetings, seminars, and training sessions, the leaders took every opportunity to describe the culture they were creating. Most important, the leaders not only talked about changes, but they also made very visible changes to show the organization that they were serious.

First, they crafted a business case that enabled the organization to bring its staff salaries in line with the local market. This signaled to the staff that the leadership recognized their contribution and also served to renew the "contract" between employer and employee. This fresh start put Memphis in a strong position to expect more from its staff.

Second, they placed design of the rewards program and values statement in the staff's hands. Management provided guidelines, but staff were empowered to create. This mirrored how the new CIO expected the organization to deliver its projects and services.

Finally, the leaders demonstrated a tangible commitment to putting people with the right skills in the right roles. Some of the staff were reassigned to new duties. Notably, a number of administrative staff positions were redeployed to support academic technology. Other staff were retrained, and some were counseled out of the organization. This reinforced the notion that Memphis expected performance but was willing to provide staff the tools they needed.

Metrics

To measure progress, Memphis has incorporated an active measurement program that uses client satisfaction surveys, workload and productivity measures, and cost data. Despite this program, Memphis feels this area has the most room for improvement. The struggle has been to design a set of metrics that evaluate the IS organization's impact on the institution. Most of their measures have examined volumes of work such as number of computer labs or number of network accounts.

Memphis's annual report to the university community discusses its major accomplishments and progress for the year. This companion piece to the strategic plan commits the organization to a set of objectives. Each annual report includes a series of data charts that report five-year trend data on key metrics. Measurement categories include

- ◆ technology access fee expenditures;
- ◆ growth in computer labs, training center, and help desk volumes;
- ◆ administrative systems project volumes; and
- ◆ infrastructure growth.

Tables 1, 2, and 3 show sample metrics.

Memphis also instituted an ombudsperson program to help resolve issues not addressed by the normal management processes. The CIO appoints two individuals to serve

Table 1. End-User Support Metrics (Source: Information Systems 2001–2002 Annual Report, University of Memphis)

Resource	FY98	FY99	FY00	FY01	FY02
TigerLan Labs*	21	32	36	40	39
Total TigerLan CPUs (x 1,000)	38,484	188,115	453,968	618,881	928,451
Training Center Attendees	4,100	7,667	7,331	6,679	8,086
Help Desk Contacts (x 1,000)	28.0	43.0	34.0	37.6	59.9
Computer-Based Training Students	–	–	–	–	590

Table 2. Allocation of Student Technology Access Fees (Source: Information Systems 2001–2002 Annual Report, University of Memphis)

Resource	FY98	FY99	FY00	FY01	FY02
Lab Staffing	–	\$307,971	\$401,318	\$543,796	\$558,112
Academic Labs	\$1,395,921	\$1,148,432	\$1,828,999	\$1,247,819	\$1,554,352
Infrastructure	\$126,821	\$31,370	\$45,709	\$357,971	\$40,390
Infrastructure Grants	\$100,000	\$87,034	\$80,862	\$80,862	\$56,450
Software Licenses	–	\$278,034	\$531,102	\$312,852	\$555,799
Smart Classrooms	–	\$135,329	\$577,562	\$388,791	\$73,313
Library	–	\$9,920	\$68,460	\$94,608	\$249,844
Internet2 and Special Projects	–	\$56,000	\$275,000	\$559,750	\$435,553
Lab Improvements	–	–	\$300,830	\$177,776	\$737,835
Total	1,622,742	2,054,090	4,109,842	3,764,225	4,261,648

* TigerLan Labs are student computer labs.

Table 3. Other IT Metrics (Source: Information Systems 2001–2002 Annual Report, University of Memphis)

Resource	FY98	FY99	FY00	FY01	FY02
IS FTE	91.5	94.5	96.5	98.5	99.5
Objectives Met (Percentage)	>93	>97	>97	>96	>97
Distributed IT Personnel	50	55	60	60	62
Servers Supported	42	45	60	70	70
Cluster Up Time (Percentage)	99.70	99.51	99.99	98.49	99.62
Disk Space (Terabytes Supported)	0.350	0.400	0.525	1.000	3.000
Dial-In Ports	144	138	184	192	192
External Phone Calls (x 1,000)	3,467	3,991	4,315	4,091	4,046
Switchboard-Routed Calls (x 1,000)	250	270	249	>254	>252
Phones	6,536	6,345	6,154	6,203	6,191
Voicemail Boxes	2,195	2,212	2,218	2,814	3,060
Data Drops	4,000	4,286	6,810	7,250	9,900
Internet Traffic (Terabytes)	4.174	5.832	12.138	25.910	104.300

two-year terms. The two IS ombudspersons serve the internal and external organization and offer stakeholders additional assurance that they can get their issues heard and addressed.

Effectiveness of Metrics

In many ways, the IS organization's commitment to openness and evaluation is as important as what it measures. IS has committed not only to continuously evaluating its performance but also to sharing those measures with the campus community. It updates the campus on its own performance through both an annual report and the planning process. The annual report communicates how the organization performs against a set of common measures, and it discloses how the IS organization allocated funds for the year and

its performance against budget. The planning process communicates how well IS achieved the prior year's goals.

This commitment to openness and accountability has helped build a reservoir of trust on campus. While things may not always go well, the IS organization's customers have confidence that problems will be acknowledged and steps taken to fix them. This has given Memphis a more patient and trusting customer base.

Customer satisfaction and workload measures are useful but provide little insight into the organization's effectiveness. Nor do they indicate the value the institution receives from its technology investment. Memphis plans to continue efforts to develop more-informative metrics.

Lessons Learned

Memphis has learned much over its eight-year transformation. First, a transformation of this magnitude can take five to eight years. Building trust, empowering staff, and improving productivity are long-term goals. It has taken the organization many years to both refine its leadership strategies and see their impacts. Other broad lessons have also emerged.

Importance of Executive Sponsorship

In 1991, Memphis's president recognized the need for change and created the CIO position. His continued sponsorship and support (and that of Memphis's current president) was critical. Without it, instituting the highly participative governance structure and planning processes would have proven difficult.

Leading by Example

The organizational transformation Memphis has accomplished would not have occurred without the active leadership of the CIO and his key managers. Investments in training, commitment to teaming, and new reward programs would not have proven as effective without the leadership's actively walking around and communicating with staff. Leaders needed to continuously stress the organization's values and describe to staff what they expected from them and how they would support them. Similarly, they had to be visible and engaged with the campus community to build trust and understanding.

Commitment to Openness

Memphis encountered many hurdles along the way. The leadership team realized early that they had to be open about what was working and what wasn't. This brought them honest feedback that ultimately helped to improve their programs. Also, maintaining a dialogue with staff helped lower their natural fear of change.

Applicability to Other Institutions

The Memphis leadership strategy is based on a highly structured approach to planning, governance, organizational change, and measurement. Memphis took a set of management and leadership theories from academic research and tailored them to their institution's unique practices. Although the particular methods Memphis employed may not work for every institution or fit every CIO's leadership style, several universal principles underlie Memphis's leadership strategy.

Participative Governance

The committee structure and degree of committee-based decision making employed at Memphis may not work for all institutions. However, the underlying value of participation by key stakeholders in decision making is critical to building trust and lowering resistance to change. IT organizations need to find ways to give their stakeholders an opportunity to contribute to and shape IT decision making.

Transparency and Accountability

Through its planning process, measurement, and annual report, Memphis's IS organization indicates its willingness to be held accountable for its performance. Every IT organization can benefit from finding ways to communicate issues, progress, and performance more openly. Fostering a culture of transparency and openness will encourage both IT staff and customers to engage more collaboratively to solve problems.

Joint Planning

Memphis's particular planning approach might not be suitable for all, but its commitment to joint planning is a principle that all organizations can follow. Designing methods to align central IT plans with unit IT plans is

critical, especially as resources grow increasingly constrained.

Commitment to Staff Development

IT organizations not prepared to commit to becoming a learning organization can still benefit by embracing some of the underlying values of Memphis's IT organization. These include

- ◆ emphasizing empowerment,
- ◆ designing reward programs that acknowledge team and individual success,
- ◆ investing in skill-building,
- ◆ conducting regular performance reviews and performance planning, and
- ◆ eliminating unnecessary bureaucracy and hierarchy.

Memphis Today

Memphis is currently embarking on a transformation. Much has been accomplished in the last 10 years: service levels are noticeably better, the IS organization is more productive, and IS and its customers collaborate effectively. The organization has also addressed many of the operational issues it faced in 1995. Today, however, Memphis faces new challenges and priorities. Research computing investment needs have increased, and the campus will soon implement a new enterprise resource planning system as part of a Tennessee Board of Regents project. New policies are being crafted to secure the campus network.

Perhaps most critical, like all of higher education Memphis faces severe financial shortfalls. State budget cuts are causing the organization to set sharper priorities and find more ways to gain efficiency. The planning processes and governance structures that worked well during relatively strong financial conditions must now adapt to times of se-

vere constraint. The planning processes will be challenged to articulate priorities, and the governance committees will be challenged to choose what gets funded. Some on campus wonder if shared governance can work as well in a time of declining resources. These individuals feel that it is inevitable that individual leaders (primarily the CIO and the president) will have to make the tough choices. Others believe that participative governance can work as well today as it has in the past. Rather than slowing decision making, they believe, broad participation will provide the opportunity to make tough choices with greater campus acceptance. Only time will tell.

In addition to new challenges, Memphis has new IT leadership. In 2003, Jim Penrod announced his retirement, and Doug Hurley became Memphis's second CIO. Hurley described his decision to come to the university as an "opportunity to make a strong organization stronger." A new CIO's arrival brings expectations of continued refinements to the governance, planning, and other management strategies. As Penrod explained, "It is only natural that Doug will bring his own new ideas and put his own stamp on the organization."

Although the specific changes to be made are still evolving, many people are confident that the university will continue to adhere to the principles of collaboration, transparency, accountability, empowerment, and staff development.

Endnotes

1. B. Albrecht et al., *Information Technology Alignment in Higher Education* (Boulder, Colo.: EDUCAUSE Center for Applied Research, Research Study, Vol. 3, 2004), publication scheduled for summer 2004, <http://www.educause.edu/ir/library/pdf/ecar_sors/ers0403/>.
2. M. K. Smith, "Peter Senge and the Learning Organization," *The Encyclopedia of Informal Education*, <<http://www.infed.org/thinkers/senge.htm>>.