Although higher education institutions are often stereotyped as change-resistant, technology-driven change on campus is as pervasive as it has been in the general workforce and society at large. Technology, however, is not the only catalyst for change. Global and domestic competition for students, budget pressures, the decreasing ability of prospective students to pay ever-increasing educational costs, evolving expectations of what it means to provide a high-quality education, and the exploding potential for innovation in teaching and learning have presented a set of nearly unimaginable challenges to the higher education enterprise. It is, in fact, technology that often allows higher education to respond effectively to these other changing needs.

Campus human resource (HR) professionals are as pivotal to their institution’s establishing an effective response to such change as are information technology (IT) professionals. Historically, however, many campus HR departments have not been regarded as partners or players in institutional strategic planning. On the contrary, HR staff have been regarded as paper-pushers and gatekeepers, the people who make sure that employees are put on the payroll and enrolled in benefits and that policies and procedures are followed. This history has not facilitated—in fact, it has impeded—the kind of engagement that is essential to help guide institutional response to the many challenges created by the technology revolution.
Today, on many campuses the role of the HR professional has evolved so that he or she is expected to work as a peer with other senior campus administrators in developing institutional strategic plans, in recognition of the larger potential value he or she can add (Connolly, 1999). The HR professional is knowledgeable about the business of higher education and of the role technology plays in it, is strong in the functional areas of managing people, and is competent in establishing and maintaining credibility with all campus constituent groups by facilitating and practicing effective working relationships. In establishing this new role, HR professionals have begun to change many of their longstanding practices and policies so that they are more fully integrated with the goals and challenges now facing their institution.

In this chapter, we address the human resource challenges that are presented by the reality that, in our current work environment, technology touches every employee and every student in some way or other. We recommend strategies that your institution can consider in responding to these challenges, emphasizing the importance of a partnership between HR and IT.

**Human Resources: Leading and Supporting Change**

Over the last decade, jobs have changed as rapidly and unpredictably as the weather. Customer demands for services and employer expectations of the employee’s contribution to meet those demands have increased in parallel. Correspondingly, the level of required job skills and performance expectation has risen sharply.

The availability and application of new technologies is one of the primary drivers of this change and is now, more than ever before, a basic cost of doing business. Some other factors that have affected the pace of change are the increase in the number of women and people of color entering the workforce, competition to include nontraditional modes of educational delivery, and the growth and development of a global economy.
A clear business case for change exists. Successful colleges and universities are committed to finding ways to keep pace with technology change; in this regard, they recognize the growing importance of the role of human resources as an agent of continual transformation (Ulrich, 1998). An institution’s technology strategy clearly must be an enterprisewide initiative and embody the principal goals and objectives of the institution. In academe, there is always a potential for both support for and resistance to any change initiative. Success is often a result of a consultative process that involves the members of the community who have a stake in and commitment to the outcomes; the HR leader is in an excellent position to help facilitate that consultative process.

To remain viable and competitive, a college or university knows it must create and maintain academic and administrative systems that keep pace with technological change and, most important, support the mission and key institutional goals and objectives. These systems form the infrastructure to support institutional success, but they also pose significant challenges.

Support for Transforming Teaching and Learning

The potential for using IT to support teaching and learning is exploding. Application of technology in the curriculum presents many challenges as the higher education institution attempts to effect change in traditional methods of educating. The institution must critically evaluate academic programs, even to disassemble and recreate them so as to position itself and the faculty to effectively integrate technology into teaching and learning.

To support this transformation, the campus must employ a sufficient number of staff who have the necessary competencies to facilitate this process of change and innovation with integration of technology into the educational mission. These competencies include not only technical skills but also the interpersonal and communication skills to effectively negotiate relationships with faculty and other more computer-savvy customers, including staff and students.
Support for Administrative Change

A college or university is also pressed to put in place effective and efficient administrative systems. Clunky, slow, inefficient, centralized, administrative systems driven by the Computer Center are a thing of the past. Slick, fast, efficient, decentralized, user-driven administrative systems have taken their place. They require a significant increase, though, in the technology knowledge base of the front-line user. They also require central information technology support staff to develop new competencies to communicate, plan, and support these end users.

An institution simply cannot follow through on changing administrative systems strategies without a concerted HR effort to ensure that the right personnel are hired and retained—not just IT personnel, but personnel throughout the institution. The IT skills of these new employees need to be state-of-the-art and their communications skills fluent.

The HR-IT Partnership

A partnership between an institution’s chief human resource officer (CHRO) and its chief information officer (CIO) can greatly facilitate proactive planning for and garnering of institutional, employee, and community support as well as implementing campus initiatives in response to technological change.

The combined expertise and campus clout of the CHRO and the CIO are important. Each administrator brings to the table his or her relevant functional expertise. The CIO brings the knowledge of technology and pertinent market information about technology change trends, as well as operational understanding of the business of the division. The CHRO brings knowledge of human resource management, including recruitment, compensation, legal considerations, employee relations, a campuswide perspective on these issues,
and the relevant market information about trends in the business of human resources.

The success of the partnership between these administrators depends on the effective command of their respective expertise. It also depends on their ability and willingness to trust each other and work toward common institutional goals, on their comprehensive understanding of the business of higher education and their institution specifically, and on their ability to establish and maintain working relationships with many constituencies at all levels across the institution to promote credibility and trust in their work and expertise.

In some institutions, this partnership may come naturally. However, in an institution with a history of adversity in the relationship between HR and other departments as a result of its administration of policies and practices, it takes more work to develop the relationship. A positive working relationship can develop out of an adverse situation, but this happens only if both parties are willing to listen to each other, trust in the expertise that each brings to the table, and acknowledge the institutional goals that are important for them to achieve together. Learning from each other's expertise and perspective (asking “What are your concerns?”), sharing information that supports a position or opinion, and being willing to “move your stake” facilitates this partnership.

IT is everywhere, and colleges and universities are vulnerable to the market. To be successful in the face of such vulnerability, HR and IT partners must identify the challenges and work together toward an agreed-upon solution. Human resource practices have to be moved out of their black box. For example, sharing salary survey data and discussing benchmarking strategies builds credibility and a shared ownership of the outcomes; HR gains comprehensive understanding of IT vulnerability and challenge, and IT gains better understanding and respect for internal equity issues. The result is tremendous synergy and a credible, productive partnership that can influence and inform campus strategy.
Technology Everywhere: Changes and Challenges

Integrating technology into work processes has resulted in a significant shift as to where and how work is accomplished, and in many cases as to who is responsible for actually doing the work. The consequence of this integration of technology is that almost every person on campus is exposed to technology in his or her work, studies, or basic campus communications.

Most employees now need to be proficient in technology to some degree if they are to be successful in their jobs. This phenomenon has resulted in a blurring of the line of functional responsibility between traditional IT workers and other campus employees.

In addition, management of information through technology is increasingly decentralized, with employees across the institution engaged in technology-based work. Some of this decentralization of IT work has resulted in establishing technically oriented positions in various functional areas. It has also resulted in the significant evolution of many jobs across campus that now entail technology components ranging from use of spreadsheet, database, and word processing programs and data analysis tools to establishment and maintenance of Web pages, as well as increased involvement and accountability in selecting and maintaining administrative computing systems.

In this “technology everywhere” environment, job descriptions are changing incessantly—new jobs are emerging, not only in IT departments but in all departments, creating expectations for job reclassification both for IT workers and IT-enabled workers. With change in classification, expectations arise for commensurate change in compensation systems.

Earlier classification and compensation systems designed by many HR departments across industries, with the help of consultants, did not take into consideration the kind of skill and competency essential to accomplish today’s work or to compete for talent in today’s workforce. These were often point-factor systems that rigidly and somewhat arbitrarily assigned values to skills, experience, and edu-
cation and left little or no room for flexibility. A college degree was often required if a position were to be rated as professional-level, and promotional increase was limited to 5 percent or minimum of the new salary grade. Furthermore, salary grade was established by benchmarking only with other institutions of higher education.

Such rigid and narrowly focused criteria often resulted in conflict between HR and hiring departments because employees were unhappy with their compensation level and potential for position and salary advancement, hire-in salary range was not competitive enough to recruit the talent needed, and the systems were holding back elevation of positions as a result of antiquated rating and factor designations.

Recruitment practices were also in need of retooling. As the job market shifted and the skill levels required of prospective employees increased, colleges and universities were slow to expand their recruitment horizon beyond the higher education market. This phenomenon was especially true in hiring administrative office and IT professionals, where there was significant competition for applicants with strong technology skills.

**Strategies for Dealing with Change**

Which strategies have helped to meet these challenges? What can your campus do to ensure that human resource issues receive the attention they demand? One exemplary plan has been articulated by the University of California system, as part of a “new business architecture” developed to “manage growth, control costs, improve the work environment, and implement best business practices” (New Business Architecture Planning Group, 2001, p. iii). As one of six key components of the architecture, the people section of the UC plan suggests a set of simple but powerful strategies for leveraging human resources in the digital age (Exhibit 4.1).

From our experience at Mount Holyoke College (see the sidebar for our case study), we have found similar strategies to be successful,
Exhibit 4.1. People Strategies

*Improve Recruitment and Retention*
- Promote the institution as an employer of choice
- Streamline the hiring process
- Expand outreach to increase diversity
- Create flexible benefits
- Improve job design and classification
- Institute market-competitive compensation

*Improve Professional Development and Productivity Strategies*
- Customize training approaches, including an on-line training and development curriculum to complement and enhance current training offerings
- Expand training and development programs for core competencies in supervision/management, interpersonal skills, and basic technology
- Expand and build upon professional development offerings in leadership and other professional skills for career mobility (classes, internships, fellowships, other experiential learning)
- Create and build upon training programs and internships for employees to become information technology professionals (for example, an in-house “IT University”)
- Deploy additional staff resources when required by significant growth or new requirements
- Develop new on-site and off-site initiatives to deepen skills in managing complexity
- Strengthen orientation and acculturation initiatives to build community
- Improve workforce planning, including labor-management partnerships

beginning with making the people challenges strategic and being a proactive part of process and organizational change. Both human resource and information technology leaders must gain support from senior management to move discussion about human resources and technology to a more central and strategic place in campus planning. Technology planning can no longer be a peripheral or stand-alone activity; it must be incorporated into the institutional planning and strategic direction-setting process.

The CHRO, CIO, and their staff can bring their respective expertise to a partnership that results in identifying and implementing creative strategies for supporting technology growth with limited human resources and for leveraging the power of “technology everywhere” to benefit the institution in many ways.

**Distributing IT Skills and Talent**

Working together, IT and HR staff can establish a group of employees from across campus to function as a network of local experts who partner with IT staff in all kinds of activity to support the growing demand for technology development, education, and training.

HR can play a leadership role by proactively capturing information about the skills and capabilities of employees throughout the institution so that their talent can be leveraged in deploying them on various project teams as needed. This has been described as a “knowledge management” role for HR (Roberts-Witt, 2001). Since such teams must be formed and reformed rapidly to adapt to changing campus requirements, HR managers have to become proficient at mobilizing and dismantling project teams (Boyett, Boyett, Henson, and Spirgi-Hebert, 2001). The University of Minnesota is in the process of adopting such a skills-inventory approach, identifying which skills exist in the institution to benchmark and train against and to be used to inform the hiring process. The aim is to hire people who can be mobile within the university, with more general skills, so that they can be moved around the organization as needed for special projects.
As a result of this strategy of deploying staff as needed to work on critical projects, employees who would not ordinarily be involved in a campus initiative beyond their own position and limited departmental role have the opportunity to be involved on a team to work on a project with campuswide impact. A college or university is a relatively flat organization with limited opportunity for career development inherent in its structure. This leveraging of employee technology skills opens up prospects for really garnering the talent of existing staff to meet important institutional goals.

HR and IT need to work together with academic and administrative department heads to identify the local experts and gain departmental support for the concept. Local experts can serve in a train-the-trainers capacity in their department; act as liaison between

Mount Holyoke College:
A Case Study in Organizational Change

Mount Holyoke College (MHC) is a private, liberal arts college for women, located in western Massachusetts. It has two thousand full-time undergraduate students and one thousand employees. Like our peer institutions, Mount Holyoke has had its share of change initiatives resulting from technology. We have learned a lot along the way about which approaches to implementing change have worked and which have not. One of the key things we have learned is how much our organizational culture (which strongly promotes interdepartmental communication and collaboration) and our organizational structures are tremendously valuable in successfully implementing change initiatives.

Becoming a High-Performance Organization

In the early 1990s, Mount Holyoke’s senior management, under the leadership of the president and in coordination with the human resource department, embarked on a strategic initiative to become a
IT and the department; help identify, test, and prioritize new technologies and their uses; and even identify office ergonomic concerns.

A potential concern about such an approach might be that the staff who are identified and invited to participate must be fairly compensated for the more advanced technology role they are assuming. We address this concern in discussing salary administration programs.

Providing Technology Training for Everyone

Recognizing that many campus employees are struggling to learn new technologies, HR must implement strategies to help current employees develop their skills. An important philosophy of any technology training initiative is development of employee self-sufficiency in using the technology. Although support from a help high-performing, inclusive organization. Two key elements to reaching this goal are having a defined mission and vision—with identified institutional strategic initiatives to serve the mission and vision—and having an infrastructure to support this work. A major component of this infrastructure is norms on how people in the organization are expected to interact.

As a result of this work, for more than a decade MHC’s management teams have worked in an environment that calls for communication, partnership, collaboration, and respect for and value of individual contribution. Managers are expected to understand the mission and priorities of the college and to keep the business of their departments in alignment with these goals. They are further expected to encourage interdepartmental and intradepartmental teamwork.

Restructuring the Library and IT Organizations

Approximately six years ago, under the leadership of the provost, MHC’s computing, library, and electronic services departments
desk and ongoing training opportunities are important, a key goal should be to develop technology skills throughout the institution.

It is important to recognize that adult learning styles vary, and that this demands a flexible approach to training opportunities. Traditional classroom training, although more expensive and time-intensive than other alternatives, can be an effective approach to teaching some employees. Collaboration with other institutions or departmental trainers (again, the train-the-trainer approach) can be a useful alternative for employees who need this hands-on guidance and support. A self-paced training program on CD-ROM or an e-learning course allows an employee to go to a computer laboratory, take the program back to the office, or carry on the training from home.

underwent restructuring that involved merging these previously separate entities into one organization, Library, Information and Technology Services (LITS). This restructuring resulted in some initial anxiety from both employees of the merging departments and campus users of library and technology services. Employees asked, What do books have to do with technology? Why is administrative computing a part of this merger? What is the college trying to accomplish by the merger? How will the merger affect me and how I do my work? Faculty and administrative departments questioned: What's going to happen to services? Will my needs be met? How will the integration of library and IT services be better? What will this change mean to me and my job?

The chief human resource officer and the chief information officer worked closely in planning for and implementing this restructuring from the onset. Six years later, we can say with confidence that the goals of the merger were achieved. We have successfully integrated the three organizations. The effective partnership between HR and IT was a key success factor.
Training and retraining of IT staff (addressed in more detail in Chapter Five) is also an important component of rethinking from a human resource perspective. Higher education has significant IT needs; however, they are relatively stable and do not generate the same potential for regular exposure to exciting new technologies as is true in the more dynamic dot-com world. As we mention later, the potential for stability can be valuable, but it can also be regarded as fatal by the IT professional looking for growth potential.

Every college and university must find a way to offer the opportunity for skills development for IT staff. There is no downside to keeping employee skills fresh. Although helping employees develop their IT skills also increases their marketability, supporting employees in maintaining state-of-the-art skills serves the institution well.

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**Benefits of the Reorganization**

There have been many advantages to this integration in both the academic and administrative realms of information technology. Faculty have seen increased outreach by members of LITS. We have developed the position of instructional technologist in the LITS organization, dedicated to support of faculty in integrating technology into teaching and learning.

The instructional technologists work closely with the librarians who have themselves significantly integrated technology into their teaching and research instruction activities. This role requires LITS staff to command communication skills and scholarly experience and, in turn, creates credibility for them with faculty and students. This allows them to effectively aid faculty in identifying ways information and technology can be integrated into their courses and to enable them to effectively guide and support faculty and students in the use of information and technology in teaching and learning. In many ways, LITS staff are functioning as change agents and change facilitators.
Employees are exposed to new technologies for which they can imagine use on their campus, and such training promotes positive morale by letting the employees know that their contribution to the institution, as well as to themselves, is valued.

**Identifying Core Technology Competencies**

The ability to use technology is an essential competency for success in just about every job on campus, especially office jobs. It is important to develop strategies to expand the competency level of current staff, but it is also important to recognize the occasion of a vacancy for HR and IT to work together to establish a set of core technology competencies for new office hires.

Here are suggested prerequisite skills for all new office and administrative hires:

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This structure has also facilitated the establishment of campuswide teams to evaluate technology trends and advances in support of administrative and academic pursuits, including campus networking, the implementation of a new financial accounting system, a courseware management system, mediated classrooms and training facilities, and most recently, the establishment of a student information systems review team.

Also as a part of this restructuring, LITS was able to gain institutional commitment to establishing adequate budget reserves to fund computing equipment upgrades, to secure a commitment to an increased dedicated commitment of staff to the quality and quantity of our Web presence, and to building our campus networking resources and capabilities.
• Basic word processing
• Basic spreadsheet familiarity
• Use of a Web browser
• Basic printer and file sharing
• Use of e-mail
• File management
• Basic hardware use and maintenance
• Appreciation of work analysis and work restructuring

Although the labor market has seen many shifts over the last decade in terms of the quantity and caliber of available workers, campuses have seen a recent and significant increase in the technical skill and experience in the administrative support applicant pool. As a result, they have been more successful in recruiting new office professionals who have well-developed fundamental technology skills.

Many current employees are motivated by the skill changes expected of them. Still, it is not uncommon to encounter incumbent staff who are unable to develop these core technology competencies because of resistance or inability; consequently, the campus must have a strategy to deal with this. Although it is important to recognize and make time to support development of these employees, unfortunately the end result may be termination of the employee. This can be difficult for the institution, the employee, and the employee’s peers, especially if the employee has a record of previously successful service to the institution. The decision must be made thoughtfully and implemented carefully. Alternatives can be considered, such as another job opportunity that does not require the same level of technical skill or the incentive of early retirement.
Creating Flexible Salary and Classification Systems

The technology revolution requires an institution to retool its salary and position classification systems to include job factors that appropriately recognize and value the changing role of technology in campus jobs. A job evaluation instrument used to collect information about position duties, responsibility, experience, and education may need redesigning to collect better information about the tech-

Flexible Salary and Classification Systems

A number of higher education institutions have restructured job design and compensation systems to accommodate changing skills requirements in the digital age, especially within the information technology community.

One of the first to tackle this challenge, in the early 1990s, was the California State University (CSU) system, which implemented a six-classification series for IT that aggregated work functions on the basis of common outcomes and skills (core functions) (Swan and Giunta, 1994). The accompanying change in the compensation system involved the negotiation and implementation of broad bands and skill levels for more than one thousand union employees, a process that took more than three years (Giunta, 1997). Virginia Commonwealth University adopted CSU’s successful model in 1996, expanding on the use of competencies by relating them directly to the performance management and pay-for-performance process (Benenson-Farley, Hall, and Giunta, 1997).

Another early initiator of major change in this area was the University of Michigan, which in 1996 implemented MSCALES, a three-tiered compensation strategy that converted 140 position classifications to five functionally defined broad bands and reformed the compensation system “to place value on the skills and competencies exhibited by
technical competencies of a position since technology competency is now a part of most jobs on campus.

The institution must redefine the criteria and competencies by which a job is classified in order to recognize the changing nature of the job and create a more flexible compensation system that acknowledges the diverse skills and responsibility inherent in a job. To be viable, the new system also requires close linkage with market salary data that cross industries and are not specific just to higher education.

the staff in the achievement of business successes" in the IT division (Tibbs, Pryor, and Smallegan, 1997).

State-supported public universities can face special challenges because of outdated and rigid civil service compensation plans and lengthy and bureaucratic hiring processes. When it became nearly impossible to recruit and retain IT professionals in the mid-1990s, the University of Wisconsin and other Wisconsin state agencies brought their plight to the attention of the state's Department of Employment Relations, which responded by creating the Information Technology Compensation Advisory Council. After studying the problems with the existing IT classification and compensation system, the council recommended creation of a broadbanding system that placed "equal value on the actual job and experience and qualifications of the person," a dramatic departure from "traditional thinking in state government, which places value almost exclusively on the job rather than the person" (Duwe and Caruso, 1998, p. 30).

More recently, Duke University undertook an IT staff broadbanding initiative that established a technical career path for IT staff and created a flexible and competitive compensation program. Sixteen salary grades were replaced by six broad career bands, and ninety job titles were reduced to fifteen to emphasize common core competencies (Dronsfield, 2000).
Another successful strategy is developing a salary-grade structure that uses a broadband approach. Such a structure permits a high degree of flexibility to set salary within a broader range, and more ability to recognize individual skills, experience, and value of the contribution to the institution. Further, in actually assigning a position to a grade, an effective salary administration system must consider not only the data collected from internal assessment of the position but also market salary information. This process can be challenging; the goal is to find a constructive balance between internal equity and market competitiveness. (See the sidebar for a description of several universities that have implemented a flexible classification and compensation system for IT professionals.)

Once a salary administration system has been redesigned, it must be reviewed regularly. Historically, systems have been set in place and left to become antiquated. A dynamic and effective salary system is only maintained if it is proactively administered. Periodic review of positions, regular assessment of market shifts, monitoring of turnover trends, and ongoing benchmarking of salary grades and position levels are essential in maintaining a viable salary administration and position classification system.

**Rethinking Other HR Practices**

Even after modifying a compensation system to permit flexibility and to appropriately value skills and experience, the institution might still be unable to offer the top salaries that some other industries pay. Thus the HR department also has to rethink its recruiting and retention strategy, including award systems.

Higher education can market its benefits packages and the quality and richness of the work environment as part of the recruiting process. Stability, challenging and complex work, a collegial environment, a healthy balance between work and life, and the potential for a contribution to be recognized and valued are all pluses in the higher education environment.
A good HR organization also reevaluates alternative reward systems so that it can retain valuable staff, especially during a period when the market is competitive for those employees. Market surges or special campus needs always necessitate institutional response to minimize loss of valuable employees throughout the institution. Among alternative reward programs: a lump-sum bonus or other award to recognize accomplishment on a particular project, a bonus to be paid at a future date to entice staff to stay through a crunch period and possibly beyond (a staying bonus), a merit-type pay system that recognizes differing levels of contribution, and other types of in-kind reward such as a gift certificate or time off.

Conclusion

The kind of transformation required for your institution to survive and thrive in the technology revolution requires enterprisewide commitment to and support of information technology goals. Forging a partnership between HR and IT is pivotal to success. The influence and credibility of the partnership can heighten awareness of the value of IT, facilitating a campus commitment of resources and responsiveness to internal and external drivers of change and identifying areas of vulnerability.

There are many creative strategies for meeting people challenges in the digital age. We recommend these:

- Making the people challenges strategic and a proactive part of process and organizational change
- Remaining attentive to the work environment and employee expectations
- Establishing a campuswide commitment to good people management that ensures competitive salaries and benefits, promotes fair and equitable treatment,
recognizes individual and team contributions, and creates opportunities for professional development

- Distributing IT skills and talent, which entails capturing information about campus employee skills and capabilities so that talent can be leveraged by deploying people on a project team as needed
- Identifying core competencies and offering technology training for everyone
- Creating flexible salary administration and position classification systems
- Rethinking HR practices to attract and retain the most outstanding employees in a competitive market

Your campus HR and IT leaders can encourage an effective response to “technology everywhere” by monitoring and understanding the trends and applying them intelligently and responsibly. This collaborative approach to planning can prepare your institution to respond to changing needs quickly and effectively.

References


