



# Optimizing Organization Design *for the* Future

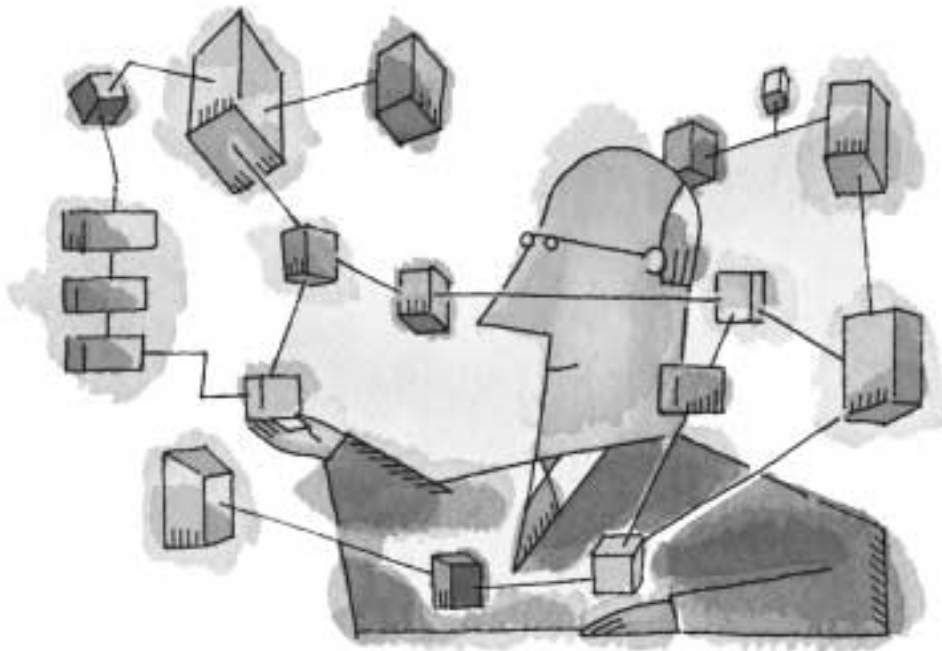
by **Sheila Creth**

*In the higher education environment in the 21st century, administrators of information technology services and libraries undoubtedly will have to manage increasing demands from their users in the context of steady-state or decreasing resources. Reconsidering organization design may offer a way to better utilize the most precious resource of all—the staff. This article suggests that the networked organization is an especially promising approach as libraries and information technology services organizations transition to the future.*

The next decade will be a transition period as colleges and universities revise and expand their mission and services while still embodying the traditions that have dominated higher education for hundreds of years. This transition period will require that administrators at all levels of the institution make tough choices in strategic directions and the allocation of limited resources. In particular, the administrators of the nonacademic core operations such as libraries and information technology services will have to find ways to address the forces affecting their units, including increasing costs along with rising expectations for quality and timely service, efficiencies, and accountability.

Unlike deans, department heads, and faculty in academic programs, administrators in these nonacademic operations are not afforded the culture of contemplation in addressing major changes or problems, nor do they typically enjoy the protection of tenure as they cope with the inherent risks of such change. They will need to find ways to address a host of issues in creative ways but often in the absence of an understanding by campus leadership of their particular issues or problems. There are a number of approaches and options that administrators may select in addressing such challenges over the next decade. An important if not central consideration is the way in which units such as libraries and information technology services choose to organize their work and staff to maximize resources.

There is much to be gained from considering organization design as a way to achieve advancements in productivity and quality services. When an administrative unit is faced with the need to provide new and/or more timely services, to produce new products, and to increase efficiency or productivity, organization design offers a means to achieve gains in these areas.



An administrator contemplating changes in organization structure and processes should take into account the environment that frames the day-to-day operations of the unit as well as its strategic initiatives and those of the college or university. The reality of a particular institution should provide the framework for selecting options for redesign of the organization, although there are common trends in higher education that can inform decisions within the local campus context.

## Organization Culture

Each university or college has a distinctive culture—characteristics that define it. At the same time, specific units within an institution also reflect their own distinctive culture shaped by their profession as well as by the history of the organization. In organization design, administrators and staff should identify those structures and processes that are likely to be successful within the local environment. This does not exclude changes that reshape the cul-

ture, but these need to be accompanied by clearly stated expectations, an appropriate recognition and reward system, and training and development opportunities to reinforce the new culture that is desired. Prior to initiating major changes in the organization, administrators and managers should heed the advice of Davis and Botkin in their well-known book, *The Monster Under the Bed*, as they cautioned against spending “too much time building an organization and too little time building the business.”<sup>1</sup>

## Organization Structure and Processes

As a first step in considering organization design, the difference between organization *structure* and *processes* should be understood. Organization structure and processes are interrelated and both are essential in sustaining an effective organization, but they are different; it is important to recognize how each contributes to organization effectiveness.

The *organization structure* defines how

work responsibilities are assigned and the way in which units, departments, and divisions are organized to get work accomplished. The organization structure provides clarity regarding individual and group responsibility for the employees of the organization and those who are served by the organization. This is the formal aspect of the organization and is the basis for stability.

The *processes* of an organization provide the context for how people accomplish their work within the established structure. These processes consist of working relationships, communication systems (formal and informal), and interdependence among groups and individuals; this is where the greatest flexibility resides in the organization.

An examination of both organization structure and processes provides insight into the value and role of each in designing the most effective organization for the local environment.

## Organization Structure

The components of an organization structure include the division of work into units and departments, the differential assignment of responsibility and accountability to positions, a benefits and reward system, the establishment of policies and procedures, and the distribution of resources. As an organization grows in size and complexity, the structure typically becomes more layered and formal. The organization chart represents the division of responsibilities and roles while position descriptions, policy manuals, and the promotion and salary systems represent other components of the formal structure.

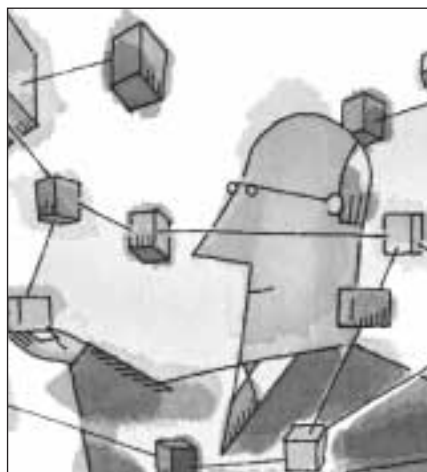
The most familiar and pervasive organization structure is that of *hierarchy*, which is found in almost all organizations—churches, military, community groups, businesses, and colleges and universities. The development of hierarchies—or the differentiation of role,

responsibilities, status, and power—in organizations becomes dominant as small organizations grow in size and complexity. This growth and complexity result in more formal organizations and an increased dependence on hierarchical structures to create clarity in responsibility and accountability, to reduce duplication, and to increase efficiency.

Indeed, the organization structure built around a hierarchy with the differentiation of roles and responsibilities was highly effective in a stable economy and work environment. The pace of change, though, for all organizations has greatly accelerated during the past decade with information technology providing rapid and varied communication choices, customers demanding more timely and new services, and professional employees, in particular, expecting to have a greater say about their work and their work environment.

The organization structure, specifically the hierarchy that served well for most of the 1900s, became the focal point for finding fault with organization effectiveness in the new environment of rapid change. Hierarchy was blamed for stifling communication among staff, inhibiting creativity, and generating time-consuming and bureaucratic procedures. A number of organizations responded by reducing the role of middle management, or reducing the number of managers while increasing their span of control, while others established teams in place of functional departments.

Clearly, though, eliminating or reducing hierarchy is not the solution for all organizations. Indeed, hierarchy as the real culprit in inhibiting the responsiveness of an organization to its customers has been challenged. Kraines in his article, "Hierarchy's Bad Rap," states that "the enemy of creative, adaptive, and ultimately successful work organizations is not hierarchy.... Good hierarchy also fosters fair, trust-induc-



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ing working conditions."<sup>2</sup>

Additionally, research shows that hierarchies operate and shape outcomes even outside of a formal structure since they are common to any social system.<sup>3</sup> For instance, within teams decisions are affected by perceptions of expertise and power as well as gender, age, and the like. In recognizing that hierarchy operates in all areas of the organization—the formal structure as well as social groupings—it becomes more evident that simply eliminating the hierarchy is not sufficient to achieve a more responsive organization. The challenge for administrators is to find a means to achieve flexibility in organization responsiveness even within a hierarchical structure.

In the 1980s a trend developed "across the economic spectrum" of establishing teams as the answer to hierarchy. In some situations, teams were used as a short-

term mechanism for addressing a particular issue or problem; in other cases, an organization or a division declared itself team-based, replacing departments and units. More often than not, teams were established to replace the hierarchy. This creation of teams as an alternative to the hierarchy has received considerable attention—countless books and articles have been published—but confusion remains about the benefits accrued with teams as well as the requirements to achieve effective teams. The reality seems to suggest that simply declaring that teams now exist, replacing or flattening hierarchy, does not ensure that innovation, flexibility, and responsiveness occur.

Katzenbach has defined a "real team" as one that consists of "a small number of people with complementary skills who are committed to a common purpose, performance goals, and an approach for which they hold themselves mutually accountable."<sup>4</sup> He states that there is a "discipline of team basics" required to "obtain the extra measure of performance results that real teams can deliver" and that spending time together as a team is not the same thing as "team performance" nor is spending time together seeking consensus the same thing as doing real work. Katzenbach developed his "litmus test" for teams that includes the following characteristics: (1) shaping collective work-products, (2) shifting the leadership role among each of its members depending on task, and (3) holding one another accountable for results.

It is clear that if a team-based approach is to contribute to the overall quality and efficiency of an organization, the purpose of teams needs to be carefully considered, expectations and responsibilities clearly articulated, the recognition and reward system altered, and a means for maintaining subject and functional expertise established. Teams

certainly are not always the appropriate structure. Overall, teams are more likely to be successful if it is the process of teamwork rather than the structure of teams that is emphasized.

There are other approaches that organizations frequently utilize in getting their work accomplished, particularly when expertise from across the organization is needed to investigate and advise on a particular problem; to analyze a new opportunity; or to assume responsibility for the design of a new system, service, or product. These optional approaches include committees, advisory groups, councils, task forces, and project groups; they seldom appear on an organizational chart, even though they may represent a significant way in which work is accomplished. And when such groups have a "permanent" status, such as standing committees or continuous project groups, the membership typically shifts over time so that there is an infusion of new expertise and perspective into the work of these groups. These alternative work groups supplement or overlay the formal organization structure, which is often a hierarchical one.

Beyond strengthening the quality of work, these groups tend to improve communication across the organization and result in staff developing greater knowledge, understanding, and commitment to work and people outside of their own unit. These alternative groups become the "lateral work flows" described by Kraines.<sup>5</sup>

There are many issues to be considered in redesigning the organization structure, but a focus on structure should be aligned with consideration of organization processes to create the most efficient and effective organization.

## Organization Processes

The processes of the organization focus on how work is accomplished and,

therefore, on people: relationships, interactions, knowledge, and experience. This is in contrast to organization structure that is focused on the distribution of work responsibility through divisions and units and job assignments.

Just as with the organization structure, there are both formal processes, those that are recognized and cultivated by the organization, and informal processes, those that exist solely because of personal style and/or philosophy of an individual manager and/or the dynamics of a specific group. For example, *delegation of responsibility and authority* is a process. In one organization, delegation is promoted and expected throughout the organization as a way to fully engage the knowledge and capability of the staff while in another organization delegation might be encouraged and expected by only a few individual managers.

Creating a working environment that builds on a *team process* is another approach to maintain vitality and responsiveness in an organization. The focus for a team process is on the interactions and relationships within a group and the expectations for how individuals will work with their colleagues. The team process is not limited by what the group is called—a committee, advisory group, project team, or working group—but only by the ability of the group members to create and sustain characteristics of a team environment. These characteristics are not easy to put into place nor do all situations benefit from a team process.

Whatever processes are established in an organization, they need to be aligned with the overall goals and performance of the specific organization; they cannot exist outside of this context if they are to be supportive of the enterprise. In addition, the processes will be most effective if supported by the organization leadership. For example, if the organization administrators want to encour-

age greater team process, then they need to allocate resources to create meeting facilities and networked systems for communication, and they need to ensure that information is disseminated to all parties in a timely manner. In addition, the organization recognition and reward system needs to be adjusted so that staff receive tangible benefits for shaping their behavior around team effort and commitment.

The challenge for an administrator is to understand organization structure and processes in order to design the work environment so that both stability and flexibility exist. An organization design that is receiving increasing attention is that of the *networked organization* as it offers a way to meld traditional and new structures and processes. The networked organization is an approach for creating an organization architecture that incorporates the dynamics of the local situation and allows the organization to be responsive to both internal and external realities.

This concept has considerable validity for information technology services and libraries in this transition period for their own units and within higher education.

## Networked Organizations

The networked organization offers a way to design work and working relationships along both axes of structure and processes that will meet the needs of the work to be accomplished in the most effective and efficient manner. This organization relies on connections of people within and across divisions and departments sharing their expertise and having the authority to reach decisions and take actions.

According to Baker, such an organization is characterized by "flexibility, decentralized planning and control, and lateral (as opposed to vertical) ties.... The chief structural characteristic of a network organization is the high degree

of integration across formal boundaries." He further states that the integration across these formal boundaries should be of "multiple types of socially important relations" and should include "task-related communication, informal socializing, advice-giving and advice-getting, promotion decisions, and so on.... For a network organization, integration covers vertical and spatial differentiation as well as horizontal differentiation."<sup>6</sup>

In developing a networked organization many cross-functional groupings will occur in order to meet the changing needs of the organization. Nadler and Tushman indicate that "the new architecture . . . [will] rely upon people to use their collective knowledge, judgment, skill, and creativity to perform a variety of jobs and functions...in concert with their colleagues."<sup>7</sup> While management can and should appoint groups to work together, as the concept of the networked organization is accepted throughout the organization, other groups will emerge spontaneously as staff themselves see that they can benefit from working with their colleagues on specific programs, services, products, or problems.

A vibrant networked organization, particularly one composed of a large number of professionals, will indeed have a high level of voluntary networking throughout the organization. As Nadler and Tushman conclude, the networked organization "shatters the rigid boundaries that traditionally separated one division from another...and provides more flexible relationships and alliances." In the networked environment, issues of hierarchy, motivation, and satisfaction are seldom matters of discussion; instead, people are fully engaged in contributing in the broadest possible ways that their experience and knowledge permit.

Information technology plays a central role in supporting the dynamic

human networks that comprise the networked organization. Indeed the flexibility of technology now provides a resource that expands and enhances the ability of organizations to create a networked human environment by providing new methods for timely communication across the organization unlimited by time and place. Information technology is a powerful tool that supports collaboration among people dispersed geographically who hold positions at different levels of the organization in varying units and with diverse skills and abilities.

A networked organization is characterized by many alliances and relationships, by a number of processes that are in play and evident throughout the activities of the organization, and by a variety of structures that operate simultaneously such as a hierarchy, teams, committees, advisory groups, and the like. It is a messy organization in comparison with a traditional vertical or linear organization but one that is increasingly seen as offering essential qualities of stability and flexibility for those organizations facing dynamic changes.

## **A Networked Organization in Action**

There are undoubtedly examples of libraries and information technology organizations that already have moved toward or adopted a networked organization structure without necessarily even recognizing it as such. The University of Iowa Libraries is one such example, where the organization evolved from a highly centralized, hierarchical, department-focused structure to one in which significant programs and innovative initiatives occur because of a fully networked organization.

A hierarchical structure still exists with divisions, departments, and a management group, but the processes of the organization, or ways work is accom-

plished, have changed radically. This shift in the organization occurred due to necessity as well as a philosophy of the library administration. Necessity was created by the small size of the libraries staff relative to the size of the university student and faculty population and the existence of a decentralized library system with a main library and 11 branch libraries with staff spread thin across the various departments. This meant that no single department or unit could achieve alone what was possible by combining or sharing staff time and talent across the library system.

It was necessary, therefore, to find an approach to implement and support new and expanded initiatives by drawing on people from throughout the library system based on their knowledge, commitment, energy, and interests. In addition, the library administration advanced a philosophy of encouraging staff to use their expertise and talent in various ways to further the mission of the libraries. The professional staff were encouraged to see themselves as having a role and contribution beyond a department or primary job assignment and to value what they could achieve in cooperation with their colleagues. The library administration implemented an annual salary system that rewarded people for all of their contributions including those that went beyond their primary job assignment and department.

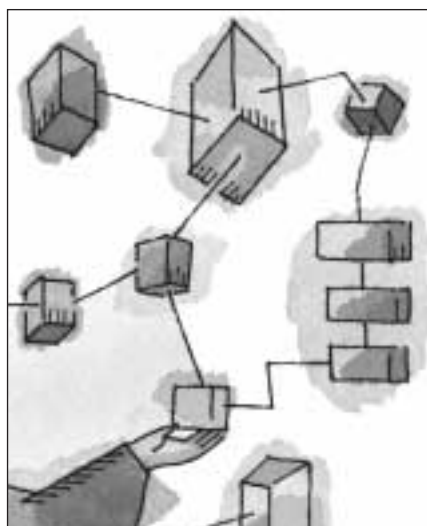
The libraries user education program is a significant achievement made possible through the networked organization approach. This educational program offers students, faculty, and staff at the university varied approaches to learning the full range of information resources—print to electronic—and learning about various technologies and their applications. When this program was launched, there was no additional staff to assign to it and, therefore, professionals throughout the library system



were asked to contribute their time and effort to make this program a success. By working together over a number of years, the professional staff have created a highly regarded educational program that offers varied sessions to over 7,000 individuals a year in hundreds of instructional seminars. The strength of this program has been built on the collaborative efforts among professionals who bring their ideas, perspectives, and talents together to create a program that is acknowledged and recognized from students and faculty to the president of the university.

There are numerous other initiatives that have been launched within the libraries based on the networked organization approach, with the majority of these efforts initiated by the professional staff. In addition, many initiatives have involved librarians working with information technology staff and with individual faculty and academic departments so that the network approach to accomplishing work has expanded beyond the library system. Some of these activities involving staff from the library and from information technology include classes offered to academic departments on designing Web pages, the selection of a new integrated library system, and the design and operation of the electronic information and teaching facilities—the Information Arcade and the Information Commons.<sup>8</sup> These are all successful ventures because people from the library system, the information technology staff, and in some cases faculty worked together with trust and respect.

Not only has the networked organization resulted in application of staff skills and abilities more broadly in achieving programs and services, innovation has flourished among the staff. Additionally the professional staff have expanded their own expertise and knowledge including learning how to work effec-



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tively with colleagues from outside their own departments and outside the library organization. Over time, the practice of working within a networked organization has become well integrated into how the professional staff approaches their work.

There are numerous projects on campuses that could be the basis for utilizing a networked approach within information technology services or the library or between these two units. These would include:

- training and educating students and faculty in applications of new technology and information resources;
- developing electronic text centers;
- creating support for electronic publishing;
- identifying applications for Internet2;
- supporting research and development related to technology applications for teaching and research;

- space and facilities planning; and
- staff training and development on a wide range of topics from management issues to maintaining currency in new technologies.

The opportunities for realizing benefits through a networked organization are endless. The challenge is to value the contribution of individuals beyond the traditional boundaries of job title and departmental assignment and to encourage and reward cross-department and divisional approaches to addressing services, problems, and new initiatives.

## **Personal Requirements in the Networked Organization**

If individuals are to be successful in a networked organization, which is far less disciplined in its structure and processes, they must develop their own discipline for working with others to share expertise, responsibility, and accountability. People in the networked organization need to have strong communication skills and the willingness to negotiate and to compromise. A networked organization that relies on a collaborative process will not be a comfortable work environment for all professionals, many of whom are accustomed to working independently and receiving recognition and reward based on individual achievement.

To reinforce the networked organization, administrators need to have in place a reward and recognition system to acknowledge the efforts of staff who are productive within this environment. They also need to consider the recruitment and selection process so that new people hired into the organization will have the abilities necessary to be effective in the networked culture.

Furthermore, the role and activities of managers will need to change if the networked organization concept is really to take hold and be successful. A hierarchi-

cal structure may remain in place in order to facilitate major decisions that involve the allocation of resources, strategic planning, priority setting, and a variety of personnel matters from recruitment to disciplinary issues. Nonetheless, managers will need to rethink their role and how to encourage staff to be more independent and to take greater responsibility. Overall managers need to step back and be willing to let go of some control and see their primary responsibilities within the following activities:

- Developing shared values and vision among staff
- Encouraging adaptability, innovation, accountability, and teamwork
- Coaching and mentoring staff
- Developing staff capabilities
- Assisting staff in solving problems and initiating new programs and services
- Providing resources
- Providing incentives to encourage collaborative work

And for managers to be successful, they—like their staff—need to accomplish their work by using the networked approach with other managers and with staff from other departments and units of the organization.

## Conclusion

The challenge for campus administrative units such as information technology services and the libraries is to manage an integration of structure and processes in order to maintain stability while increasing flexibility in the organization. Nadler and Tushman observe that "the only real, sustainable source of competitive advantage lies...in an organization's 'architecture'—the way in which it structures and coordinates its people and processes in order to maximize its unique capability over the long haul."<sup>9</sup> If academic administrators are guided by the following key points,

then organization design can be beneficial for everyone involved including the constituencies served on campus:

- Recognize the difference between structure and process to make the best use of options in organizing work and people.
- Maintain both flexibility and stability and recognize ways to secure both in the local setting.
- Be clear on criteria for organization effectiveness (for example, quality, responsiveness, innovation, and full use of staff talents) and for organization efficiency (for example, lack of

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*Overall, teams are more likely to be successful if it is the process of teamwork rather than the structure of teams that is emphasized.*

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duplication, timely response, resources allocated to strategic priorities).

- Refrain from simply adopting what others do and avoid being defensive about the organization because it may appear more traditional, particularly in its formal structure.
- Establish measurements on which to assess organization effectiveness and efficiency on a periodic basis.
- Modify and change, experiment, and be flexible in both the structure and the processes utilized by the organization.

The greatest opportunity for success lies with the staff of an organization; as a colleague observed, our most valuable resource goes home every

night. The power of the staff can be magnified if we consider how the organization structure and processes can be designed to enhance their efforts while removing the barriers that impede their success.

## Endnotes:

1. Stan Davis and Jim Botkin, *The Monster Under the Bed. How Business Is Mastering the Opportunity of Knowledge for Profit* (New York: Simon & Schuster, 1994), 120.
2. Gerald A. Kraines, "Hierarchy's Bad Rap," *Journal of Business Strategy*, July–August 1996, 15.
3. Lee Sproull and Sara Kiesler, *Connections: New Ways of Working in the Networked Organization* (Cambridge, Mass.: The MIT Press, 1991), 61.
4. Jon Katzenbach, "The Myth of the Top Management Team," *Harvard Business Review*, November–December 1997, 84.
5. Kraines, 15.
6. Wayne E. Baker, "The Network Organization in Theory and Practice," in Nitin Nohria and Robert G. Eccles, eds., *Networks and Organizations: Structure, Form and Actions* (Boston, Mass.: Harvard Business School Press, 1992), 399–400.
7. David A. Nadler and Michael L. Tushman, *Competing by Design: The Power of Organizational Architecture* (New York: Oxford University Press, 1997), 9.
8. For a description of the development of the Information Arcade, see A. Lowry, "The Information Arcade at the University of Iowa," *CAUSE/EFFECT*, fall 1994, 38–44 [<http://www.educause.edu/ir/library/text/CEM9438.txt>]. The Web site of the Information Arcade is at <http://www.lib.uiowa.edu/arcade/>.
9. Nadler and Tushman, viii.

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Sheila D. Creth ([sheila-creth@uiowa.edu](mailto:sheila-creth@uiowa.edu)), formerly university librarian, University of Iowa Libraries, recently established a consulting business, *Progressive Solutions*, in Iowa City.

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