recent years, many higher education institutions, from liberal arts colleges to major research universities, have integrated their information technology (IT) and library organizations. Still more institutions are actively exploring the possibility of doing so. Their reasons for combining the separate organizations range from positioning the institution for the challenges of a digital future to resolving a serious service crisis in one of the existing organizations. In addition, merging library and IT operations into a single service organization simply makes sense from both the user’s and the administrator’s perspective.

The users of these services and resources are often unable to distinguish clearly between tool and content, and they are increasingly confused about whom to consult for help in accomplishing their work. Some merged organizations have addressed these problems by blending the operations of the IT help desk and the library reference desk, by collocating IT and library functions in a single campus location, by undertaking integrated visioning and planning, by fostering joint instructional programs for students and faculty, and/or by designing new professional positions that combine the expertise of librarians and technologists.
Administrators also have legitimate concerns about what appears to be an increasing overlap in the missions, structures, constituents, and budgets of these organizations. Current models for delivering library and IT services at many colleges and smaller universities are no longer sustainable in a world that is rapidly transitioning to digital modes of scholarly communication, teaching, and learning. Continuing current practices for maintaining organizations and allocating funds will result in a diminishing capacity to meet the needs and expectations of faculty, administrators, and students—as well as of prospective students—over the next several years.

An informal group of twenty-five liberal arts institutions with merged IT/library service organizations is actively engaged in dialogue around these issues. The group member representatives—known as the CLIR-CIOs—first met in May 2002 after an invitation from Susan Perry, Director of Programs at the Council on Library and Information Resources (CLIR). Many of the ideas in this article stem from conversations within this group.2

**Why Integrate?**

As noted, the reasons for undertaking an integration of IT and library organizations can vary considerably from institution to institution. Some benefits include reducing the number of service entry points, sustaining currency in design and delivery of new services, avoiding some costs and achieving greater fiscal efficiency (if not actually reducing costs), and creating opportunities for individuals and the new organization to more creatively meet the needs of a rapidly changing institution. Other leading considerations include the following:

- Students and faculty are increasingly relying on networked services and resources for research, teaching, and learning; colleges and universities need to be able not only to offer integrated information access and technology support services but to do so through the Web, using current customer service technologies.
- Synergies among IT and library organizations can be derived from collectively designing and using networked resources, analyzing users' service needs, providing consulting and technical assistance, developing training tools and documentation, and instructing faculty, students, and staff in all of the above. There is considerable value in joint activities: addressing users' rising expectations and demands; retraining staff in new technologies and developing new skill sets; and coping simultaneously with change and with the convergence of both group and individual responsibilities.
- The parent institution can reap greater organizational flexibility, improved campus visibility for technology leadership, increased budget flexibility, combined strategic planning, joint research and development, and new opportunities for professional growth.
- Competition for resources between the existing organizations can be reduced. Competition for staff, for the attention of faculty and students, for budget resources, and for acknowledgment from high-level administration can greatly inhibit cooperation and collaboration between these critical organizations.

On the other hand, merging primarily to save money or reduce staffing will present significant obstacles to success. These motivating factors almost always lead to a downward spiral in service quality and staff morale—a situation that quickly becomes debilitating. As in the major automation projects experienced by many campus sectors in recent decades, little true financial gain is likely to be harvested in the near term. The real return on investment is realized in the long term, through more effective use of existing resources, increased capabilities, and cost avoidance.

**The Dimensions of Integration**

There are many variations on the IT/library integration theme. Organizational integration may perhaps best be seen as degrees of integration along several dimensions rather than as a taxonomy of specific models or types. The circumstances under which an institution integrates are highly local and unique to the institution, so history, personalities, key vacancies, the will of major players, and past and present service experiences and traditions are all important aspects of the process.

Any institution committed to the integration of library and IT organizations should begin by discussing how prepared the participants are for this change and to what extent the organizations are already working together. In doing so, the parent institution should consider four key dimensions:

- The **administrative dimension** characterizes the extent to which administrative responsibilities, governance structures, and budgets are merged in ways idiosyncratic to the institution. Administrative integration encourages more shared information, coordinated planning, and joint approaches to decisions, with the heads of separate agencies reporting to the same person.
- The **physical dimension** represents the ways in which space for people, services, and functions is shared, as well as the proximity of these spaces on campus. With physical integration, the campus community can be offered coordinated services regardless of the
The campus will need to know senior administrative leaders’ perceptions of the degree to which these assets are aligned with the campus culture and the environmental factors that are most fruitful possibilities might reside for leading this effort, and (3) the chances for success.

The outcome of an integration effort cannot be easily predicted. There is no single way to assess prospects for integration any more than there is one proven method for undertaking the integration process itself. However, the experiences of others can provide a good sense of the leading factors and issues to consider, whether one is approaching the issue as an advocate from within a library or IT organization or in response to an administrative vision or mandate imposed externally.

In the end, variations on these themes and the interplay of the four dimensions vary considerably from campus to campus. Campus leaders need to understand and explore these principles through appropriate discourse before making a decision on whether and how best to integrate, and they then need to adapt and tailor the principles appropriately to the local setting.

Leadership and the Role of Senior Administrators
With the right leadership, an integrated organization can become much more than the sum of its parts. With ineffective or inappropriate leadership—that is, leadership that does not match the needs and culture of the organization and institution—an effort to integrate can easily become dysfunctional.

The effective leader for integration, and of an integrated organization, must transcend both IT and library viewpoints by drawing midlevel leaders together and cultivating them as a cadre with common values and purpose. Personal qualities of the leader must include effective communication skills derived from a strong instinct for communication as way of life, a desire to develop others professionally, an eagerness to invest time and patience in the mentoring of others, an ability to demonstrate credibility with existing library and IT cultures, and a relentless drive for bringing about meaningful change.

Cultivating leadership growth at the middle level of the new organization is absolutely essential. Any successful integration effort requires an effective leader to win the hearts and souls of the members of the organization. But the leader will not be effective, and organizational buy-in will be unlikely, unless midlevel leaders emerge as a cohesive, self-sustaining resource for organizational leadership.

How the integrated organization is positioned within the institution is an important decision. The size of the staff and the percentage of total institutional budget devoted to IT and library services will be key. The campus will need to know that these assets are aligned with the campus mission in the most appropriate way. There are several “typical” reporting relationships within integrated organizations, and each has its own merits. In a survey of the members of the CLIR-CIOs group, roughly one-third responded that the leader of the integrated organization carries a title of “vice-president” and reports to the president. In this situation, he or she also sits as a member of the senior staff. In most other cases, the leader’s title is “associate vice-president,” “dean,” or “associate provost,” and the leader reports to the provost. In roughly one-half of these cases, the leader will also be a key member of the senior staff. The level and the title of such a leader obviously need to fit within the campus culture and align with the relative level of importance that information and technology play in the institution.

Once a decision to merge the separate organizations has been made, the nascent organization will need significant support from senior leadership while it begins the long process toward true integration. Each of the following issues has played a role in the success of the integration efforts at a variety of campus settings:

1. Senior leaders must help the campus community understand the reasons for setting out on a path of integration.
2. Leaders must help the staff of the existing organizations understand the value of such integration, as well as the rewards for success.
3. Additional professional-development opportunities might be needed in the areas of change management, appreciative inquiry, cultural change, or leadership training.
4. The institution must be willing to acquire, in appropriate ways, the necessary assistance for its integration efforts. This might take the form of consultants trained in organizational development or process redesign. To gain important insight and ideas, staff members might visit some institutions where integration has already been successful.

The campus will need to know senior leaders’ expectations regarding the timeframe required to achieve meaningful progress. Many benefits of integration will be apparent early on, but the full impact of integration will not likely be realized for three to five years. If the campus has particular time constraints that are more pressing (e.g., the need to implement a...
Senior leaders must provide meaningful and visible examples of their steadfast support for the integration and for the organization’s leadership team.

major new system or service in the next year), it is best for senior leaders to be honest about their expectations in advance.

- The new organization will need flexibility as it adjusts to its new realities. The ability to realign personnel and budgets over time will help the new organization deal with its changing environment. Other campus resources might be required to help with the transition. Senior leaders need to commit to a certain level of flexibility and investment in order to enhance the likelihood of success.

- The case for change should be made clear from the highest levels of the administration. Senior leaders can help set the expectation that some jobs and working assumptions will have to change and that the institution is determined to help people deal with the transition.

- Senior leaders must provide meaningful and visible examples of their steadfast support for the integration and for the organization’s leadership team. The path to integration can be rocky, and there will be missteps and stumbles along the way. Some staff members may feel that they have suffered unnecessarily in the integration; others on campus may feel that critical services have somehow been diminished. Senior leaders will need to help the new organization manage a variety of relationships throughout the change process.

Integration at Three Institutions

Bucknell University

A level of administrative integration has existed historically at Bucknell University, with both the computing and the library organizations reporting directly to the provost. The decision to more fully integrate was made in 1996 by the president and the provost, after fairly wide campus discussion and the work of a special task force. The primary motivating factor for the integration was the fact that the leadership positions of both organizations were open at the same time. The merger began in 1997 with the hiring of a leader for the new organization: Associate Vice President of Information Services and Resources (ISR). Physical integration is still a limiting factor: the staff of the organization is spread across
Most institutions already have some level of cooperation and collaboration between these functional areas, but a greater potential for integration exists on all campuses.

Two different buildings. Yet some staff members have moved between the two buildings, and all public services have been colocated in the “information commons” on the first floor of the library. In the early phases, progress was made in getting the staff of each of the two earlier organizations to understand and appreciate the work of the “other organization.” Meaningful cultural integration began two years into the merger, when ISR's organizational “vision and values” statement was written, and the organization started working to define its new collaborative work environment. The cultural transformation is proceeding extremely well. Success has been the result of many small steps and of an approach that favored “opportunistic evolution” rather than large efforts at wholesale reorganization.

Pacific Lutheran University Integration at Pacific Lutheran University (PLU) has been aided considerably by the location of central IT within the library building. Before the administrative integration, IT reported to the vice-president for finance, and the library reported to the provost. With the formation of Information Resources in 1996, both computing and the library were recognized as academic resources, with the Executive Director of Information Resources reporting to the provost. A year later this leadership position was recast as Dean for Information Resources. The incumbent dean is a tenure-track faculty member with previous experience as a librarian and library administrator. Until recently, integration at PLU has been primarily administrative, with the computing and library organizations retaining separate identities and operations despite amicable relations within the building. Three years ago an integrated leadership group was formed to bring midlevel leaders together in forging a common culture and planning process. This group is now leading the operational integration of key services around an information commons, redesigning shared public spaces, and taking the concept of service integration into the as-yet uncharted territory of integrating several academic support services into the building along with computing and library services.

Wheaton College Campus leaders at Wheaton College began considering the potential benefits of converging library and academic computing services in the mid-1990s. However, uniting all information services into a single organization with a unified vision did not formally begin until 2002, when the position of College Librarian and Associate Vice President for Technology and Information Services was created. This leader of the integrated organization serves as a member of the president's cabinet. The plan for integrating the library and IT service organizations comprises six phases extending over three years. An initial planning phase identified a design team and produced a process map. It also set the stage for learning to respect the skills and responsibilities of various subcultures. A stakeholders' needs/wishes analysis phase addressed fundamental service questions: What services do users value? What services should be preserved in the new organization? What services need to be changed, added, or discontinued? The vision phase worked to define the vision, mission, and values of the new organization in order to provide the greatest level of satisfaction for users and for the parent institution as a whole. The problem phase identified impediments and barriers that, if not addressed, could thwart the ability of the organization to achieve its vision. The solution phase generated creative solutions to both urgent and strategic problems identified in the problem phase. Finally, the plan concludes with an implementation phase, which is currently under way. This phase puts these solutions into practice within the framework of the new organization's vision, mission, and values.

Some Fruits of Integration The twenty-five liberal arts institutions in the CLIR-CIOs group have identified some of the benefits already derived from more closely integrating the services of library and IT organizations:

- Clarifying whom to contact for assistance; merging IT help-desk and library reference-desk services
- Developing and managing the institution's Web presence with greater coherence for multiple audiences
- Increasing collaborative planning and goal setting (e.g., achieving agreement on setting service priorities, understanding better the economic impact of printing and photoduplication policies, centralizing server management, clarifying disaster-recovery requirements, and considering campuswide digital asset management)
- Improving orientation for first-year students and new faculty and staff employees; collaborating to offer training to campus students, faculty, and staff
- Rolling out a new campus initiative (e.g., course management system, geographic information system, or Internet2 access) that would have been offered more slowly or less comprehensively if library or IT had pursued it alone
- Providing improved support and management of a public-access facility (e.g., a computer lab, an information commons, wireless networked access, or a laptop loan service)
- Establishing creative staffing arrangements (e.g., increasing cross-training, sharing interns, or jointly developing staff support for program initiatives)
- Developing campuswide education efforts on the topics of plagiarism, copyright, and intellectual property rights
- Enhancing community relations and outreach (e.g., providing a unified
Web presence for IT/library, publishing a joint newsletter
- Collaborating on grant writing

Closing Thoughts
The changing world of scholarly information, the pervasive nature of technology on college and university campuses, and the rapid pace of innovation in the evolving digital landscape are all realities of higher education today. These phenomena point to the need for the library and IT organizations to work together to support today’s scholars and students in a much more seamless fashion. Most institutions already have some level of cooperation and collaboration between these functional areas, but a greater potential for integration exists on all campuses. The difficult economic realities faced by higher education require each institution to make the best use of the staff and budget resources devoted to these costly enterprises.

Yet the rewards of integration do not come without risks. Organizational transformation is not trivial, and the work required to create collaborative relationships while changing the organization culture is complex and challenging. Dedicated leadership is required from those within the new organization as well as from those supporting it. Yet such mergers are producing a new generation of information services that feature collaborative organizations delivering greatly enhanced services and enhanced opportunities for access to information and resources—services and opportunities that the IT and library organizations cannot offer separately.

Notes
2. The twenty-five liberal arts institutions forming the CLIR-CIOs group are Barnard College, Bates College, Beloit College, Bryn Mawr College, Bucknell University, Coe College, Connecticut College, Earlham College, Hampshire College, Kalamazoo College, Kenyon College, Lafayette College, Lake Forest College, Macalester College, Middlebury College, Mills College, Mount Holyoke College, Pacific Lutheran University, Rhodes College, Sarah Lawrence College, Sewanee University of the South, SUNY College at Brockport, University of Richmond, Wellesley College, and Wheaton College.
3. Gene Spencer, unpublished survey (May 2003) of the members of the CLIR-CIOs group.