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Increasing IT Value for Customers: A Challenge for Higher Education

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Decades ago, college and university central data processing centers provided most, if not all, computing support to faculty, staff, and students, and data processing staff in those centers made most of the decisions—driven by vendor hardware—about the software, processes, and standards available to campus clients. Individual computer users had few, if any, affordable options for computing automation. Today, a tremendous amount of computing power and an almost unlimited number of computing options are available to clients right at their desktops. Information technology (IT) in academic institutions has become more and more decentralized as individual departments or units gain greater control over their IT choices. Central IT organizations are no longer valued simply because they provide service. Clients are much more concerned with which services the central IT organization provides; how well it provides those services; and how those services fit with their unique education, research, or business needs. In this context, academic IT organizations have a constant struggle to maintain their relevance and provide value to their clients and their institutions.

Over the past six months, the authors grappled with the topic of client value in higher education IT organizations. The concept of value proved to be a challenging concept. What is of value? How is it recognized? How is it delivered? Building on the framework of the three value propositions found in successful IT organizations, as described in *The Discipline of Market Leaders* by Michael Treacy and Fred Wiersema,¹ the group identified a modified set of three value propositions that seemed better suited to the specific requirements and culture of IT organizations in higher education institutions. These value propositions formed the basis of our research.

This research bulletin strives to answer the question, What must a central IT organization in an academic environment do to increase its value to its clients and its institution? It is not a cookbook for how to create a successful IT organization, but rather a discussion of considerations for increasing value. Treacy and Wiersema² suggest that successful IT organizations choose to focus almost exclusively on one value proposition from among these three: product leadership, operational excellence, and customer intimacy. While these three areas offered us a good starting point, our research suggested that a single focus was less applicable for a central IT organization in higher education. Rather, we discovered that a combination of slightly modified propositions is more suited to the academic environment: operational excellence, organizational management, and client partnership. We concluded that an organization that excels in these three areas will be highly valued by the people who use its services. In this way, IT can make a dramatic shift from being regarded on campus as an expense that needs to be controlled to being viewed as a strategic partner in addressing and solving academic and business problems.

In considering how to address each area, we felt that operational excellence, by providing attention to the principles of consistency, reliability, and performance measurement, is the foundation on which the other two pieces are built. Concurrent with establishing a base of strong core services, effective IT organizations devote significant

time and attention to organizational management by developing a culture of service, excellent communication, and project management processes. Finally, tipping the balance between having an IT organization that is good and one that is valued is client partnership with its focus on strong relationships and effective governance.

Highlights of Delivering Increased Value to IT Clients

[A]pproximately 80 percent of unplanned downtime is caused by people and process issues, while the remainder is caused by technology failures and disasters.³

Delivering value to IT clients is a function of understanding—and delivering—operational excellence, organizational management, and client partnership.

Operational Excellence

Operational excellence can be defined as consistently doing the right things well. There is an inherent tension in the IT industry—a need to strike a balance between keeping up with ever-evolving technology and ensuring that all services provided to customers operate predictably. In essence, predictability is about sameness, having services available and behaving as people expect (as they did yesterday). Technology, however, is about change and is, by definition, unpredictable. Unfortunately, a 2004 Gartner survey⁴ reports that many executives see IT as a major barrier to change—more than any other factor except corporate culture—and they underestimate its inherent value. Operational excellence is a means of striking that balance so that changes are seamless, services are predictable and can be depended on, and the value of IT to its customers is clearly recognized.

Operational Processes and Excellence

Many processes combined provide operational excellence. Some are considered traditional parts of operations but must be addressed in order to provide operational excellence. IT operational processes include

- business continuity and disaster recovery;
- change, configuration, inventory, asset, and service request management;
- infrastructure and application management;
- production acceptance, production control, quality assurance, and release management;
- storage, tape, and output management;
- systems and network monitoring, capacity planning, and performance measurement; and
- workload management and job scheduling.

The processes that support operational excellence include

- database management, database administration, and middleware management;
- business relationship management and service-level management;
- cost recovery and budget management;
- hardware and software support;
- service desk, problem management, and knowledge management;
- vendor, negotiation, and contract management; and
- Web services management.

Seen under this umbrella, achieving operational excellence can seem like a huge undertaking. Starting small can produce the best results. Each organization already has processes in place that enable service delivery. Often, providing operational excellence is not about developing new processes, but rather documenting and fine-tuning existing ones and then compiling them into an operational framework based on a best practice such as the Information Technology Infrastructure Library (ITIL). Providing operational excellence is seeing that supporting a service is a series of interdependent processes rather than functions delivered in technological silos. It is about clearly stating “this is what we do and how we do it.”

Following are a few easy steps for moving toward operational excellence:

- *Document process flow.* It is easier to change processes when they are documented and understood by all staff. A lack of process creates a culture of heroes: when something goes wrong or something new comes along, someone steps up to save the day. Organizations don’t need heroes; they need processes.
- *Identify skills required of staff.* It is becoming increasingly important to have a good team and the right people in operations. Continued institutional commitment is necessary to keep knowledgeable staff in the operations area.
- *Automate routine aspects of the job.* Since consistent process execution and maximization of resources is very important, automation becomes crucial. Automation can ultimately free operational staff to work on resolving more complex issues without involving senior technical staff.
- *Improve processes.* Once documented, operational processes should be reviewed against actual performance. Eliminating human failure, frequent hand-offs, and bottlenecks needs to be a stated goal and addressed on a consistent basis. Postincident reviews can be an invaluable tool.
- *Define best practices.* It must be clear to the operational team what the organization as a whole expects and how performance will be measured. The ultimate goal of service delivery, as well as a definition of each team member’s

role, must be clear to all. Success in this area relies heavily on effective team effort.

IT departments must strike a balance between expanding services while reducing operational costs. By decreasing the amount of time and investment spent on operations management, IT organizations can begin to align their activities with the needs of the institution. Operational excellence calls for more than subject matter expertise and a talented internal team. It requires a deep commitment and a culture of continuous improvement.

Measuring Results: Metrics and Service Level Agreements

As everyone knows, you can't manage what you don't measure. Inherent in the move toward operational excellence is the need to measure performance, capacity, and results. Two commonly used practices that accomplish this goal are the development of metrics and service level agreements (SLAs). Both provide invaluable data that IT departments can use to evaluate how well they are meeting the needs of their clients.

It is critical to ensure that the numbers tell a meaningful story by defining what is significant to the success of the operation, gathering that data routinely, reporting it in a consistent manner, and, most importantly, using the data as a measure of the organization's current performance, as well as a guide to setting goals for enhanced performance. Several methodologies exist for tracking performance; some of the most respected include the balanced scorecard and the executive dashboard.

SLAs allow IT organizations to manage the expectations of their customers. They result in a shared understanding of the definition of the service and its priority within the organization. They also make it easy to measure the effectiveness of key IT services, and they help prevent conflicts by ensuring the client and service provider assumptions are documented. Well-defined SLAs can be used as a communication tool between IT organizations and clients.

An effective SLA must include

- a list of the services provided;
- timeframes within which services will be provided;
- escalation procedures;
- conditions of service availability;
- the responsibilities of both the IT organization and the client;
- a means of tracking service effectiveness;
- a timetable for periodic review of the SLA;
- avenues for service-related problem resolution; and
- a schedule of reports on service effectiveness.

When carefully crafted and periodically reviewed by both parties, SLAs are a means of providing increased value to IT clients.

Service Uniformity

Having a consistent “look and feel” to service offerings is of key importance to providing greater value to customers. This can be referred to as the “McDonald’s-ization” of IT, in which much attention is paid to maintaining quality, efficiency, and value of IT services and care is taken to deliver these services in such a way that they are easily identifiable as coming from IT.

It is also advisable to develop a catalog of IT services. Such a catalog gives clear definitions of services, including SLAs, and can provide descriptions of hardware specifications and software versions, as well as performance and usage statistics.

Consistency Equals Efficiency

As IT organizations have reached maturity over the past few decades, the services they provide are more often viewed as a valued, yet almost invisible, part of the work landscape. An increasing number of IT services are viewed as “mission-critical.” As a result, clients have increased expectations for availability of those services and very little tolerance of any interruption in their delivery. More and more, IT is becoming a utility. Just as staff, students, and faculty routinely expect phone, electric, and plumbing services, so too have they come to demand 24 x 7 availability of campus network, e-mail, and Internet services.

Steve Howard may have summed up operational excellence most succinctly when he said, “The rule for operationally excellent companies is: if you truly want to have the lowest total cost, make sure your service is effortless, flawless, and instantaneous.”⁵

Organizational Management

In order for the higher education IT organization to deliver value to the rest of the university community, it must develop a culture of service that permeates the entire organization. Additionally, the central IT group must make its organization more transparent to others at the university and, in the process, make itself accountable to its clients.

Organizational Structure and a Culture of Service

To best serve clients, the central IT organization must be aligned in a way that optimizes its ability to carry out its client’s objective; it will rarely be advantageous from the client value perspective to organize based on internal processes. The central IT organization must also recognize that various points of entry exist into the organization, and it must strive to purposefully limit their number while ensuring that clients can easily get what they need when they attempt to contact the organization. This contact must have access to the entirety of the central IT organization to react in an agile manner and to work with the client to plan proactively.

For the IT enterprise to deliver value to the rest of the community, it is critical to remember that technology plays a supporting role. As compared to understanding client needs and business processes, the technical solution itself is often the easy part, and clients look to the central IT function to understand and apply that solution transparently.

Project Management and Internal Transparency

Similar to strategic planning, project management requires functional cross-unit communication in order to align project capacity planning and deadlines with established priorities. During this planning phase, the retirement of older services should be considered with a goal of streamlining the offerings of the IT enterprise.

Once a project is accepted and planned, transparency in the project management process motivates IT employees to meet deadlines and demonstrates that the organization holds itself accountable for its work. Additionally, financial transparency shows trust in employees while providing a clear view of the organization's priorities in terms of fiscal commitments. Projects with internal dependencies require clear deadlines for each group involved. In order to enforce the importance of productivity in the IT culture, timeliness of project delivery should be tied to either individual or group performance appraisals. Teams should evaluate success in meeting goals by using meaningful metrics and tested models.

Institutional Knowledge and Documentation

Knowledge about the organization's history helps staff members serve customers and address misunderstandings. Upon completion of a project, documentation should be provided to facilitate support for the product and provide a basis for sharing information. Such documentation helps new staff members learn about the organization and its services and helps internal groups plan and troubleshoot shared and dependent services.

Managing Cultural Change

Giving an organization a sense of purpose through clear goals and priorities will help bootstrap the process of cultural change. Additionally, the top tier must work to identify and resolve chronic internal IT problems.

Client Partnership

In the context of client partnership, each of these elements should be thought of purely in terms of the IT organization's external relationships with its clients, not its internal operations or its organizational management structures or communications systems, which were discussed in previous sections.

Attention to Relationships

It is critical for an IT service organization to have accurate information about who uses its services and, if possible, how and why. These metrics include individual and departmental names and contact information, use cases, satisfaction (or dissatisfaction) data, service suggestions, and other formal and informal feedback from clients.

- *Gain a deeper understanding.* Understanding constituents is important because constituents help set governance guidelines, communicate with other interested groups, and offer important feedback about the direction of IT services on campus. In this context, constituents comprise individuals and groups, such as the offices of the provost, budget, and large schools, which have the greatest impact on the destiny of the IT organization.
- *Partnerships are everything.* In successful partnerships, at least one person in the client's organization helps effect a change that brings both groups into alignment. It is critical that both groups feel ownership of the ideas, commit to the brainstorming process, and be willing to compromise.
- *Know thy partners better than they know themselves.* A successful service organization works as a partner with its clients. The organization should regularly include the client in strategic planning meetings and share their service and business visions with their clients.
- *Relationships are important.* Partnering with and understanding your client is important because doing so not only invests all the participants in the process but also helps align the client's needs (actual or perceived) with the IT organization's service delivery strategy and the institution-wide goals.
- *Make it clear.* Many times, an IT organization can act as a sounding board by helping a client organization uncover its true needs (not necessarily by offering a technical solution right off the bat).
- *Be careful what you ask for.* By asking clients what they want, the expectation of delivery can become even greater. This approach creates a change in culture for solving technical problems. Historically, technical people solved technical problems without input or advice from clients. Now technical people must both consider and value clients' input, often creating disconnects between the desires of the client and what can be achieved through IT.

Attention to Information

Another aspect of the partnership proposition is careful attention to information. This differs from the communication aspects of attention to relationships in that this external communication is *to* the client rather than *with* the client. In simple terms, this is the IT organization's "inform and outreach" effort. Attention to information is critical because the clients' needs may be fulfilled by the IT organization's current menu of services, but without sufficient knowledge of those services, or how to properly use them, they might as well not exist.

- *Communicate using varied methods.* Different clients prefer to get their information in different ways. While some might respond to news items on Web pages, others prefer direct mail, e-mail, presentations at staff meetings, and so forth.

- *Maintain awareness of the service.* Outreach throughout the life span of the service can help increase its overall use and, consequently, value, to the campus. Those who miss the big release announcement may also miss the new service's arrival.
- *Help the client effectively use your services.* Outreach also ensures that the client is able to use the service effectively, whether through documentation, training, or direct assistance. Reminding clients of existing features or “tips and tricks” often adds a significant value to the client with very little effort.

What It Means to Higher Education

As the academy increasingly comes to rely on IT to achieve not only its administrative but also its academic and research agendas, the approach to governance for IT needs to be as carefully considered as other components of institutional governance.⁶

Our research revealed that no university IT organization we spoke with has all the resources it needs to do all the things it might do to provide value to its institution. As a result, institutional leadership organizations must help determine, and be accountable for articulating, IT priorities that serve the strategic goals of the institution. These governance groups must focus on making choices. When planned well and structured properly, IT governance can work in concert with the IT organization to ensure alignment of IT services with institutional goals.

IT governance allows both an institution and the IT organization to

- create a shared vision of how IT can provide value to the institution;
- establish institution-wide goals and strategies for meeting them;
- develop broadly accepted guidelines for making IT decisions and managing IT initiatives;
- establish and maintain institutional IT policies;
- determine and communicate institutional IT priorities;
- oversee the management of institutional IT initiatives;
- monitor the success of the IT organization; and
- provide a mechanism through which the user community can participate in IT planning.

Following are some best practices to consider when creating or improving IT governance structures:

- *Don't reinvent the wheel.* Look at the more mature areas of the institution and examine how they handle governance. These areas often have proven processes that are both effective and clearly understood by participants and by those who may be impacted by the governance group's decisions.
- *Overall, IT governance may require multiple groups.* The goal is to design for the fewest number of IT governance bodies as possible. While you should always be looking for ways to improve and consolidate the governance process, don't change these processes too often. Avoid creating governance bodies to address unique problems as they arise. This may result in too many uncoordinated layers, duplication of effort, and overspending.
- *Allow for flexibility.* Governance bodies should be prepared for exceptions, understanding that exceptions are what allow an institution and its staff to be innovative. Avoid being too rigid and creating a structure that frustrates staff by deterring them from promoting creative solutions.
- *Involve the right people.* Governance bodies must be comprised of well-positioned and respected leaders who can communicate effectively—both within and outside the group—about decisions and processes. Members must understand the strategic and business needs of the university and their areas and be able to weigh those appropriately when participating in setting priorities. If IT services are decentralized, it is critical to involve members from all areas.
- *Set clear expectations for members.* Governance is about noting and debating conflicting goals, deciding among different strategies for reaching the same objective, and prioritizing the required activities to meet objectives and goals. Members must communicate and explain the process throughout the institution so that it is as transparent as possible.
- *Measure your success.* By requiring estimates of benefits (for example, productivity gains, cost savings) of particular goals, a governance group can determine appropriate strategies and prioritize initiatives. Equally important, it can and should use these estimates to have the IT organization create and track its own success. Tools such as Total Economic Impact and balanced scorecards provide information for establishing metrics and targets for measuring success and for determining the effectiveness of the governance body as well as the IT organization. Such information allows the governance body to both demonstrate its value and improve its decision-making processes.

Most IT organizations provide value to their institution. The real question is, How does an IT organization provide *greater* value to its institution? We concluded that a foundation of operational excellence and organizational management must be in place, along with at least basic levels of relationships with key clients. This foundation increases client trust in the organization and allows it to move relationships with the client from one of distinct provider/user roles to one of partners.

Key Questions to Ask

- Which processes in support of IT operational excellence are currently in place? How are they measured? How, how often, and to whom are the results communicated?
- To what degree does central IT measure its performance against standardized models and metrics?
- How successful are the SLAs between central IT and its client partners?
- In what ways does our IT organization express its service culture? In general, do faculty, students, and staff members believe they are well served by IT?
- What IT governance structures are in place? How successful are they?

Where to Learn More

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Acknowledgment

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Endnotes

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