Business Planning for Cultural Heritage Institutions

A framework and resource guide to assist cultural heritage institutions with business planning for sustainability of digital asset management programs

by Liz Bishoff and Nancy Allen

January 2004

About the Authors

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Foreword

Collections-based institutions are facing unimagined opportunities and unprecedented challenges as they enter fully into the digital arena. Libraries, museums, archives, and historical societies—often referred to collectively as *cultural heritage institutions*—have amassed physical artifacts and information recorded on physical media for the purpose of providing long-term access to them. Collections-based institutions carefully choose objects of value and interest to some intended audience. They preserve or stabilize these objects, arrange them, curate them, and present them to the public in reading rooms, galleries, and traveling exhibitions, as well as through various forms of surrogacy such as photographs and microfilm.

The work of collecting and serving can be labor- and resource-intensive, but the role that collections-based institutions have played over time in providing access to information, sites for cultural enrichment, and forums for civic engagement are deemed to be absolutely critical to society. The value of these institutions is so high in the public mind that most libraries and museums are able to rely on various forms of subsidy, from both the private and public sectors, to ensure continuity of mission and service. But these forms of support are evolving rapidly in the digital domain, causing some institutions to look anew at models for sustaining their work.

Before the advent of new information technologies, libraries and museums operated under significant constraints in providing access to their collections. Opportunities for use of their collections have been limited by time and space, with surrogate use through photographs, document delivery, and other forms of reformatting often filling the need to serve materials remotely and at times other than core operating hours. Libraries and archives, and museums and historical societies in particular, have been able to parlay that scarcity of access into value and branding. Economic models, together with the cultural and legal policies needed to reinforce behaviors supporting those models, have been crafted and honed over the decades to encourage philanthropic and public-sector support. This support has kept libraries and museums open and accessible to their varied publics without making the users bear the brunt of the operating costs directly.

Now, with the power of technology to widen access, library and museum missions of access are suddenly much more easily achieved. But the policies, business models, and ethical and other professional assumptions that have regulated the analog realm are not sufficient for the digital age. While new funds are available to put collections online from a number of public and private sources, most of the institutions that are reaching out to new audiences find themselves facing organizational challenges that they are unprepared to meet. Among the frequently cited problems is that of developing a sustainable business model. How, museums and library managers ask, can we provide digital services within our traditional business model? And if we cannot provide these services under our present model, then what model should we adopt? How do we compete with for-profit providers online?

At a meeting funded by the Institute of Museum and Library Services (IMLS) and convened by the Council on Library and Information Resources (CLIR) and the National Institute for a Networked Cultural Heritage in February 2001, participants mapped the gaps between mission-related ambitions and current models for sustainable digital enterprises. Specific recommenda-

tions to address some of these gaps emerged from those deliberations. As reflected in the report of that meeting, *Building and Sustaining Digital Collections: Models for Libraries and Museums*, these recommendations are to

• study the costs and benefits of interinstitutional collaboration through case studies;

• develop criteria to assess institutional readiness to engage in digital projects and programs; and

• develop a framework for business planning, a template that lays out the major elements of that framework, and a guide to applying the template in the context of cultural heritage institutions.

To follow up, CLIR, with generous support from IMLS, commissioned a guide to business planning aimed at those cultural heritage institutions not used to doing such planning in the explicit and systematic ways common among for-profit enterprises. To prepare the guide, CLIR turned to Liz Bishoff and Nancy Allen, both distinguished in the digital heritage community as a result of their leadership in building one of the most successful collaborations in this arena, the Colorado Digitization Program. Taking as a starting point a business-planning model developed for CLIR by business consultant David Rodgers, Bishoff and Allen refashioned and refined the template for the museum and library context. They also conducted a series of case studies to "test drive" the template and to glean the qualitative information that makes any planning document useful to those in the field. The result is a richly detailed report that provides many insights into the barriers libraries and museums face in matching aspirations to resources.

When Bishoff and Allen looked at the original business-planning template, they quickly realized that most libraries and museums routinely carry out some or all of the activities that are part of a sound plan. But these institutions, the authors realized, have often arrived at their particular way of doing business in an ad hoc manner. Furthermore, the language of most business planning is foreign, and frankly off-putting, to many in museums and libraries. Bishoff and Allen have paid special attention to this "translation problem" and have taken pains to point out the many ways in which libraries and museums are already implementing many key elements of sound business planning.

One of the signal contributions that these authors have brought to this endeavor is an ability and willingness to articulate what can be learned from experiments that fall short of their targets. Learning from failure is not much talked about in cultural heritage professions, oriented as they are toward service. But libraries and museums embark on a great experiment when they venture online with their collections, their curatorial expertise, and their institutional reputation and good name. The fine sensibilities that Bishoff and Allen have brought to this study were crucial in encouraging many institutions and individuals to volunteer their time and energy to be interviewed.

CLIR is deeply grateful to Nancy Allen and Liz Bishoff, to the many individuals who agreed to be interviewed, and to the leaders of IMLS, who are committed to ensuring that the grants they give to advance digital heritage development are sustained and supported over time.

Abby Smith
Director of Programs

INTRODUCTION

Digitization is still relatively new. . . . We are not yet able to take a long-term view of the life cycle of a digitization project, hardly even a medium-term view.

National Institute for a Networked Cultural Heritage 2002

Most cultural heritage institutions[1] are mission-driven; their primary purpose is to support and promote the public good. It is in this way that they distinguish themselves from for-profit organizations, for which creating shareholder value, measured in terms of profit, is a primary goal. Whether for-profit or not, all organizations must find funding, both in the long term and short term, that meets or exceeds their operating costs. In the educational, governmental, or other nonprofit world, *self-sustaining* often means relying on an acceptable level of funding, with any excess revenue over expenses being used to support mission-related activities or to weather hard times. Nonprofit organizations generally do not stray from their missions in order to generate additional revenue streams. However, none of this exempts or isolates these organizations from many of the same strategic or operational issues faced by for-profit organizations and the consequent need to find effective mechanisms for dealing with them. What is different—very different—are the issues nonprofit institutions, and in particular, cultural heritage institutions, face in considering sustainable approaches to the management of their intellectual assets, both digital and physical.

The purpose of this document is to present a framework and resource guide to help cultural heritage institutions plan sustainable access to their digital cultural assets and to do so by means that link their missions to planning modes and models.

"Sustainability . . . refers to all the considerations that go into maintaining the institutional context for creation and maintenance of digital objects and resources, and supporting . . . long-term viability" (NINCH 2002, XI). This guide assumes that a successful business strategy will be consonant with an organization's goals and mission,

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[1] In this document, the term *cultural heritage institutions* refers to libraries, museums, historical societies, and archives.

while also enabling the organization, through sound business practices, to flourish in the community it serves.

A business strategy is unique to an organization, sometimes unique in time, and always shaped by the cultural values of the stakeholders, constituencies, and communities the organization serves and by marketplace considerations. The definition of business strategy as "the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals" (Chandler 1966, 16) applies especially well in the nonprofit environment.

The literature on business planning for nonprofit organizations is extensive, although not as abundant as is the literature in the for-profit business-planning environment. There is a significant body of work that refers to organizational development, management, fund raising, legal, and accounting and financial management issues for nonprofit organizations. There is also a large body of work that focuses on strategic planning specifically for nonprofit organizations.[2] In addition, both the library and museum communities have developed materials to guide professionals in strategic planning, general management, marketing, legal issues, fund raising, and financial management. These materials, when used in combination with the general nonprofit management resources, provide a rich set of resources to assist the library, archive, historical society, and museum manager. This report is not intended to duplicate these resources. It does, however, challenge certain types of thinking and behavior often encountered in the nonprofit sector, such as

- the assumption that nonprofit enterprises do not need to be concerned with sound business practice
- the tendency to base business-related projections on wishful thinking, assumptions, or professional opinion rather than on studies of the market and the competition
- the tendency to engage in strategic-planning processes that lack a business-planning component

Each cultural heritage organization should be mindful of developing business-planning activities within the context of its mission, goals, audiences, and public-good programs. Without such a plan, no cultural heritage institution can be sustainable, no matter how compelling its mission or treasured its collections.

To aid cultural heritage organizations in the business-planning process, this resource will

- provide a framework to demonstrate the role of business planning in the context of organizational planning
- introduce traditional business-planning elements in the context of their relevance to cultural heritage organizations and their digital asset management programs

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[2] Any academic library supporting a business degree program or any public library with a business development collection will have some of these resources. As a starting place, use the Library of Congress subject headings, Nonprofit Organizations, Strategic Planning, Marketing, or Business Planning, or refer to some of the works listed at the end of this document.

- discuss trends in business planning and efforts to sustain programs in digital asset management that are based on survey research
- provide a template to help cultural heritage organizations launch a business-planning process that addresses specific elements contributing to the sustainability of both the digital asset initiative and the overall organization. This template is illustrated with examples drawn from interviews conducted during survey research.

PLANNING FRAMEWORK

To engage in business planning, cultural heritage organizations need a framework to guide the analysis, strategy, and planning activities that are appropriate to their public-good missions.

Methodology

Whether or not cultural heritage institutions engage in business planning, they do regularly engage in strategic planning, using a variety of processes.

Therefore, the planning context in which business planning takes place is familiar to most libraries and museums. A business plan is the natural outgrowth of an organizational planning process—a process that is both holistic and ongoing. A survey of the literature reveals there are about as many methodologies for developing business plans as there are templates for them. Almost any of these methods is adequate to the task, and selecting one is a matter of purpose, timing, or organizational or personal style and preference.

This document proposes a business-planning template designed for cultural heritage institutions engaging in digital asset management programs and services. According to this model, the identification and analysis of issues that lead to the development of a strategic plan should be followed by the development of a business plan.

The chart on the following page, based on an illustrated discussion of strategic planning in Bryson (1995, 24-25), lists the components of the planning process and describes their purposes.

This guide identifies two basic models of managing cultural heritage digital access: one for individual institutions, and one for partnerships and collaborative undertakings. Examples of these models, drawn from a telephone survey about current business-planning practices used by a variety of libraries, museums, and historical societies, are presented throughout the guide.

Providing details of the planning process as they apply to any specific organization, program, product, or service is beyond the scope of this document. There is no single recipe for success. Each planning process will be shaped by the organization and its stakeholders, constituents, needs, and culture. Although different organizations will take different approaches with different emphases, most successful efforts will have the same general set of components.

Planning Process for Nonprofit Organizations

COMPONENT	PURPOSE
Internal Constraints	Detailed, point-by-point identification and analysis of the organization's *mandates*.
External Constraints	Detailed, point-by-point identification and analysis of *external factors* that are Strengths, Weaknesses, Opportunities, and Threats (i.e., a SWOT analysis).
Mission Analysis	Description of the organization's purposes and, in many cases, its values. The mission and mandates combine to provide the reasons the organization exists and the needs it fills.
Stakeholder Analysis	Detailed analysis of the value proposition[3] for all entities that influence or have a stake in the resources or output of the enterprise or are affected by results achieved by the organization. This includes defining who the stakeholders are and how they will judge the performance of the organization.
Mission Statement	Short, actionable, inspiring statement of philosophy, purpose, goals, values, and culture that identifies the organization's sustainable competitive advantage.
Strategic Plan	Analysis that describes the best fit between an organization and its environment. A response to the strategic issues identified from the stakeholder perspective, through analysis of the mission, and from the external environment, along with ways to manage the strategic issues.
Business Plan	High-level description of how an organization will implement its strategic plan, for the organization as a whole or from the perspective of a specific project or product.
Operating Plan	Specific description of the business plan for a defined period of time (typically 12 to 18 months).
Vision for Success	Description of the way the organization will look when the business plan is fully implemented.

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3 In the classic business environment, a *value proposition* refers to added value, or opportunity for favorable return on investment, for a stakeholder group. The meaning of this concept in the context of nonprofit organizations is discussed on page 18.

Readers are encouraged to consult the works cited by de Wit and Meyer (1998) and Bryson (1995), as well as other material in the References, for additional guidance on constructing a planning process, milestones, and schedules for their own organizations.

Mission and Business Practices

Many early digitization initiatives were undertaken to learn about the new technology; they were not necessarily clearly linked to the organization's mission, goals, and objectives. The business-planning process requires planners to consider whether the purpose of the digital initiative advances the organization's mission and goals. Although business planning is important to an organization's strategic planning, it is also critical to the sustainability of the digital initiative itself. Planning for each initiative should therefore be placed in the context of the organization's overall plans and purposes.

It is assumed that most readers of this guide work with educational, governmental, or nonprofit organizations that have educational or research missions and a 501c3 tax status from the Internal Revenue Service. The revenue base for these organizations includes federal, state, and local taxes; donations; tuition; visitor receipts; and income from publications and other products and services, including gift shops. The analysis done for the preparation of this report found that digital initiatives within the cultural heritage community are usually established as an additional service or product of the institution, rather than as a separate business unit. However, there are models, such as the Art Museum Image Consortium (AMICO), in which a collaborative effort resulted in a separate nonprofit business entity. Organizations interested in establishing a separate business entity could use the business-planning template presented in this guide or any of the other resources available to assist in creating not-for-profit businesses.

Modes and Models for Organizational Planning

Planning modes and models generally fall into one of three types, or a combination thereof.

- **Rational**. Based on use of data and logic, usually top-down in approach, moving from goals, to policies or programs, and, finally, to actions. This type of planning is typically seen in the corporate world.
- **Political**. Based on issues, by definition involving conflict where no consensus exists, usually bottom-up, building on political decisions to develop policies, programs, and goals. Service organizations, such as public libraries, parent-teacher associations, or the Red Cross, typically use political-planning models.
- **Creative**. Based on imagination, intuition, and vision, with the assumption that analysis, strategy, and planning problems are complex, and that unorthodox solutions are the preferred outcomes. Organizations that use creative-planning models include Brewster Kahle's Internet Archive and some biomedical research firms.

In educational, governmental, and other nonprofit organizations, conditions usually favor the political or creative process over the rational. Because success in such organizations is not always measured quantitatively—i.e., by financial statements, numbers of goods shipped, or products sold—the rational process seldom drives the change. Nevertheless, it is often possible to begin with a political or creative process to develop a consensus and then to blend these components into a rational process that moves to closure on actions and next steps.

Bryson (1995, 52) advocates active participation in planning by top policy makers, decision makers, and middle managers likely to be charged with managing the outcome and by staff charged with doing the work, as well as by outsiders such as donors, funders, and the public. Whatever planning configuration and process is adopted, its principal purpose is to clarify desirable outcomes and focus attention upon what is important to the successful operation of the organization.

Strategic problems are those that lend themselves to more than one solution or course of action. Strategic planning is the process of resolving strategic problems. It involves more than making simple choices from among clearly differentiated alternatives. It is critical that cultural heritage institutions be able to weigh one set of choices and outcomes against another and to follow this up by modeling business plans that can support one choice or the other. For example, an organization might have to choose between digitizing a collection for use by museum staff and creating an interactive visitor exhibit and kiosk. Strategic solutions are choices that positively influence other factors and thereby lead to desired results.

Organizations and Community Involvement in Planning

When engaged in planning and decision making, the organization's managers and staff are accountable to constituencies of several kinds. These constituencies include external audiences or markets (library users, museum visitors) and informed and affiliated individuals and bodies, such as governing boards, advisory bodies, volunteers, and donors. Typically, decision makers are insiders. The entity engaged in planning might be the overall organization (university, library, or museum) or one of its subdivisions, such as the digital resource unit, a new service program based on digitization activities, or staff of a digital collection that will serve a new audience. The library world tends to use the word *stakeholder* in a general way for any group that cares about, or can influence the outcomes of, the organization. The museum world tends to use the word *constituency* in the same way.

The greater the number of constituencies, the more difficult it is to achieve a consensus and the more likely will be the need to resolve strategic issues with political solutions or to make decisions on the basis of a distinct plan for each constituency. Resolving these issues requires a range of negotiating skills and, potentially, compromise among all participants. The digital product or service, unit, group,

or entity created by a library or museum has insider decision makers and stakeholders, yet those groups are accountable to the external communities that are designated as markets or users of the museum or library.

Both business and strategic planning require an exploration into the needs of the organization's external communities. Market research, needs assessment, and market segmentation are vital to successful business plan development. If that is not done, decisions may not be appropriately informed. For example, they could be based on faulty assumptions, political thinking about the influence of internal decision makers, a drive for consensus across divergent constituencies, or other factors not necessarily related to the public mission of the organization.

Planning: Models for Sustainability

While the goal of an organization or a unit within the organization might be to offer a self-supporting product or service (such as printing from digital objects), an organization or unit might not necessarily be responsible for recovering all costs associated with the creation of that digital object or for generating excess revenue over expense. A decision may be made to operate the unit at an agreed-upon level of subsidy for a specified period or as a permanent cost center. The only requirements for a successful outcome is that there be a shared understanding of financial expectations at the outset, that entities responsible for providing the subsidy be identified and agree to their roles, and that the planning process account for whatever long-term vision for self-support is adopted for the organization or unit.

Subsidy is not the only notion of support adopted by cultural heritage organizations. If a cultural heritage organization is engaging in digitization projects that are designed to create Web-based access to its collections, it is desirable that those projects contribute to the sustainability of the organization as a whole. Even if the digitization program is entirely funded from the operating budget of the parent organization and exists wholly as a cost center, the digitization program could lead to increased revenue for the parent organization by such means as attracting more visitors to the museum or drawing new or increased corporate sponsorships.

This idea of a discrete activity within a cultural heritage institution, which itself may be engaged in partnership or collaborative business models, can result in a complex strategic- and business-planning environment. These environments demonstrate various notions of sustainability. For example, the University of Michigan digital library unit is financially supported by central library funds and initiative funds. John Wilkin, associate university librarian in charge of the Library Information Technology Division of the University of Michigan commented, "We received $300,000, in addition to other base funds, and we reallocated some personnel from open positions, bringing total base staff funding to more than $600,000." Michigan's Library Information Technology Division will be able to grow and

change, depending on internal needs (funded by internal funds) and external needs (supported at least in part through external revenue sources.) A second model is represented by the Nebraska Historical Society, which established a separate digital imaging lab within its Gerald R. Ford Conservation Center. Although the lab is part of the society, it must generate its own funding to support staff and infrastructure. Jill Koelling, head of the lab, reported that "we had a written plan for the [1997 Ameritech grant] and a business plan for [the] digital imaging lab . . . we set it up, so [digital lab] people won't be paid by state funds, but by money generated from the lab . . . that's why we did a whole business plan—to make sure we could make the lab run in the black." The lab also received private funds for the digital technology at the center.

A cultural heritage organization typically supports a range of core services, such as reference service in a library or collection services in museums, none of which is self-supporting through generation of revenue directly applied to the costs of the activity. At this point in time, services related to digital assets are not generally considered to be core services. Eventually, however, visitors and users will probably expect that technology-based access to content be a core service. Cultural heritage organizations will undoubtedly evolve their thinking about the strategic value of digital asset-related services and will be more likely to include these products and services among their core services.

Identifying a Sustainable Competitive Advantage

In *Successful Marketing Strategies for Nonprofit Organizations*, Barry McLeish writes, "Competitive advantages are those qualities of programs or services offered that distinguish your nonprofit organization from other organizations offering similar programs or services." These advantages come in a variety of forms, including the following:

- services or programs of the highest quality available
- the most reasonably priced services or programs
- the most experienced staff
- the most variety of services offered
- the most highly endorsed services or programs (1995, 31)

A principal benefit of the business-planning process is that it helps identify a sustainable competitive advantage that can serve as a basis for building and maintaining the organization. Organizations that want to survive must be able to adapt to change in the external environment, to improve on past programs, and to do new and different things—to cope with change. This implies an ability to innovate and to market an organization on the basis of some combination of content, brand, customer service, and cost. Featuring on the Web unique resources that create a competitive advantage can be an attractive element of strategic planning for museums and libraries. A sustainable digitization program can be a strong element in the creation of organizational identity and of a reputation in the community

of visitors or users. Museums do compete within their communities for visitors, and many types of libraries compete for resources within their parent organizations (city government or universities or colleges); they therefore often need to explore this concept of competitive advantage as part of their overall sustainability strategy.

Planning Sustainability

Selecting a method or methods of finding sustainability is another strategic decision facing educational, governmental, and nonprofit organizations and the enterprises they host. While some organizations can reallocate existing resources, or redirect effort, this must often be accompanied by consideration of ways to raise revenues that contribute to sustainability. Libraries and museums that have transformed grant-funded projects into ongoing digital resource programs generally seek to reallocate current resources while also searching for new resources. The following sections address some of these non-grant-based revenue sources: sponsorship and advertising, partnerships, and foundations and donors.

Sponsorship and Advertising

Sponsorship and advertising are important ways for cultural heritage institutions to generate revenue. Sponsorship is valuable not only because it brings in funds but also because it implies an endorsement of the institution's mission by another entity. An institution generally nurtures relationships with sponsors in much the same way it does its relationships with outright donors. Recruiting sponsors may be done as a part of a larger fund-raising or development effort that seeks donations from corporations, foundations, and individuals on an annual or major-gift basis. The Exploratorium[4] in San Francisco provides opportunities for corporate sponsorships that include a full range of advertising and marketing campaigns and public relations options. Sponsors can have on-site signage and banners, and their corporate materials may be included on the museum's Web site or in links from it, in its product displays, and in its customized promotions. To entice sponsors, the Exploratorium provides demographics on the museum's membership, Internet visits, and on-site visits. The concept of corporate sponsorship of in-museum exhibits is migrating to sponsorship of Web-based exhibits. Advertising involves expense (the library or museum has to pay for ads). But if the advertising campaign is successful, the expense is offset by revenue generated by increased sales or rising demand for services. In the case of museums, advertising encourages visits, resulting in gate fees, cafeteria sales, and shop sales. It also generates the interest of potential donors and sponsors. Advertising is done as part of the public relations, marketing, and promotional activities of libraries and museums. In developing a plan for generating revenue, it is essential that the development and marketing departments coordinate their efforts.

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4 The sponsorship area in the Exploratorium Web site is http:// www.exploratorium.edu/support/sponsorship/index.html.

Libraries and museums may look at sponsorship as an element of their annual-giving campaigns. Many university libraries, for example, have events, friends' groups, or other methods of reaching out to supporters for annual funds. Annual-giving programs undertaken by museums and libraries, however, may extend far beyond the seeking of sponsors. Telethons, mailings, pledge campaigns, or even memberships may be regarded as annual fund-raising methods appropriate for libraries and museums. Some of these activities might be especially appropriate for obtaining support for a digital asset management program because of their content affinity with certain funders.

Partnerships

Partnerships and collaboration are increasingly common elements of a sustainability strategy for cultural heritage digitization initiatives. Granting agencies such as the Institute of Museum and Library Services (IMLS) and other federal and state agencies are encouraging partnerships in building digital library and museum collections. Funding agencies see both political and practical reasons for encouraging partnership. Politically, federal funding can leverage funding from many partner entities and show governmental bodies that cultural heritage organizations and the higher-education sector can collectively engage in work with high-profile outcomes that are in the public good and thereby help justify future funding. By encouraging partnerships, funding agencies have helped demonstrate that the digital approach to collaboration can create single, publicly accessible Web-based resources that are easier to find and use than they would be in the absence of cross-institutional collaboration. With such federal and foundation encouragement, there are more efforts at partnership between libraries, between museums, and between libraries and museums than ever before (Allen and Bishoff 2002).

Rackham, Friedman, and Ruff (1996) have identified three characteristics common to successful partnerships:

1. vision: a compelling picture of possibilities and, specifically, how to get there
2. impact: the addition of real productivity and value; the ability to produce tangible results
3. intimacy: closeness, sharing, and mutual trust; a level of closeness that moves far beyond transactional relationships

"Partnering organizations succeed when they actually achieve results, develop a close, almost seamless, relationship, and have an articulated, shared view as to what they can accomplish together. In short, it is when impact, intimacy, and vision come together that partnering works" (Rackham, Friedman, and Ruff 1996, 24).

These authors offer the following pointers on partnerships:

• Both parties have to change the way they do business to maximize collective impact.
• In a successful partnership, the pie gets bigger and is more equally distributed.

- Partnerships start by spending and allocating resources.
- Partnering entities must look toward the partners' customers, direction, and market.
- Mutual competitive advantage is an outcome.
- Partnerships define powerful, durable ways to work together.
- Information sharing occurs on an expanded level and in relationships at all levels of both organizations.
- Partners should begin by finding easy entry points on vision, impact, and intimacy and then move on to more-complex areas, as long as the prospects for success in all three areas (vision, impact, and intimacy) are good.
- Productivity improvement often lies not within a single organization but at the boundaries between organizations.
- If the intent is innovation, partners should start with research and development, not sales functions.
- Partnership is about more than getting a better price or a long-term revenue stream.
- Partnerships don't work as short-term strategies.

While not all these points apply to cultural heritage collaboratives, many do, particularly those related to changing ways of doing business. "As digitization moves from small discrete projects conducted within individual institutions to larger multi-departmental, multi-institutional, and international programs, collaboration becomes an increasingly vital consideration" (NINCH 2002, IX). Funding, creation, and sustainability of digital surrogates, and access to them, increasingly depend on arrangements in which institutions work with each other.

The key to success is to find a compelling shared goal with real added value and to orient the partnership and its opportunity-seeking activities around it. Successful partnerships can also be built around goals that may not be equally important to each partner but that each organization can support on behalf of the other. Partnerships as a sustainability strategy work when each entity can contribute resources to the areas held in common. Betsy Wilson, director of university libraries at the University of Washington, provided a good example of such a partnership between the university and the Eastern Washington Historical Society (EWHS): "EWHS didn't have expertise in scanning and metadata; we could provide that. We didn't have expertise on the Plateau Indians. The historical society made selections from their collections, bringing expertise to the project on the collections. They also did the publicity. They didn't contribute technology, but we have incredible technology."

Other partnerships have broader consortial benefits. For example, the Museum Online Archive of California (MOAC) project, which involves 11 museums participating in the California Digital Library (CDL), not only created cross-museum access to related collections but also focused on building expertise in the California museum community so that each institution has increased capacity for generating digital resources for public access. This type of consortial

partnership is also fundamental to the model of statewide collaboration represented by the Colorado Digitization Program (CDP), which provides training to build digitization capacity while encouraging libraries and museums with collections in similar content areas to partner on the creation of cooperative Web-presented collections.

Foundations and Donors

Donors are key stakeholders and constituents for most educational, governmental, and nonprofit organizations. An individual donor may be persuaded to endow some ongoing costs, as well as up-front costs, of a new nonprofit organization as part of a startup package, much like venture-capital investors infuse capital in the for-profit environment. However, it is unusual for donors to give funds for the operating costs of a university or museum; most tend to donate to specific purposes. Foundations generally fund program innovation or improvement, not organizational development or core operating costs.

Nonprofit organizations. Nonprofit organizations face some fundamental challenges in developing funding for digital initiatives. Imagine, for example, that a nonprofit organization decides to approach a foundation for money to anchor a digital project or service at a level of $100,000 per year for four years. The organization's business plan calls for two or three years to establish its program and attract a second round of funding at $100,000 per year, with the expectation that it would be self-supporting after the fourth year. Foundations typically operate on one-year cycles, with the tacit assumption (but no commitment) that they will renew support for no more than two or three years. They work this way for several reasons. The first reason is to meet federal requirements that they pay out 5 percent of their assets annually. The second is to discourage their nonprofit grantee organizations from becoming dependent on their support. The third is to preserve the foundation's ability to change funding priorities, thus accruing the public relations benefit associated with a more diverse portfolio.

In terms of sustainability, receiving a foundation grant or a one-time major gift from an individual is not much different from working with one-time grant funding from any source. Project directors, museum directors, and library directors usually need to prepare one- to three-year grant budgets for donors and funding agencies while keeping the long view for other fund-raising opportunities and for business planning for sustainability. Nonprofits often balance numerous short-term funding opportunities with longer-term strategies. Returning to the example in the previous paragraph, assume that in year 2 and year 3, the organization receives an additional $100,000 in grants on one- to two-year terms. The difficulty comes in year 3 or year 4, when the project manager or management group realizes that additional and ongoing funding will be needed to maintain current services, avoid layoffs, or keep the doors open.

In the past, such a problem could be remedied by securing additional donations or grants from federal, state, or local sources. However, in an era when there is less federal and state funding,

more organizations are applying for these grants, and fewer foundation dollars are available because of poor market performance in foundation endowments, the nonprofit organization has to rethink its reliance on these funding sources. Sustainability planning offers a solution.

Educational and governmental cultural heritage institutions. Educational and cultural institutions face constraints similar to those facing their nonprofit colleagues; one difference is that the fundraising activities of the former may be undertaken by their parent organizations. Generally, educational and governmental cultural heritage institutions cannot raise operational monies, with the exception of funds that can be obtained through grants or endowments. Donors and foundations generally fund specific program enhancements. Many major digitization initiatives have been funded through foundations, and many museums and libraries have initiated their digitization programs through grants. Sustaining programs through donations and grants, however, is not a viable plan. A federal subsidy should not be the sole source of funding for any digital asset initiative.

Some nongovernmental funders will respond to the current environment of reduced funding by forming longer, deeper relationships with selected grantees. Cultural heritage institutions need to identify such organizations and approach them with plans that clearly identify organizational needs and provide compelling cases for longer-term support. These proposals should include a solid business plan and a credible plan for achieving sustainability.

Funders must understand that cultural heritage institutions are not, and are never likely to be, attractive for-profit activities. If funders are interested in the mission of libraries and museums, they will have to work with these institutions in new ways to ensure their futures, without trying to persuade them to change their missions just to secure funding. Libraries and museums feel strongly about this point as they consider options for sustainability and undertake business planning. Business planning will benefit the cultural heritage organization when such planning is based on an overall strategic plan and when the organization is clear on its mission, vision, values, and goals. *The business plan for digital cultural heritage asset sustainability does not have to compromise any elements of the organization's overall plan.*

Business Dilemmas

The fundamental principles on which planning is based can present dilemmas for organizations selecting a planning approach, and these dilemmas are not easily resolved. For instance:

- Public and academic libraries generally find it unacceptable to sell or otherwise profit from their digital or physical resources.
- Museums may consider competition with other museums for visitors a major issue; for libraries, however, competition is seldom a key factor in planning. In fact, libraries base many services on

collaborative efforts with other libraries in their regions or with similar types of libraries.

• Libraries and museums need to expand efforts in market research. Libraries generally do not consider their users in the same way in which other not-for-profit organizations consider their markets or customers. In fact, within the library community, there is an ongoing controversy about what to call a "user." He or she might be called a patron, a visitor, a user, a client, or a reader. The library literature reflects the somewhat more-than-semantic concerns reflected by the choices of language. Museums are fairly uniform in calling their primary markets visitors; they are more interested in putting visitors into categories than are libraries. Museums must have a good understanding of their markets to develop strategies to maintain or increase gate receipts, an essential source of revenue. Libraries do not have this problem.

• Both libraries and museums have concerns about making services available free of charge and, conversely, about charging for anything.

In short, libraries and museums present some interesting variations for the typical guides to success for nonprofit organizations.

The examples just cited are only a few of the viewpoints that must be taken into account when launching a planning process that includes business planning for sustainability. Business planning must fit the organization's internal and external environments. Business planning must also be based in both the present and the future.

GENERAL PRINCIPLES AND PRACTICES

The following sections give an overview of some standard business principles and practices as they apply to cultural heritage organizations and other nonprofit entities.

Environmental Scanning

The environmental scan is perhaps the most general of all business practices that are likely to influence organizational success. Knowing about economic, social, technological, environmental, and general business trends is likely to support an organization's long-term planning effort and the development of strategies for success. Environmental scanning allows an organization and its leaders to look into the future.

This topic energetically addressed by the former Secretary of Labor Robert Reich in his book, *The Future of Success* (2001). He points out a number of trends in society and business that have bearing in the nonprofit world of cultural heritage organizations. For example, data on the work habits of residents of the United States show that the amount of leisure time available for cultural heritage visits or li-

brary use has declined. Families are having fewer children. Technology is the engine behind much of the change in the workforce and in communities, but it does not explain it all. When the refrain, "better, faster, cheaper" seems to be ubiquitous, how can a museum, historical society, or library capture the attention it needs to be sustainable?

Successful Products and Businesses in the Digital Asset Environment

How did the QWERTY keyboard come to be the standard? How does innovation settle down into something reliable? When an idea is new, there is a lot of innovation in product development. At some point, a *dominant design* for the product or service category emerges. This triggers a shift in the pace of innovation, and the number of competing firms drops. The remaining organizations provide commodities that are not easily differentiated. They compete on the basis of providing the product or service faster and cheaper (Utterback 1994).

In the digital library and museum communities, this process translates into a different pattern with the highly desirable result of promoting interoperability across independent platforms, as the concept of dominant design is replaced with the concept of "best practices" that are based on generally accepted standards. While the library and museum communities are involved in arriving at best practices, it happens for each cultural heritage community at a different pace, and different issues affect agreement on the best practices. Libraries and museums never see the emergence of a dominant design in commodity or business-practice terms, because each one has unique content to contribute to the digital asset world available through the Web. Therefore, while the entire concept of market consolidation does not apply, best practices emerge through a similar process in both types of organizations.

At the outset, early adopters advance a new activity. If these early efforts are successful, a period of rapid adoption by others follows. At the next stage, nearly all organizations are engaged, at least to some extent, in the activity. Given this pattern, the challenge in building a successful business plan is to define successive activities with which to repeat new activity-adoption patterns, scaling activity upward for increased production. One example of this adoption process can be seen in the implementation of the Dublin Core metadata standard for describing digital objects. Today, many library and museum digital imaging modules support Dublin Core as the metadata standard. While more libraries than museums are now involved in digitization activities, many still do not have online collections (IMLS 2002, 5). This is because of the cost of such activities; a lack of knowledge of issues related to digitization standards, project planning, and the like; and the fact that the entire community has not yet caught pace with the early adopters. It will be quite some time before this adoption pattern, so well established in the business world, takes hold in the world of digitization for libraries and museums.

Nonetheless, the influence of early adopters is highly significant.

Funding agencies such as the National Science Foundation (NSF) and IMLS are supporting the early adopters to enhance the likelihood of emulation and the development of best practices, recognizing that such developments will make it easier for more organizations to bring their collections online. Cultural heritage institutions are expanding into digitization activities and the markets associated with them.

"Build or Buy" and Outsourcing

Organizations continually need to balance the richness that comes with diversity and innovation against the need to spend resources wisely. This is particularly true for organizations that engage heavily in research or experimentation. Experimentation admits both success and failure as outcomes. Standardization lowers risk and overall costs, at the expense of breakthroughs in new forms of learning and practice. There is a natural tension that requires a persistent balancing effort. Innovation and experimentation may be applied to one component of a technology-based system; savings through standardization, outsourcing, or use of commercial software (instead of developing customized, in-house solutions) might be necessary in another.

One often-debated issue, particularly in large academic research libraries, is whether to build or buy technologies and services; for example, whether to purchase software or create it, or whether to outsource conservation and binding or create in-house facilities. An institution should aim to provide appropriate quality and access to digital resources by weighing in-house application development or use of open-source software against the adoption of commercially supported products until the time when a commercial-based quality product becomes available with appropriate capability and a reasonable cost, or until the organization is positioned to absorb the costs of developing and supporting the technology in-house.

The challenge is to determine the criteria on which to base such choices. Libraries and museums can choose from among many models for in-house product development (e.g., for interfaces, search engines, image creation-and-management systems, inventory management systems). There are also many choices for commercial outsourcing. Solving the build-or-buy dilemma requires assessing products on the market as well as analyzing the nature of the organization. Major research universities have developed their own digitization tools and solutions, not only because they had the expertise and resources but also because they had a pre-existing culture of research and experimentation. In the last year or two, many new products that are suitable for cultural heritage institutions, including several developed by universities, have come onto the market. These products have reduced the need for in-house development, except in specialized areas, such as complex multimedia or rare languages. Even the large research university should analyze available products before committing to an in-house development effort. Most other organizations should focus on assessing commercially available products and services. Cultural heritage organizations lacking sub-

stantial in-house technical staff should be fully informed about the staff requirements of using open-source software products. Although such products offer the latest solutions developed by high-quality technology organizations, they may require considerable time to install, customize, and maintain.

In addition to licensing a product, digitization initiatives may outsource activities to another agency, with quality control being the principal responsibility of in-house staff. Educational, governmental, and nonprofit organizations may decide they are better served by outsourcing, handling only those activities that directly relate to their core competencies. Outsourcing allows an organization to concentrate on activities only it can undertake, such as resource selection; development of pricing, promotion, and marketing strategies; interaction with stakeholders and constituents; and fund raising.

Strategic necessities are capabilities and services that an organization needs to stay in business and that do not differentiate the organization or its digital asset management initiative in the view of its stakeholders. Business systems and network infrastructure are examples of strategic necessities for cultural heritage institutions planning online access to their collections. Strategic necessities are commodities—such as the invisible yet very important infrastructure required to create metadata—that an organization seeks to acquire at the lowest-possible cost. However, even strategic necessities must be chosen carefully, and some institutions may consider outsourcing. For instance, metadata tools must be selected strategically to support the organization's goals for interoperability.

Rate of Creation and Persistence of Information

The rate of creation of information and its persistence (i.e., volatility) differ from one discipline to the next. For example, in computer science, information is created at a high rate but its persistence is low because of rapid technological innovation. In pure mathematics, in contrast, the rate of creation is low but persistence is high—it is not unusual to see results produced in the eighteenth or nineteenth century directly affecting recent developments in the field. Volatility, and its associated costs, are important factors in deciding how to package, bundle, and price products and services.

For cultural heritage institutions, the rate of creation (in the aggregate) of digital objects that make up Web-based collections is high and the need for persistence are high, since most of the organizations providing the collections feel they have a responsibility to preserve and maintain access to the digital resources over time. While the rate of creation is high, in the aggregate, across all cultural heritage communities, each institution should take the rate of creation and its cost, along with the long-term cost of persistence (i.e., digital object preservation strategies), into account in developing a business plan. If the organization is committed to a high level of persistence, it must be selective. No institution is likely to have the resources to create digital access to all artifacts in its collections; consequently, collec-

tion development policies become an important way for an organization to differentiate itself. On the other hand, it is not unusual to see museums or historical societies remove access to digital exhibits (admittedly perhaps not wisely), because providing long-term access to the digital surrogate is not a valued element of their missions. If this is the case, the volatility of the digital collection is higher and long-term costs are lower, although the cost of the high initial rate of creation is not amortized. This idea of volatility of digital collections needs to be reviewed and applied in light of an organization's whole physical collection when that organization is developing a strategy and business models for online access.

Pricing Strategies Related to Value

The value of a library or museum is established by its visitors and users. "From an organization's perspective, pricing differentials represent a spectrum designed to fit different market segments. Prices should be designed to capture the different perceived values of the offering among the segments served" (Kotler and Kotler 1998, 264). In the classic business environment, the term *value proposition* refers to added value, or opportunity for favorable return on investment, for a stakeholder group. This concept applies well to the educational, governmental, and nonprofit business arena, since each market and each stakeholder group has a value proposition. Different value propositions involving distinct values and benefits usually exist for different stakeholder groups (e.g., patrons, faculty, visitors, students, board members, staff, sponsors, funders, donors). Each group will recognize a different degree of added value for the project or service. For instance, a data set prepared by the library for researchers is likely to have limited value for the K–12 community, and while the pre- and post-visit lesson plans prepared by the museum educator to be used in conjunction with the museum visit and the Web site will be highly valued by middle-school science teachers, they will be of little value to geologists. Assessment and market research are necessary to determine how each audience values the organization and its products and services.

Questions of pricing strategy are particularly important to any organization that plans to "sell" any of its services. The organization can sell its product on a transaction basis, on a subscription basis, or through licensing. A decision to make the product available at no cost is part of the pricing strategy, since that free good may attract customers to other products and services offered by the organization. Some nonprofit organizations are also faced with the expectation that core services be free and in the public good, in accord with their missions. Possibilities for a pricing strategy include the following:

- Define a mix of products and services that are partitioned among three levels of service: (1) freely available; (2) available by subscription; and (3) available on an added-value basis. An added-value service would provide the resource in an enhanced way; for example, it might make high-quality photo prints available on a

cost-plus basis. Pricing for subscription and added-value services is cost based, but includes 10 percent to 20 percent intended to generate excess revenue over expense that supports non–revenue-producing activities or provides a cushion for hard times. It is possible to implement a process that periodically rotates components from subscription status to freely available and added-value-to-subscription status. Cultural heritage organizations might add new products and services as added-value offerings.

- Instead of assuming that the newest additions to the collection are the most valuable, assume that the collection as a whole is the asset and benefit of subscription. This approach allows for new material to be made freely available for some period of time as a draw, and then archived in the collection and made available by subscription. It also allows for the mechanism of virtual exhibition, in which particular artifacts would be showcased in the freely available partition for a specified period of time.
- Declare market share the goal, thereby committing to lower subscription rates as the number of subscribers increases for a given mix of subscription-based components.
- Make low-resolution thumbnails or access images available at no cost but charge for high-resolution images in digital format or make print images available on a fee-for-service basis.
- Offer individual subscriptions that are locked to a particular Internet provider address.
- Offer group-rate subscriptions at a discount based on a fee schedule that yields more revenue than would be realized from a lower number of individual subscriptions at the higher rate.
- Offer levels of sponsorship that provide for the appearance of sponsor logos on the Web site and on printed materials.

Decisions on a pricing approach should be informed by market research, product assessment, and an ongoing review of constituent response. Because value and price go hand in hand, the organization must have a good idea of the value established by the organization's markets.

Cost-benefit analysis is tricky, particularly for educational, governmental, and nonprofit organizations, whose costs are real but whose benefits are often intangible and not easily quantified without longitudinal outcomes assessment. Experience suggests that evaluating opportunity costs and assessing budget-related pieces of a project scenario are more useful constructs for analysis than is cost-benefit analysis. For a given outlay of resources, what alternative investments are possible, and what are their payoffs? Is a particular investment that supports the mission of the enterprise a key part of the pricing puzzle? Responses to such questions provide a reasonable way to assess paths that will lead to informed pricing choices.

Web-Based Business Processes

The Web has become the major component in the digital library. An organization's Web site is the major vehicle for distributing its digital content. Web exhibits, image content databases, marketing communications, learning tools, electronic commerce, associated authentication requirements, and interactive services may all be present on the Web site and must be integrated into the business plan. Electronic communications such as listserv alerts can serve as the principal means by which an organization notifies markets of its offerings. Both the listserv and the Web site should be used to build community. In the business template that follows, these Web-based business practices are considered both in the communication plan and in the distribution template. As institutional Web sites become more sophisticated and more important to visitors, their strategic importance will increase. For example, it would be possible in the future for a museum or library to use its Web site as a way to

- create digital exhibition catalogs that reach new audiences and attract different visitor markets
- distribute exhibitions online after the physical exhibition closes
- create digital collections that are presented as galleries would be organized in a physical building—by artist, topic, or genre
- create and present searchable digital image databases

Branding and Credibility

Branding is a term used in the consumer product environment that has been adopted by electronic products and services. Libraries and museums present their digital offerings in a way that also presents the organizational identity; in this way, the digital resource user associates the resource with the organization providing it. Cultural heritage organizations enjoy a level of credibility seldom attained by for-profit enterprises. In addition, the public tends to be aware of the existence of libraries and museums, so they should not have to build brand awareness from the ground up. However, cultural heritage organizations do have to build awareness that they are operating with some sophistication in the digital world. This is particularly important for the museum community.

In 2002, Kravchyna and Hastings published results of a survey of museum goers. They found that "most people (57%) visit museum Web sites before and after they physically visit the museum. Further research will be needed to understand exactly what information teachers (48% [of Web visitors]), students (53%), visitors (60%), and museum staff (57%) need before they go to a specific museum, as well as why they visit museum Web sites after they physically visit the museum. Scholars (58%) and teachers (48%) present the highest percentage of virtual visits, even if they do not physically go to the museum. It may be explained that these two audiences visit museum Web sites for research purposes" (Kravchyna and Hastings 2002).

The challenge is to consolidate, sharpen, and extend brand awareness. Cultural heritage organizations can augment brand

awareness by publicizing the availability of services. They can rely on the natural professional communities aligned with a library or museum to extend awareness. They can also build on the widespread understanding that libraries and museums have a strong responsibility for stewardship (long-term care and preservation) of their collections. This high level of credibility gives them an important strategic and competitive advantage.

Cultural heritage institutions are entrusted with collections for which professional or scholarly communities, as well as foundations and the public, are stakeholders. This stewardship role is critical in allowing museums and libraries to differentiate themselves from the many Web sites, both commercial and noncommercial, that offer digital content. Stewardship is an essential marketing concept not only for developing a business plan but also for expanding and managing a collection for online access and digital preservation. Stewardship is a role that is much appreciated by the public, including students. In a series of focus group interviews conducted in 2001 as part of the CDP's evaluation program, students and other user groups were asked about the benefits of access to digital versions of museum content. Focus group participants noted preservation of the original objects as a primary benefit (Fry, Lance, Cox and Moe 2001).

CURRENT PRACTICES IN BUSINESS PLANNING:
A Report of a Case Survey Analysis

To learn about the current state of business planning among cultural heritage institutions engaging in digitization projects or programs, the authors conducted a telephone survey of 13 organizations. Participants were selected to represent the types of digital asset initiatives known to be the most common in the current field of libraries and museum digitization. Interviewees included single institutions doing digital library work; collaborative efforts involving two or more institutions; programs providing digital library services or tools; consortial initiatives; and archives, libraries, historical societies, and museums. A list of respondents appears in Appendix A.

The survey was based on a draft business plan template (see next section) and was implemented, recorded, and reported by a research consultant. Survey questions were posed about all major areas of business planning, as well as about the specific digitization projects that had led the cultural heritage institution to engage in digitization activities on an ongoing basis. The instrument was pretested with one museum and one library. Pretest results were reviewed, and the phone calls proceeded after some minor modification of the instrument. A copy of the survey document is included in Appendix B.

The survey asked questions about the planning process for both the project's and the institution's overall digital asset management program, about integration of the project into the overall organizational structure, and about the existence of project planning or

business planning documents. It included questions about communication plans and public relations and promotional activities, as well as about market research or needs assessment. The survey asked participants whether they had attempted to identify target markets or user segments for their digitization projects and what their institutions did to reach those markets or users regarding the projects. It also included a question about identifying competitors and potential responses to the competition. The survey then moved to questions about how the project was initially organized and what happened when the project was integrated into the organization. If the responding institution was participating in a collaborative effort, the survey posed specific questions about standards setting, communication, and the collaborative process.

The survey also explored areas such as business decision making, project organization, and project management and financial analysis. Several questions focused on budgets and funding the institutions' ongoing digital asset management programs as well as on sources of funding for both the initial projects and the ongoing digitization efforts. If the organization offered a product or service for sale, questions were asked about pricing strategy.

Because standards are often a significant issue related to infrastructure as well as to communication, organization, and staffing, the survey asked how respondents made decisions in this area, and whether or not they modified these decisions upon moving from a distinct project into an ongoing program or when implementing services or products over time. This was an especially important issue for collaboratives and partnerships.

The last area of inquiry related to assessment and use of assessment information in developing the digital asset product or service. The telephone survey ended with open questions that enabled respondents to share their overall suggestions for doing components of the project differently. At the conclusion of the phone surveys, the authors met with the market research consultant to analyze the phone surveys and to develop the trend analysis.

Summary of Trends

The telephone interviews revealed the following trends:

Planning
- All the digitization initiatives in the sample began as grant-funded projects with a scheduled beginning and end.
- Even though many grant applications require a statement regarding sustainability plans, the plans and their outcomes (as reported by those surveyed) focused on the plans for preservation of the digital objects, associated metadata, and the Web site. The only grants that addressed organizational sustainability were the proposals from the Nebraska Historical Society and the Washington Research Library Consortium (WRLC).

- Most of the respondents indicated that they had a plan for sustainability and that the plan was part of their grant application and documented by the application itself. Such plans were limited to activities associated with the grant and had not been revised or modified since the initial grant proposal was written. The specific goals of a grant were included in the grant documents but were not necessarily the goals and objectives of a sustained effort. A disincentive for planning beyond specific grant applications seems to be the perceived need to first "prove yourself" as a leader in the relatively high-risk digital environment. The need for demonstration projects, each coming after the other in sequence, is unusual in the for-profit environment, where a well-thought-out business plan must be produced before the money is provided. In the educational, governmental, and academic environment, pilot projects and demonstration projects funded by grants provide the proving ground. Digitization efforts and services arrive in a "stealth mode," with planning coming afterward.

- Only one university reported having a business plan. However, further questioning revealed that many other institutions reported the availability of components, such as usability studies and promotion plans, that are in a typical business plan. Most of those surveyed were familiar with components of business planning and were ready to move ahead with developing such a plan.

- With the exception of the university noted directly above, none of the responding organizations had multiyear financial plans such as those associated with traditional business planning. When undertaken, financial planning is done annually or, where a project is a multiyear grant, biannually. This approach is likely undertaken for one of two reasons: (1) digitization initiatives are planned to coincide with the institution's fiscal year; or (2) most ongoing programs depend on grants for creation of new content, and those are determined by the funding agencies' grant cycles. Even consortial budgets are developed on an annual basis, driven by the budget cycles of the member institutions' funding agencies. The lack of a long-term business planning approach has a significant impact, in that institutions do not have information about their financial opportunities and risks. Many institutions cannot undertake longer-term financial planning because they lack full information about revenue and expense. Additionally, their institutional financial management systems may not support the data that are needed for business planning. Nevertheless, they could move ahead with such planning, at least on the basis of known revenue and expense such as endowment release, donor planned giving, membership fees, service revenue based on market analysis, license fees, historic revenue figures, and institutional budgeting information. Most institutions can predict near-term (i.e., three- to five-year) expense information, yet the dependence on grants to support ongoing operations discourages institutions from making the assumption that the initiative could be sustained over time.

Sales and Marketing

- Market research is a regular activity in larger museums, but it is seldom done in libraries. Some libraries, however, engage in needs assessment, which can be useful in business planning. Several participants indicated use of focus groups to determine needs and provide input on products. Few interviewees did a lot of work on defining markets or user segments in the traditional market sense, although a few did a fine job of considering markets or user categories or worked in collaboration with partners to develop that information. Few had given much thought to competition or competitive services or content.
- Only a few institutions were selling a product (such as high-quality prints), licensing copies of their collections, or selling a service (such as digital conversion). As a result, pricing considerations were not a regular feature of planning. Those organizations that were making products or services available showed that nonprofit organizations in the digital asset marketplace could become quite sophisticated in developing pricing analyses to ensure cost recovery.
- Cultural heritage institutions place a high value on the public good, including free public access to digital assets. Therefore, few are willing to consider charging fees for digital assets produced through digitization services. Where it was once thought that libraries and museums would establish separate nonprofit entities through which revenue would flow to sustain digital library programs, this has not become the dominant model. Even where a revenue-generating program is established, it is undertaken within the existing library or museum structure, rather than in a separate one.
- Collaborative efforts can involve fees. In some cases, nonmembers pay a higher fee for service than members pay; in others, subgroups within the general membership support specific activity with cost sharing. In the case of access to content created through collaborative effort, the collaborative or consortium may charge fees or require licenses.

Organizational Structure

Two models are emerging in the organizational structure of academic libraries. The first is the establishment of a digital library unit on campus, providing consulting on standards (metadata and digital imaging), Web design, digital imaging equipment, technical infrastructure, and, in some cases, providing digital imaging services and metadata creation services. Respondents all said that the digital library unit was located in the library. In some instances, the unit is located in the technology division on campus, but the library has some relation with the digital library unit. Sometimes there is a centralized digital imaging laboratory; in others, the digital imaging is done in the unit owning the content. If the digital library program is part of the library, then digital imaging is done and access is provided for no additional fee, at least for those resources owned by the library. If the library offers the service to other campus units, a fee structure for the

service is established. Generally, the fees recover the direct expenses associated with providing the service, such as providing a copy of the digital image or consulting on a digital imaging project.

The second model is incorporation of digital asset management activities within the library units serving the library digital asset management needs. This is accomplished by reallocating library resources and hiring new personnel as possible. Metadata are produced by the cataloging unit or in the archives or special collections department. Digital imaging services are offered through the library systems unit or the content-owning unit, such as the music department, archives, or special collections department. No single clear organization structure has emerged in this model.

- The number of museums was not sufficient to identify trends in their organizational structure.
- The number of statewide cultural heritage digitization initiatives has grown over the last four years, built on strong resource-sharing initiatives already under way in those states. More than 15 statewide efforts now provide infrastructure such as search engines, digital imaging and metadata standards, training, and grant opportunities. These collaboratives were created with state and federal grants. Projects undertaken by these collaboratives typically combine centralized and decentralized activity for image creation and metadata production, while taking a common approach to other infrastructure elements such as digital preservation programs.
- Organization and staffing trends are hard to pin down, although almost all respondents commented that there should be a full-time project manager. Most respondents felt strongly that they had underestimated the time and staff required, as well as the need for strong continuing management. They also underestimated the learning curve time, resulting in delays in projects. Some organizations recommended that one unit have overall responsibility for the project, even when inter-unit or interorganizational responsibilities are part of a collaborative or partnership.

Other

- The use of outsourcing varied from project to project, but was often considered, especially when dealing with materials that required special equipment, such as oversize materials or maps, or special expertise.
- Once an organization establishes the infrastructure and learns how to digitize materials, budgets for content creation are usually based on additional grants, with most of the monies allocated to staffing or outsourcing. Ongoing infrastructure costs are supported through funds from the operating budget, fees for products or services, or both.
- Among the institutions surveyed, evaluation and assessment efforts center on interface and technical platform usability. Several interviewees reported conducting technical usability assessment and output assessment—the latter focusing on, for example, the

number of Web hits or number of images and metadata records created. None of the interviewees reported assessing the outcomes or impact of the service on their markets. This might change, since at least one funding agency, IMLS, encourages outcomes assessment[5] and even provides assessment training for grantees. Now, however, few organizations are prepared to undertake or pay for outcomes assessment over the long term. Longitudinal outcomes assessment is difficult to implement successfully in the one- to two-year period supported by most grants. Therefore, the cost of long-term outcomes assessment should be included in business planning for a sustainable program. Most of the survey respondents were aware that evaluation is a critical component and that they should be doing more in this area.

Trends in the Two Major Current Models for Digital Asset Development and Management in Cultural Heritage Institutions

Single institutions. Most digital imaging programs are currently based in single institutions, and libraries and museums are almost equally undertaking digitization initiatives. A report from IMLS notes, "More than 78 percent of all State Library Administrative Agencies reported digitization activities in the past year. Compare this with 32 percent of museums, 34 percent of academic libraries, and 25 percent of public libraries. Larger museums, academic libraries, and public libraries are more active than the smaller ones" (IMLS 2002, 5).

Since most digital asset development is being undertaken by single institutions, many factors related to business planning exist in the context of regular library and museum planning and budget development.

While libraries typically resist looking for revenue from the sale of digital content, an emerging trend in single academic institutions is to look for revenue opportunities outside the initial primary university market, offering fee-based services to help support ongoing costs once an investment has been made in creating the digital imaging infrastructure. This trend is well established within public libraries, archives, historical societies, and museums, which frequently license use of their photo archive collections and have easily adapted this model to their digital photo collections. Their pricing is based on the cost of staffing the service and producing the print or digital image; it is not designed to offset the cost of creating the digital object or the infrastructure.

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[5] Go to http://www.imls.gov/grants/current/crnt_obe.htm on the IMLS Web site for a discussion by Beverly Sheppard on the value of outcomes-based assessment. She says, "This system of measuring results replaces the question 'What activities did we carry out?' with the question 'What changed as a result of our work?'" A focus on measuring outcomes—the effect of an institution's activities and services on the people it serves—rather than of the services themselves (outputs) is an emerging keystone of library and museum programs. In addition, http://www.imls.gov/pubs/pdf/pubobe.pdf is a publication on that topic entitled *Perspectives on Outcome-Based Evaluation for Libraries and Museums*.

Institutions with significant collections may have an opportunity to license an entire digital collection. (The University of Virginia provides an example that will be discussed later in this report.) Undertaking such an initiative requires considerable investigation and effort in market analysis, promotion, pricing, legal and intellectual property issues, and production.

Consortial/partnership effort. The IMLS has been a major influence in encouraging collaboration between museums and libraries. Digitization initiatives have particularly benefited from this collaboration through the IMLS National Leadership Grant programs. The number of partnerships and collaborative digitization projects has increased dramatically over the past three years;[6] it remains to be seen whether these partnerships can be sustained through joint or collaborative business planning. Other federal agencies, including the NSF, as well as foundations such as The Andrew W. Mellon Foundation, have long encouraged collaborative proposals. Consequently, multi-university or academic library projects and subject-based museum projects have been formed on the basis of creating discipline-based virtual collections presented together but owned by individual institutions.

- Budget development is inherently more complex for partnerships and collaborative projects than for single-institution projects. For example, the WRLC has a business plan that must be linked to the business plans of the digital library units or activities within each of its member institutions. Similarly, if two organizations partner over time to create a digital asset program, costs and revenues may be shared, but the long-term business plan is affected by and supported by local considerations within each institution. The whole is more than the sum of its parts, but is also dependent on factors outside its control.

- Almost all digitization projects are collaborative. The collaboration may occur among units within a parent institution (e.g., the library science program, the library, the computer science department), within the library (the cataloging unit and the systems office), or between organizations (a public library and a local historical society). The contributions of the partners vary widely and could include subject expertise, metadata skills, technical skills, equipment, publicity, or cash. One partner might want access to another's collections and barter service to create that access.

- It is difficult to ensure strong, open, and regular communication across different types of cultural heritage organizations. Differences in professional values persist, and successful planning requires significant attention to communication and an understanding of roles and expectations. Museums and libraries do things differ-

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6 "The percentage of National Leadership Grants (NLG) for Libraries and Library-Museum Collaborations with partners for 2001 was 54%. For 2002, it was 49%. If you leave out the library and museum collaborations (which of course require partnerships), the percentage of NLG grants for libraries with partners for 2001 was 34% and for 2002, 36%." E-mail from Joyce Ray, associate deputy director, Office of Library Services, IMLS.

ently, and issues must be talked through. While cultural heritage institutions share values and goals, the participants in collaboratives must focus on meeting the missions of their institutions as well as the goals of the project.

- Allocation of collective responsibilities must be stated up front; assumptions must be avoided. The basis for decentralized decisions must be discussed. Project managers must be alert to new misunderstandings or loss of focus as the project moves forward.
- The more complex the project, the more likely it is that priorities, goals, and even aspects of the mission will change over time. This means that for partnership and collaborative projects, the business plan may have a moving target. Ongoing review is essential.

Sustainability through Making Digital Asset Management a Core Function

Business planning for digital asset management programs is part of a trend leading to the inclusion of digital resource management in the core functions of cultural heritage organizations. Although few museums or libraries are now fully funding, from their operational budgets, digital resource development and management, larger organizations are beginning to assign regular operating funds to maintaining the infrastructure. Among case study participants in this survey, there is evidence of this pattern at the libraries of the University of Michigan, University of North Carolina at Chapel Hill, Indiana University Bloomington, Cornell University, University of Southern California, Tufts University, and University of Washington. Other large organizations, including museums, are undoubtedly moving in this direction as well. Over time, as library users and museum visitors increasingly expect digital services, cultural heritage institutions may be more likely to consider digital asset programs as vital to the success of educational services, information literacy, and other library or museum programs designed to reach out to specific markets.

Business planning will help museums and libraries design the pathway to the future, taking into account evolving market demands and fitting the pieces of businesslike activities into the organization's strategic planning.

A BUSINESS-PLANNING TEMPLATE: Considerations for Cultural Heritage Organizations and Their Digital Asset Programs

The template described here is intended to help cultural heritage institutions prepare a business plan. It is a general guide to the major business-planning elements; each institution may need to modify or expand it to fit its own needs. Each element of the template is explained, and most are illustrated with examples drawn from the telephone survey.

The template elements are as follows:

- mission, vision, values, and goals
- executive summary
- product or service description
- needs assessment or market research
- environment and competition
- markets and services
- pricing
- distribution
- communication
- organizational structure
- operations, including facilities and equipment, management and staffing, and legal issues
- financial plans
- product evaluation and usability assessment

Mission, Vision, Values, and Goals

A mission statement should express the purpose of the organization and describe what is distinctive about it. The mission statement might also briefly state something about what the organization aims to accomplish, including its marketplace niche or the quality of its products or services. The mission has an impact on many other aspects of the organization's business plan, as indicated in the following examples of the WRLC and the University of North Carolina at Chapel Hill.

Lizanne Payne of the WRLC, a consortium of academic libraries, said of her proposal to create a consortial digitization infrastructure available to WRLC members, "We saw this idea as a natural extension of the digital library systems which we were already providing. We have a plan for integrating the new service into the existing organization. It is part of our overall goal of encouraging the development of digital collections from our libraries." With these comments, she is confirming the importance of making sure that the digital service initiative is consonant with the mission of the organization in which it is based.

At the University of North Carolina at Chapel Hill, the library's mission was considered in making a key decision about sustainability. Deputy University Librarian Larry Alford said, "The digital

collections support the mission of the library; we use institutional resources to sustain the project long term. We do not intend to license the resulting data because the project meets our mission. We're creating the Documenting the South Collection and other digital collections as a core function of the library, that should be funded as other core functions are funded."

Richard Rinehart of the MOAC echoed this perspective when he said, "The business plan for the collaborative project needs to be mission driven, coming out of the missions of the participating institutions. That's part of the reason why access to this stuff is free. We figure out what ultimate goal is we are trying to achieve, and then fund it on the basis of that." This example demonstrates that even in a collaboration involving many institutions, it is possible to agree on how the digital asset program fits in the aggregated missions and how that determines the community's approach to funding.

In another illustration of successful collaboration based on consideration of mission, Greg Colati, director of Digital Collections and Archives, and university archivist at Tufts University, discussed how the university's work with Boston-area cultural heritage institutions supports the university's mission: "Everything we do is based on supporting teaching and research. Part of the university's mission is to support other cultural institutions in the area. There is no specific mandate to do that, but we can do it if it also supports teaching and research." The goal of this project was to digitize old city directories, census records, and historic photos using GIS capabilities.

The vision statement expresses what the organization wants to be or become (the ideal or best-possible form and substance to which it aspires) and reflects the organization's priorities.

Value statements describe "core beliefs and norms of the organization, and might address issues about the corporate culture, or beliefs about what is right, fair, just or desirable" (Kotler and Kotler 1998, 79–80).

An organization's mission can be product centered or market centered. A product-centered definition emphasizes that the organization produces what it expects the consumer to acquire. The market-centered mission emphasizes the needs of the consumer, i.e., the benefits, the values, and the satisfaction they seek, irrespective of the particular product. The mission of the Library of Congress, quoted from its Web site, is "to make its resources available and useful to the Congress and the American people and to sustain and preserve a universal collection of knowledge and creativity for future generations." This mission is largely market centered, focusing on the Congress, the American people, and the good of future generations.

The mission of a university is more product centered (in the corporate sector, an example would be a mission statement focusing on what the company sells.) One example is the University of Denver's mission: "to promote learning by engaging students, advancing scholarly inquiry, cultivating critical thought, and creating knowledge." While both examples mention the product and the market, each has a different emphasis.

Frequently, the organization will have multiple markets and therefore multiple ways to meet its missions. For example, a museum will have an educational mission; to deliver on this mission to both the general public and scholars, it will be a community center and serve a scholarly community.

The goals statement defines what needs to be achieved to deliver the desired outcomes. The goals are specific and stated in a measurable form. They should be directly related to the mission statement. At the University of Washington Libraries, a digitization project supported the library's access goals. Director of University Libraries Betsy Wilson noted, "The American Indians of Pacific Northwest Digital Collection project, begun in 1998 and funded by a Library of Congress Ameritech Grant, fit with the University of Washington's strategy of 'anytime, any place' library . . . getting materials to the user's desktop. It fit into the direction of enhanced access."

Tom Hickerson, associate university librarian for information technology and special collections at of Cornell University, discussed how the perspective on digital initiatives had changed since the Digital Access Coalition was formed in 1992. "We increasingly see digital collections as services rather than as purely content, and service support must be holistic, involving staff from various functional areas, such as reference, metadata production, systems, and copyright management. In the first decade, our focus was on content creation; in the next one, we will focus on the delivery of services," he said.

Executive Summary of the Business Plan

The executive summary of a business plan provides the reader with a justification for undertaking the initiative or an overview of the opportunity. It should describe the need or the problem being addressed in the initiative, the audience or market segment being targeted, and the product or service being developed. The executive summary should leave the reader saying, "So now I understand what this is all about."

Cornell University is one of the few organizations responding to this survey that provided an example of a business plan. The document had been prepared for its Digital Consulting and Production Service. The introduction or executive summary reads as follows:

> The Library Digitization Service will be operated as a component service of Digital Consulting and Production Services, a unit of the Division of Digital Library and Information Technologies (DLIT), directed by Thomas Hickerson (Associate University Librarian for Information Technologies and Special Collections). DCAPS offers a suite of digital asset management services supporting digital resource development, from feasibility assessment to full-scale production. Leveraging the Library's existing experience and expertise, DCAPS is comprised of associated services necessary to insure cost-effective creation, management, use, and preservation for digital collections.

> Presently the services include digitization, metadata, copyright, and delivery technology consulting and implementation support.

The document explains that the basis for this program is the IBM consulting model. This approach, which adopts a practice from the for-profit sector, is innovative within the library community.

> The model underlying DCAPS is conceptually similar to the one implemented by IBM with great success in recent years. Rather than having a customer deal directly with the various product-producing divisions of IBM, as was done for many decades, the customer is provided with a "solution" based on the full range of products and services needed. While many of the products and services recommended are IBM-produced, most importantly, they meet the full range of a customer's needs in an integrated manner. While this approach has increased the sales of IBM products, more significantly, it has increased the value to customers of IBM's expertise and advice.

Strategic or Market Opportunity

Part of the executive summary should briefly describe the specific need that will be filled by the product or service being developed. It should explain why this initiative represents a strategic way to meet the customers' needs and further the organization's mission.

Service or Product to be Developed

The executive summary should describe the product or service that is being developed in response to the strategic or market opportunity presented.

Product or Service Description

The product should be described in terms of both the core service and product services. Examples of core, or basic, services might be a metadata and image database, an online exhibit of selected digital content, an institutional repository, or a digital imaging laboratory for staff use. Examples of product, or value-added, services would be a high-quality printing and digital copying, software licensing, customized software, 24-hour virtual reference, or on-demand digital imaging services.

Products are viewed in terms of a product mix, defined as the range of products offered. An individual product might be a digital selection of collections within a library or museum; services supporting the use of digital collections, reference services, or museum exhibits; or programs such as museum educational outreach activities. The product mix is important as a grouping, since without one element of the mix, another element might not be available. Within the digital asset environment, most activity continues to focus on the base level, i.e., creation of the collections. Survey respondents are creating image and metadata databases, with value-added services and learning tools just emerging. Museums are starting to create services to support educational needs, databases to support scholars, and ser-

vices to support their publishing activities. Libraries are working on interactive systems to access scholarly work. Nonetheless, the greatest percentage of work under way at present is designed to launch the fundamental content on which a product mix will be based.

Needs Assessment or Market Research

Kotler (2000, 139) writes that "market research is a systematic design, collection, analysis and reporting of data and findings relevant to [a] specific marketing situation." There are several types of market research, including needs assessment, community analysis, and marketing audits. One can collect a wide range of information, including data on the demographics, geography, economics, technology, politics, and culture of the community served, as well as on competition among similar products. These are characteristics of external market research. Internal market research should address a profile of strengths and weaknesses of organizational planning objectives, strategy and resources (human, fiscal, and physical), organizational climate, patterns of communication, and marketing plans.

It is important that an organization define the business it is undertaking, be it the overall business or a new product or service. Business definition can be done through a variety of market research techniques, including needs assessments. "Research, in the form of listening to constituents, donors, and clients, allows the organization to uncover what is perceived to be special about its constituents, both in how they think and the benefits they want in relation to the nonprofit organization. . . . The product mix of an organization is the sum total of all of the organization's service outputs on behalf of particular constituencies" (McLeish 1995, 9). Organizations use research to decide which products, or packages of products, should be maintained, increased, or phased out.

There are four steps to doing market research:

1. *Determine the data elements to be covered*. This step includes identifying depth of coverage, including the amount and type of resources available to do the research. The type of data to be collected will depend on the specifics of the project. For example, a digitization project might begin with a series of focus groups with the target market. The focus group process provides an opportunity to test the basic product concept. This testing should be done before any work is undertaken, as it can help define the scope of the project, including narrowing, broadening, or completely changing the items to be digitized. Testing can also be used to determine specific things, such as whether the users have sufficient bandwidth capability to receive digital video. Following focus groups, phone or written surveys can be undertaken to involve a larger number of individuals from the target market. The survey could contain questions about specific product features, willingness to pay for the product, and price-level sensitivity. This is the opportunity to ask members of the audience whether they would purchase the product at a specific price. It is also important to ask

the audience why they would not use the product. Other market research could include usability tests. This type of testing can be undertaken at various stages of the product's development. It provides for testing the various features of the product and the interface design. Usability testing is generally not done to determine audience acceptance of the overall product, because the number of individuals testing the product is too small.

2. *Develop the procedures for collecting the data and monitoring the process*. The focus group and survey questions must be carefully developed. Pretesting questions on several organizations or individuals that represent the target market is an important step. Questions should address issues from the audience's perspective, and project designers should be open to the possibility that results may not reflect answers that experts or staff may want or expect. Questions should be revised on the basis of the results of the pretest. To avoid bias and to get the best results, an individual with expertise in market research techniques, rather than staff of the institution, should develop the survey or conduct the focus group.

3. *Collect and analyze the data*. Market research is of two types: primary and secondary. Primary research includes customer studies, such as interviews regarding their current needs, demographics, and why they use or do not use a particular library or museum service. Market research can also be used to assess customer interest in a new product or service. Secondary research provides information that others have gathered about a diverse range of customers that is then customized to the specific research needs of the organization. It is standard practice to conduct secondary research first. Competitor research may have to be purchased or obtained through subscription online services.

4. *Prepare reports and present the results*. A market research consultant or the staff undertaking the market research should present a summary of the data and some conclusions. It is important to look not only for desired results but also for unanticipated feedback. Are the market responses different than anticipated? Do customers want the product delivered in a different way? Do they want an interpretive exhibit approach rather than a database approach? Is the price of the product or service too high? Is there evidence that the customer wants a different product entirely? For example, do they want high-quality prints when you were not planning to offer prints at all? Or do they want TIFF images delivered via e-mail?

Environmental scans, Delphi techniques, and scenario planning are market research techniques developed in the last decade. The Delphi method, developed by the RAND Corporation, is a structured method of group communication to deal with complex problems. The process includes three features: anonymity, iteration and controlled feedback, and statistical group response (Weingand 1998, 66–67). Scenario planning was first used in the 1960s by the military and is now

used widely to avoid planning based on a single set of assumptions. The scenario method of planning allows an organization to explore questions starting with "What if . . ." (Weingand 1998, 85–95) and can allow participants to explore best and worst cases, as well as a range of options or solutions for current or future situations.

Market research allows an organization to

- assess new and emerging opportunities
- furnish information for short- and long-term marketing plans
- obtain information to solve problems
- know which decisions have been correct and which ones are in need of change
- develop promotional and public relation appeals
- assess where the organization stands as it relates to competitors

Oya Rieger, coordinator of the management team of Cornell University's Digital Consulting and Production Services (DCAPS), reported that while DCAPS did not undertake any systematic market research for its campus library digitization services, its involvement in the Unified Services Working Group greatly expanded its understanding of faculty needs. Cochaired by the Cornell Library and Cornell Information Technologies, the campuswide group has representation from the Office of Information Technology (OIT), Center for Learning and Teaching, School for Continuing Education, Communication and Marketing Services, and eCornell. The working group is exploring how to rationalize service access for faculty interested in using various information technologies to enhance learning and teaching. The goal is to provide faculty with systematic assistance in identifying resources and services in support of their projects. As a part of the Mellon-funded Models for Academic Support (MAS) 2010 project, the library has recently completed a survey to determine needs of New York libraries, museums, archives, and historical societies in order to assess the feasibility of developing a fee-based service. The MAS 2010 team is getting ready to administer a campuswide survey to assess the digital asset creation and management needs of the Cornell community. Information about the MAS 2010 project can be found at http://www.library.cornell.edu/MAS/.

Specific ways to learn more include

- mail surveys, which are relatively inexpensive but have a low return rate and are the least reliable option
- phone interviews, which provide immediate information but limit the amount of information gained from the recipient, since the interviewee will be reluctant to spend too much time on the phone
- personal interviews, which can provide extensive information but are the most expensive option

Market research can also fit into a fund-raising operation. "In March 1999, The National Gallery of London, which has a much-admired development office, advertised a position as head of marketing. The National Gallery isn't short of visitors, but will need good data about its visitors, whether individual or corporate. Without

data feeding into the fund-raising department, it is hard to prove the 'reach' and hence the value of a partnership with the Gallery" (Runyard and French 1999, 267).

One challenge for a marketing effort is to take measure of the overall environment in which cultural heritage organizations exist. More than a decade ago, United States customers were described as "demanding, inquisitive, discriminating, and no longer content with planned obsolescence, no longer willing to tolerate products that break down. They are insisting on high quality goods that save time, energy, and calories; preserve the environment" (Rice, 1990). Will the donors, volunteers, and clients of cultural heritage organizations exhibit some of these same characteristics?

These changes in audiences mean that a cultural heritage institution must discard preconceived notions of audience and constantly monitor its constituents in order to match services and programs with evolving needs and desires. The library or museum must know more about its constituents as they change. Market research provides those opportunities. For the American Indians of Pacific Northwest Digital Collections project, led by the University of Washington, Betsy Wilson noted, "We did informal market research, we asked [questions of] our advisory team made up of historians, tribal leaders, librarians and students. They helped with the grant proposal. . . . We *thought* we knew how to do it."

Environment and Competition

Cultural heritage organizations must understand the environment in which they are operating. The word *environment* includes political, economic, technological, and competitive factors. The organization must understand how its constituency views it. Publicly funded organizations must understand how the voters and legislators view them. Organizations with donors must understand how their donors view them. One must evaluate one's own programs and where they fit within the competitive marketplace, deciding which to keep and which to eliminate, even if the products or services are offered free of charge. Thinking about competition is an important part of business planning, and the organization might do well to think in terms of dollars. "Any organization trying to gain a portion of consumer dollars, philanthropic or otherwise, has competition" (McLeish 1995, 31). As part of strategic planning, the organization needs to ask a series of questions related to the competition, even if there is no profit-based motive. As Richard Rinehart of the MOAC confesses about the environment surrounding museum collaboration, "There is an inherent competition for glory and resources among institutions that must attract visitors' leisure time and ticket income, as well as scarce public funding."

Basic knowledge about the environment and competition also includes the answers to questions such as these:

- If there are sales involved in the product or service, what is the total marketwide sales volume? In dollars? In units?

- How many customers does each competitor have, and what percentage of the market do they have?
- What are the sales-volume trends?
- Who are the major competitors? Do they charge fees? Who will the future competitors be?
- What are the competitors' strengths? Weaknesses?
- What are the competitors' strategies to succeed? What are yours?
- What technological trends affect cultural heritage institutions?
- What are the competitors' main modes of promotion?
- When customer behavior changes, how will institution change?
- What are demographic trends affecting the museum and library environments (e.g., an aging population, changing view of libraries by the Internet generation)?
- What are key financial measures in the museum or library market (e.g., local, state, and federal government funding; changing levels and patterns of fund raising and donations)?

Answers to these questions will create a picture of the competitive environment and provide information that can be used to develop an action plan. The Nebraska Historical Society reported visiting a major national commercial digital imaging service as part of its research for creating its own service. The research allowed the society to learn about such things as the technology used, the pricing strategy, and the quality control program of the vendor. It determined that it could not only build a service for its own institution but also offer the service to area libraries and museums. Market research would assist in assessing appropriateness of price levels, product features and functionality, customer support, and other aspects of its service.

Markets and Services

On the basis of market research or needs assessment, a cultural heritage organization can define the service provided and the market in which it will operate, define the scope of its competitive environment, and expand or limit its offerings or the number of constituencies it will serve.

Market segmentation is the process of dividing customers into groups with unique characteristics and needs. On the basis of these data, specific marketing strategies can be developed. Levels of market segmentation include undifferentiated or mass marketing, segment marketing, niche marketing, local marketing, and individualized marketing (Kotler 2000, 256–259).

- Mass marketing, or undifferentiated marketing, treats the entire marketplace the same. Many cultural heritage institutions take this approach to marketing. The academic library may initially think it offers the same services to all markets; however, further investigation may reveal that it does segment. For example, the library offers a different level of services to faculty and graduate students than it does to high school students.

- Segment marketing distinguishes among populations, often by offering an array of products designed to meet differing needs. Alternatively, tailor-made messages may be sent for marketing the same services to different segments. The prime tool for this approach is a rich database of marketing information that can be accessed for a variety of services.
- Niche marketing, or concentrated strategy, focuses on servicing only a few markets. An example might be a children's museum, which would focus its services on children, parents, and educators. The result would be to attract a strong following, investing in that clientele and developing a product offering that is appealing to them. There is a highly defined audience, and the institution has highly defined goals for reaching that audience.
- Geographic, or local, marketing may aim at specific neighborhoods. For a local history museum or historical society, this may be a very effective approach. Walk-in services might also be promoted with this type of marketing, for instance, through promotional flyers directed to specific zip codes.
- Individual marketing can include "mass customization" through interactive, Web-based technologies, but it can also open an organization to individual feedback and two-way communication about products and services.

"Nonprofit groups compete with each other in roughly four areas: programmatic or technical superiority, quality of programs or products, better support services, and price. All four bear further examination" (McLeish 1995, 79). Marketing strategy will need to be designed to best place the organization in its competitive market, and market research will identify the specific needs of these markets.

Repositioning or repurposing an existing product can expand its life by introducing it to a new market segment. Identifying the specific market segment will also allow the organization to determine the size of the market and determine the technological requirements, such as bandwidth and computer capacity. For instance, if a collection is to be useful to the home-school audience, limited access to broadband for home users has to be considered in determining the best way to present large-image files. Richard Rinehart noted that when developing new content there is usually a new market involved, but that the MOAC project did not emphasize development of new markets early on. "The California Digital Library was created in response to user demand, users being students and faculty of the University of California, so MOAC already has the target audience; we just brought a different supply side to meet the demand. Within the MOAC project, there were some new audiences, art and anthropology faculty, but there was no systematic means of identify new audiences/markets early on."

Pricing

Most business textbooks have extensive sections on pricing, including many examples that may be useful for nonprofit organizations. To determine whether to develop a product or service, one must determine the cost of creating it. A decision is also needed on whether the product should be made available at no cost to the constituency or whether a fee should be charged. In the for-profit environment, the cost of development is known and the price is determined as a matter of course. Cultural heritage organizations frequently offer the product or service at no cost as part of their public purpose; as a result, they do not use financial management systems to determine the total cost of developing and providing the product.

Ideally, business planning should include information on the full cost of providing products and services, even if the organization decides not to recover that cost. The types of cost data collected should include both direct and indirect costs, as illustrated in the following chart.

DIRECT COSTS	INDIRECT COSTS
Rent/space	Building operations, including heating, air conditioning, and lighting; depreciation costs
Salaries for continuing and temporary personnel Staff directly involved in special products or services Other areas involved in producing the product or service, such as technology, marketing, or educational services	Salaries of permanent staff only indirectly involved, such as: • accounting • legal • human resources
Supplies specifically for the product or service	Supplies from general stock
Promotional expenses	Supplemental services (e.g., printing, billing)

Some projects develop cost models by dividing total costs by the number of digital images or objects generated for the product or service. While this may be a relatively easy method of cost assessment, it is not fully accurate. Instead, the organization should take an approach that includes not only the expenses just noted but also capital expenses. Hardware and software must be depreciated over a period of time that generally extends beyond the timeframe for a single project. When amortized, project costs will vary. Other questions to ask include the following:

• Is the initial investment intended to be used for other projects?
• Was product research included in the overall cost?
• Have staff costs been appropriately allocated to the project?
• Are staffing costs higher than anticipated because of the learning curve or delays in the product development? (This will drive up

project and product cost and could have an impact on the cost per item if the simple calculation method noted above is used.)

Cultural heritage organizations with a great deal of experience in creating digital projects and services are keenly aware of how quickly the overall formula for establishing cost can change. John Wilkin of the University of Michigan observed, "We're always looking at our costs. We develop and refine the cost models on a monthly basis, looking at the unit costs and the trends."

Another formula for pricing is brief but thorough: Price= Image +Service+Product+Overhead+Profit+Risk (Bangs 2002, 73). Costs are associated with all elements of this intriguing formula. It addresses program costs such as marketing and advertising (image), costs related to creation and delivery of the services provided, and costs related to the indirect or overhead of operating the organization providing the service. It includes a profit margin. Finally, the costs of taking the risk to offer the service and of the potential lost opportunity are included in this formula.

When determining pricing, one must consider marketplace conditions, not solely the cost of producing the product. These conditions include the competitive environment, what the competition is charging, what the customer will pay, and an approach to cost recovery over time. Perceived value may play a role in setting pricing, and if the perceived value is very high, the actual cost of creating the product may not be highly related to pricing strategy. Some organizations may establish a low price and sell a high quantity of a product. This approach is generally successful only when the product has become a commodity and there are few remaining competitors. Cultural heritage institutions, with their unique physical collections and environment, will not evolve to a point where products become commodities and there are few competitors remaining in the field. It is, however, possible that digitization services, such as high-quality print, could be a commodity offered by only a few competitors.

Distribution

The marketing literature generally discusses distribution in terms of physical place. However, most digital asset management products or services provided by cultural heritage organizations are distributed through their institutional Web sites, and the traditional image of the library or the museum as a building alone has become outdated. "The library that seeks to foster an image of being essential to the community and on the cutting edge of information provision cannot afford to be tied exclusively to yesterday's paradigm of service" (Weingand 1998, 113). In addition to the institution's Web site, several other distribution strategies may be considered, including partnerships with for-profit organizations, collaborative initiatives such as the AMICO or the CDP, and partnerships in which one partner is responsible for distribution.

The University of Virginia has an interesting partnership with ProQuest Information and Learning Limited (formerly Chadwyck-Healey) under which ProQuest Information distributes the licensed version of the university's Early American Fiction collections. ProQuest Information is responsible for sales, publicity, development of promotional materials, determination of the marketplace, and distribution of the licensed product. The University of Virginia distributes the product free of charge to its faculty and students and to those of other academic institutions in the state through the Virtual Library of Virginia (VIVA). Nontraditional partnerships such as this one are emerging in the digital environment but are still rare.

Distribution channels are responsible for getting the product to the marketplace. Questions to consider include: Where is the best place to sell the product? Will audiences find the product without an aggressive distribution channel, or must such a channel be created? What barriers to distribution might exist, including technological barriers, such as bandwidth capacity, and barriers to penetration into rural communities and developing nations?

Most organizations are taking a relatively passive approach to product sales—offering online ordering of prints or digital copies of images from their Web sites. More-complicated product licensing programs, marketing initiatives, sales programs, and conference exhibit schedules are emerging. Sales, while integral to a business plan, is not a topic addressed in this paper. There is ample literature on establishing a sales program, but there are few examples in the cultural heritage community of sales as the primary basis of sustainability. When the topic of sales is present in the business plan, it should be approached with sensitivity to the values and mission of the organization.

Communication

"Before an organization can determine which communication or promotional tools to use, it has to have an image or message for a product, service, experience, or organization to promote" (Kotler and Kotler 1998, 219). It must be something the user will respond to, find appealing, want to purchase, or participate in. Today's marketing experts talk about *brand image* or *brand identity*. These are shortcuts to attract attention and build familiarity, trust, or expectation of benefit. "An effective image works like a funnel, directing a flow of attention and regularly bringing consumers to an organization's . . . corner whenever the consumer has a need for that type of product or service" (Kotler and Kotler 1998, 219). Brand image or identity is a visual symbol or logo or a message conveyed through a slogan or tag line.

There is more to a communication plan than branding. A full communication plan includes a range of promotional strategies and activities targeted to a specific audience and has a specific set of messages based on the benefits to be derived by those users, as defined by the needs assessment and market research or needs assessment. There are four basic tool sets of a promotion plan:

1. advertising, which includes print and broadcast ads, mailings, catalogs, newsletters, brochures, posters, billboards, symbols and logos, and other print products
2. public relations, including press kits, speeches, seminars, annual reports, sponsorships, publications, lobbying, and media relations
3. direct marketing, such as direct mail, telemarketing, integrated direct marketing, and database marketing
4. sales promotion, including gifts and premiums, discounts, gift shops, redemption coupons, and tickets

It is commonly thought that the refrain from *Field of Dreams*, "If you will build it, they will come" holds true for all digital assets, and that making something available through a Web site represents effective and adequate marketing. More can be done with a Web site to enhance a communication plan. An Internet marketing plan can include anything from naming the product with the Internet in mind—for example the Colorado Virtual Library—to using e-mail alerts (selectively, of course) to do digital publications (Bayne 1997).

Many of these communication tools could be more extensively used by libraries and museums, and could be built into a promotional plan for digital asset products and services. This is something many libraries and museums simply neglect. Even the MOAC project did not put significant resources into marketing, "We had a good plan for developing the content, but we haven't successfully reached out to let the professional community know that it's available to them. We had a built-in audience; marketing to them was overlooked in the early stages," commented Rinehart of MOAC.

A specific response is desired by the promotional product and should be spelled out in the communication plan. A timeframe for each activity should also be noted in the plan. The communication plan has an impact on the budget, and each component of the plan is likely to have associated expenses, such as advertising costs.

Organizational Structure

Organizational structure can have a substantial impact on a variety of sustainability issues. The way in which digital activity fits into the organization, and communicates with it, directly affects the likelihood of ongoing success. The efficiency of the organizational map for the digital service or program can also affect staffing, equipment, marketing, and other business elements. When there is a separate unit, it is essential to define the role of the unit and its collaborators within the organization as a whole. The model adopted at the University of Michigan is just one example of how central funding for a part of the unit's operation can be augmented through projects or partnerships. The unit's business plan is based on several sources of funding, each of which is appropriate for the organizational plan. At the University of Washington, the position of the digital initiative unit in the library has changed, reflecting changing needs. The unit began as a SWAT team of five people who guided projects across different parts of the library, worked on technical and metadata stan-

dards, managed fiscal aspects of projects, watched for emerging technology, and trained staff. However, there was a strong desire to ensure that this group be recognized and integrated across the library system. "We learned that we needed a centralized unit to steer the digitizing work within the library," said Betsy Wilson. This model fit the needs of a single institution in a partnership relationship with other organizations.

In contrast, the MOAC took a highly decentralized approach to organization. The CDL Online Archive of California (OAC) provided the technical infrastructure for the Encoded Archival Description (EAD) Finding Aids project that the 11 participating museums used for their project. The goal of the initial grant was to see whether museums throughout California could create an integrated, online collection of finding aids for the museum collections, sharing the OAC infrastructure and adapting the EAD finding aid environment to museums. An IMLS grant was awarded to the CDL, and minigrants were awarded to the museums. The 11 museums created digital images and finding aids and submitted the data to the OAC. Rinehart, project manager for MOAC, notes, "One of the biggest findings is that we spent a lot of time figuring out how museums could contribute content to one central portal [OAC. Later we began] to enable museums to become more capable at creating digital stuff and sharing it. [We needed to] show [that] each museum can share its information in more than one portal, instead of focusing exclusively on the centralized portal [OAC]. We looked back up the chain at each individual institution and asked, 'What can we do to help them?'" The focus on individual museums is further exemplified by Rinehart's comments on outsourcing: "Each individual museum was responsible for digitizing its own content. Some outsourced and some didn't. Individual institutions made their own [staffing] decisions; only one museum hired someone just for the project." On the topic of budgets, Rinehart explained, "It's up to the museum; each came up with its own budget." And, finally, regarding sustainability: "Museums that are part of the University of California system will receive some support from the system; the CDL will have to pay for more server storage, tools, etc. Museums are now on their own in terms of budgeting; each museum will decide that. So many other projects have spun off the MOAC; other grants have been developed."

The organization of the CDP, like that of the MOAC, is decentralized, yet the program provides centralized services such as training and consulting services, along with infrastructure, such as regional digital imaging labs and a centralized metadata database. CDP Executive Director Liz Bishoff notes, "I concur with Rinehart's comments on the need to put more emphasis on what individual institutions need. We need to put effort on what the individual institution needs, figure out what they need, and decide what standards they can afford to produce."

Operations

Facilities and Equipment

Every program or service needs physical space. This includes space for staff, equipment, and storage of supplies, both for the initial product or service development and for ongoing operations. Because space must be budgeted for, detailed information about space requirements must be provided and decisions made as to whether existing space can be used, whether it must be rented or remodeled, or whether construction must be undertaken. "We had to find room in special collections to house two cameras and the staff for digitizing books that could not be removed from special collections," noted Karin Wittenborg of the University of Virginia. Special consideration must be given to the resources that are being digitized from museums and libraries. Their fragile nature may preclude shipping them to vendors or even moving them to different parts of the building or campus. If rental space is required, brokerage fees and moving costs must be included.

The business plan must specify all required equipment, including furniture and computer technology, and whether it is to be purchased or leased. Depending on the cost, the equipment may be amortized over a period of years. The organization's finance and information technology departments should be consulted regarding the recommended amortization periods. Telecommunications, general computing, digital imaging, and digital rights management software should be included in the equipment required, as should user authentication and digital watermarking software, if it will be used.

Digital asset management programs depend heavily on planning for appropriate technology. Issues to be considered in the business plan include technology costs related to standards compliance; interoperability with partners or national activities; migration of operating systems and hardware platforms, data migration, and preservation; and authentication. Larry Alford of the University of North Carolina at Chapel Hill reported, "We . . . migrate data, back up data, and provide sufficient staff to maintain the service. That comes out of the library's operating funds and is part of a business plan for sustainability that does not include generating revenue." Other institutions are likely to decide that the costs of such infrastructure should be offset by revenue of some kind.

Management and Staffing

The business plan must address the staffing needed to complete the project, including the degree of needed technical capacity and managerial competence. It should indicate who would be the project director and make certain that this person has the responsibility and authority for completion of the project. The plan should include brief descriptions of other key management positions and personnel requirements. It should indicate what positions are new hires and what individuals will be reassigned from existing positions. Some activities are best outsourced and should be indicated as such.

Staffing is a major expense for cultural heritage institutions. The

budget documents should include not only salary but also fringe benefits for permanent and temporary staff associated with both the development and ongoing support of the product or service.

At the WRLC, the need for expert staff drove members to support a central service. Lizanne Payne recalled, "One of our obstacles was the need for staff expertise in each library. It seemed to make more sense to develop that expertise centrally—to have a few centrally located staff with expertise— rather than assuming that each library would develop staff with metadata and scanning expertise. It seemed like a logical place for the consortial organization to start, since some of the libraries had already started digitization but not on a large scale." The decision to create a shared infrastructure helped the member libraries avoid considerable expense.

Similar arrangements, wherein members contribute different kinds of staff expertise, are evident at the University of Washington and in other projects described on the CDP Web site.[7]

In the University of Southern California Digital Library Program, Marianne Afifi reported, "we're finding a need to track what people are doing. We're having to become more formalized, take a project management approach. Before we start, we'll do an analysis of whose time is going to be involved and how much. We do a better job of tracking resources—money, time, etc. It helps us to prioritize projects." Almost every project noted that a full-time project manager was needed. Wittenborg at the University of Virginia commented, "It would have helped to have a project manager assigned to the project full-time from the beginning and to have one department responsible for the whole project from the outset. Hiring a full-time digitization coordinator to be responsible for the imaging schedule and quality control helped to improve the efficiency of the project. We should have incorporated staff turnover into the time we budgeted to complete the digitization project."

Legal Issues

By its nature, a digitization project or service is likely to have copyright and intellectual property issues associated with it that other projects undertaken by cultural heritage institutions do not face. Laura Gasaway, a leading copyright expert, articulates several reasons for creating a university copyright ownership policy, and many of these apply to digitization projects (Gasaway 2002). In general, copyright is designed to encourage research, scholarship, and the creation of new knowledge. The policy should
- protect the institution's interests
- protect the faculty, archivists, curators, and librarians or other creators
- deal with issues before disputes arise

Specific issues to be addressed in a higher education setting would include the following:
- work-for-hire considerations, a particularly important issue for museum photographers, library and museum Web designers, exhibit designers, and education resource creators

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7 See http://www.cdpheritage.org/heritage/participants.html.

- deeds of gifts that ensure the institution has the rights needed to undertake the digital asset presentation activities
- copyright for educational programs, including the Technology, Education, and Copyright Harmonization (TEACH) Act and best practices related to library reserves; copyright permission procedures; and special issues in the copyright arena, such as those related to music and other performances
- the Native American Graves Repatriation Act, a key issue for most museums

Generally, a copyright policy is developed by a team, including faculty members or curators, librarians or archivists, board members, and legal counsel. Legal counsel experienced with copyright and intellectual property rights and, in particular, with fair-use issues, is preferable. Few, if any, certainties can be found in the area of copyright and fair use, although guidance is available and case law is emerging slowly. If a cultural heritage organization is participating in a collaborative initiative, there are additional legal issues. Further, there are different considerations[8] for managing digital versions of published and unpublished resources.

Another expert on rights and fair use is Georgia Harper, who has mounted an extensive set of policy and instructional pages on the University of Texas Web site. Many of these are extremely helpful for all kinds of organizations with a public mission. Although the advice and briefings were prepared for a higher education environment, museums and other cultural heritage organizations would benefit from the information available in Harper's publication *Crash Course in Copyright* (Harper 2001).

While the business plan is not intended to articulate every element of a rights management plan, it should address aspects of intellectual property, copyright, and other legal issues that entail risk and cost. If a cultural heritage institution is considering creating a digital resource to sell, it is particularly critical to know about rights. While intellectual property law changes frequently, the basic principles are outlined by Lesley Ellen Harris, a media copyright attorney, in her book *Digital Property* (1998). More information on rights issues specifically related to digital assets can be found in chapter IV of the *NINCH Guide to Good Practice* (2002). Two concise guides to the decision-making process related to public domain resources are available from Laura Gasaway's Web site (Gasaway 2003) and from the Michigan Library Consortium (2003).

Financial Plans

Many museums and libraries are incorporating their digital initiatives into their operating budgets. Institutions should consider developing a separate financial plan for the digital asset management

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[8] See the wide range of papers and resources available through the NINCH Copyright Town Meeting series and the resources associated with the Digital Copyright Workshops. Available at: http://www.ninch.org/.

program. The financial plan provides decision makers with a better understanding of the true costs of digitization. It also provides the type of financial information needed to support a grant application. Should the organization decide to develop fee-based services, some of the information required for pricing those services will be available in this plan.

The financial component of the business plan covers a three- to five-year period and has revenue and expense components. The revenue component includes all revenue streams. For example, a library could be offering a consulting and training service that is one revenue stream, software service that is another business, licensing of digital assets as another business, and grants and donations as another revenue stream. Projections for years beyond those covered in the plan are usually based on historical trends; however, with new products, estimates have to be based on market research, discussions with customers or potential customers, and contracts. Inflation needs to be built in, as do price increases.

On the expense side, all costs associated with the above-noted components are reflected, along with salaries and fringe benefits, equipment, facilities, legal and accounting activities, production costs (where outsourced), promotion costs (printing of brochures, Web site design and development), sales costs, and exhibit costs. The costs of content creation should also be included.

It is important that a nonprofit organization budget for future development and equipment replacement. Jill Koelling of the Nebraska Historical Society reported that their budget office has done a thorough job of budget planning. The budget shows revenue and expense with excess revenue over expense allowing for equipment replacement.

Product Evaluation and Usability Assessment

Evaluation is an important component of a business plan, and it should be done on a regular basis. Use is one important measurement for many digital product and service programs. Karin Wittenborg noted, "Our measures of success for the Early American Fiction product are based mainly on usage data of the materials from the Electronic Text Center site and on the income from ProQuest licensing royalties."

Evaluation of the program or service's effectiveness must be done from the perspective of constituents, including funders and users. Many interviewees reported that they rely on usability labs to test their Web sites. The University of Washington Libraries staff reported that they have "a nice usability lab and run everything through it, testing the interface." Product usability is a critical component of product development and should be used during various stages of product development, including product design, prototyping, and testing.

Customer-satisfaction surveys are effective tools to evaluate current or new users of a product or service, board members, and staff.

Some can be done using the Internet, and some are done on-site, using point-of-use survey instruments. The Denver Museum of Nature and Science's Kris Haglund reported that the museum conducts a set of evaluations of the final product with focus groups representing various market segments (teachers, lifelong learners, the general public). Institutions should consider what of their existing infrastructure can be used to evaluate a digital initiative, rather than reinvent the wheel.

CONCLUSIONS

"How do we get money for this?" is probably the most common question asked with respect to sustainability. There is no single answer. Each organization that considers moving from a grant-funded, one-time project to a long-term program should engage in a planning process to find the most appropriate set of answers.

This survey of selected cultural heritage organizations revealed a number of interesting patterns. Perhaps the most general observation is the need for much more attention to business planning in the strategic-planning process. The survey revealed that only a few institutions are already doing business planning and verified the importance of businesslike thinking to improving the sustainability of digital asset management programs.

Although little formal business planning is under way, most responding organizations are familiar with business-planning elements. None would have much difficulty completing a business-planning template. However, they have varying levels of experience with many of the template elements, especially market research and needs assessment, marketing, and outcomes assessment.

The organizations selected to participate in this survey were known to be well along in their digital asset management efforts. Many had already begun to implement strategies for sustainability. These strategies ranged from budgeting digital library activities as a core function supporting the mission of the organization (a trend most noticeable in larger university libraries) to generating revenue for digital asset management services. The results of this survey, coupled with the experience of many smaller cultural heritage organizations, make it clear that the great majority of libraries, museums, historical societies, and archives launching digital asset programs have not done business planning. If leading organizations have seldom moved ahead with this approach to sustainability (even though they may be ready to do so), then the cultural heritage organization that might be regarded as representing the norm has much to do in the arena of sustainability planning. Both categories of cultural heritage organizations have much to gain from taking the approach recommended here. The business planning approach allows a far longer-term, strategic perspective than the alternative of simply asking, "How do we get money for this?"

REFERENCES

Allen, Nancy, and Liz Bishoff. 2002. Collaborative Digitization: Libraries and Museums Working Together. *Advances in Librarianship* 26: 43–81.

Bangs, David H., Jr. 2002. *The Market Planning Guide: Creating a Plan to Successfully Market Your Business, Product, or Service*. Chicago: Dearborn Trade Publishing.

Bayne, Kim M. 1997. *The Internet Marketing Plan*. New York: J. Wiley & Sons, Inc.

Bryson, John M. 1995. *Strategic Planning for Public and Nonprofit Organizations* (rev. ed.). Jossey-Bass: San Francisco.

Chandler, Alfred D., Jr. 1966. *Strategy and Structure*. Garden City, N.Y.: Doubleday & Company.

de Wit, Bob, and Ron Meyer. 1998. *Strategy: Process, Content, Context* (2nd ed.). London: Thompson Business Press.

Fry, Thomas, Keith Curry Lance, Marti A. Cox, and Tammi Moe. 2001. *A Comparison of Web-based Library Catalogs and Museum Exhibits and their Impacts on Actual Visits*. Available at http://www.cdpheritage.org/resource/reports/cdp_report_lrs.pdf

Gasaway, Laura. 2002. Drafting a Copyright Ownership Policy. *Technology Source* (March-April). Available at http://ts.mivu.org/default.asp?show=article&id=982.

Gasaway, Laura. 2003. *When Works Pass into the Public Domain*. (Nov. 4). Available at http://www.unc.edu/~unclng/public-d.htm.

Harper, Georgia. 2001. *Crash Course in Copyright*. Available at http://www.utsystem.edu/ogc/intellectualproperty/cprtindx.htm#top.

Harris, Lesley Ellen. 1998. *Digital Property: The Currency of the 21st Century*. Toronto: McGraw Hill Ryerson.

Institute of Museum and Library Services. 2002. *Status of Technology and Digitization in the Nation's Museums and Libraries*. Available at http://www.imls.gov/reports/techreports/intro02/htm.

Kotler, Neil, and Philip Kotler. 1998. *Museum Strategy and Marketing: Designing Missions, Building Audiences, Generating Revenue and Resources*. San Francisco: Jossey-Bass.

Kotler, Philip. 2000. *Marketing Management: The Millennium Edition*. New Jersey: Prentice Hall.

Kravchyna, K., and S. Hastings. 2002. Informational Value of Museum Web Sites. *First Monday* 7:2.

McLeish, Barry J. 1995. *Successful Marketing Strategies for Nonprofit Organizations*. New York: John Wiley and Sons.

Michigan Library Consortium. 2003. *Copyright Issues for Libraries When Digitizing Materials for the Web*. (Feb. 24). Available at http://www.mlcnet.org/services/copydigitize.php.

National Initiative for Networked Cultural Heritage. 2002. *NINCH Guide to Good Practice in the Digital Representation and Management of Cultural Heritage Materials*. Available at http://www.nyu/its/humanities/ninchguide/.

Rackham, Neil, Lawrence Friedman, and Richard Ruff. 1996. *Getting Partnering Right: How Market Leaders Are Creating Long-Term Competitive Advantage*. New York: McGraw-Hill.

Reich, Robert B. 2001. *The Future of Success*. New York: Knopf.

Rice, Faye. 1990. How to Deal with Tougher Customers. *Fortune* (Dec. 3): 37.

Runyard, Sue, and Ylva French. 1999. *Marketing & Public Relations Handbook for Museums, Galleries & Heritage Attractions*. London: The Stationery Office.

Utterback, James M. 1994. *Mastering the Dynamics of Innovation*. Boston: Harvard Business School Press.

Weingand, Darlene E. 1998. *Future-Driven Library Marketing*. Chicago: American Library Association.

APPENDIX A:

Institutions Participating in the Survey

Colorado Springs Pioneer Museum

Cornell University Mann Library

Denver Museum of Nature and Science

Indiana University Bloomington Library

Nebraska Historical Society

Museum Online Archive of California

Tufts University Digital Collections and Archives

University of Michigan Library

University of North Carolina, Chapel Hill Library

University of Southern California Library

University of Virginia Library

University of Washington Library

Washington Research Library Consortium

APPENDIX B:
Framework for Sustainable Web Access to Cultural Heritage Collections —Interview Questions

Please review the following questions and be prepared to answer them prior to the telephone interview. Thank you!

PROJECT BACKGROUND AND DESCRIPTION

1a. About how many digitization projects has your institution been involved in over the past 3-5 years?

1b. For purposes of the interview, I'd like you to select one of those projects to discuss. Please select the project that you're most familiar with and one that you think would serve as a good "model" for other institutions starting their own digitization projects.

1c. Briefly describe the digitization project (you selected). Include the purpose, goals, objectives, programs, services, and products.

1d. About how long did the project take—from the time to submitting the grant to the time you implemented the service?

PROJECT PLANNING

2. How was the project initiated?

3a. Did you have a *written* plan for the digitization project?

3b. Does the plan include integrating the service into the organization?

3c. What was the rationale for developing a plan?

4. How did the plan to integrate the service to fit into your organization's strategic plan?

5. From the time you first started the project to the time you integrated the service into your organization, did your original plans or objectives change in any way? What changed? Why did it change?

COMMUNICATION PLAN

6. Did you create a plan to communicate the project? What did the plan include?

MARKET RESEARCH

7. Did you conduct any market research or do a needs assessment during the planning stage of the project? How did you use this information in the planning process? Was it helpful?

8. Did you have to do any additional research when you went from the digitization project to integrating the service into your organization?

MARKET/AUDIENCE

9a. What process did you use to identify the target audiences for the service?

(FOR PARTNERSHIPS & COLLABORATIVES ONLY)
10. Was there an overlap in the audience among partners or members? Were any audiences shared? Did you have to define any new audiences or redefine any audience for the collaboration or partnership?

11. What was your strategy for reaching your audiences?

COMPETITION

12. How did you determine if there was any repetition or overlap with your project and other digitization projects?

ORGANIZATIONAL STRUCTURE

13. What was the organizational structure for the project? Did you have to create a separate organization for the project or was it integrated into the existing structure? If separate, what was the relationship with existing units/departments or partners? How were decisions made?

14. How did you determine the organizational structure for the project?

15a. Did the project's organizational structure (functions) change when you integrated the service into your organization? How did it change?

(FOR PARTNERSHIPS & COLLABORATIVES ONLY—SKIP IF DISCUSSED IN Q13)
16. Was a separate not-for-profit organization set up for the project?

(FOR PARTNERSHIPS & COLLABORATIVES ONLY)
17a. Was the digitization project an existing activity of one or more of the members of the collaborative or partnership?

17b. How were decisions made? That is, was there a digitization standing committee that made policies for the digitization activities or are those policies made by the collaborative board?

(FOR PARTNERSHIPS & COLLABORATIVES ONLY)
18. What other digitization organizational structures do you have? For example, standards working groups, technical working groups, fund raising, etc.

OUTSOURCING

19a. Did you outsource any components of the project?

19b. What was the decision process to outsource in the context of project planning and organizational planning?

20a. Did you conduct any cost analysis to determine what would be more cost effective—outsourcing project components or conducting the work in-house? What cost components or factors did you look at?

20b. IF NOT OUTSOURCED, ASK: How did you come to the decision that components of the project would not be outsourced?

PROJECT MANAGEMENT

21a. In general, describe your project management infrastructure.

(FOR PARTNERSHIPS & COLLABORATIVES ONLY)
22. How was project management handled across partners or members?

23. Did project management change in any way when you integrated the service into the organization's infra-structure?

STAFFING

24. How did you determine the staffing levels and staffing expertise required for the project?

25. What different staff expertise was required when you integrated the service into the organization's infra-structure?

(FOR SINGLE INSTITUTION ONLY)
26. Did you share staff expertise with other departments, organizations, business units, etc.? Explain the pro-cess for shared staffing.

(FOR PARTNERSHIPS & COLLABORATIVES ONLY)
27. Did you share staff expertise with other partners, participants, institutions, organizations, etc.? How was this undertaken?

TRAINING AND DEVELOPMENT

28a. Did you develop specific training requirements for staff working on the project ?

28b. How did you develop the new staff expertise?

29. IF OUTSOURCED, ASK: Was the outsourcing organization required to provide specific training for their staff who were working on the project?

(FOR SINGLE INSTITUTION ONLY)
30a. Did you develop staff expertise across departments, across organizations?

(FOR PARTNERSHIPS & COLLABORATIVES ONLY)
30b. Did you develop staff expertise across partners, participants, organizations?

(FOR PARTNERSHIPS & COLLABORATIVES ONLY)
30c. IF YES, ASK: How was staff expertise developed?

(FOR PARTNERSHIPS & COLLABORATIVES ONLY)
31. How was ongoing participant training supported? What were member institutions' responsibilities?

(FOR ALL)
32. When you implemented the service, did you develop training for end users?

EQUIPMENT AND FACILITIES

33. Were there any unique physical requirements to house the digitization project?

34. Were there any additional physical infrastructure requirements needed to integrate the service into the organization's infrastructure?

PRICING

35. Do you charge or plan to charge for the service?

36. IF YES, ASK: How did you determine how to price the various components of your service?

BUDGET/FUNDING

37a. Did you have a separate budget for the project?

37b. IF YES, ASK: What were the major factors you took into account to develop the budget for the project?

38a. Were these the same factors you took into account to develop the budget for integrating the service into the organization's infrastructure?

38b. IF NO, ASK: What were the major factors you took into account to develop the budget?

39. When you integrated the service into the organization's infrastructure, did you experience any additional operational costs that you didn't budget for?

40. What is the relationship of the operational budget to the overall organizational budget?

(FOR SINGLE INSTITUTION ONLY)
41. Did you reallocate monies from other funds, departments, or services to fund the project?

(FOR SINGLE INSTITUTION ONLY)
42a. How did (or will) you transition the financial support of the project from grant money to your operating budget?

(FOR SINGLE INSTITUTION ONLY)
42b. IF REVENUE OR FEES, ASK: What role did revenue or fees play in that transition?

(FOR PARTNERSHIPS & COLLABORATIVES ONLY)
43. How were resources and expenses allocated among organizations who participated in the project?

(FOR PARTNERSHIPS & COLLABORATIVES ONLY)
44. What are the revenue sources to support the partnership or collaborative on an ongoing basis?

TECHNOLOGY

45a. Did you create a separate technology *infrastructure* for the project?

45b. IF NO: How does the technology *infrastructure* relate to the current organizational technology infrastructure?

46. Was the existing technology infrastructure modified in any way for integrating the service into the organization's technology infrastructure.

STANDARDS

(FOR PARTNERSHIPS & COLLABORATIVES ONLY)
47. How did you agree on the quality control standards?

48. What process did you use to determine metadata and digital imaging standards for the project?

49. Did the standards change or have to be modified when you implemented the service?

EVALUATION

50. Did you build in an evaluation component for the project?

51a. Was *usability testing* part of the plan? How did usability testing work?

CURRENT STATUS

52. What are your plans for maintaining the service? Explain

53. Do you have plans for growing or expanding the service? Explain.

THOUGHTS

54. Overall, do you think the project has been or will be successful? Why or why not?

55. How successful have you been integrating (and sustaining) the service into the organization's infrastructure? What challenges did you face? What were one or two factors that had a major influence on how you integrated the service into the organization's infrastructure? For example, you used vendors for the digitization project—but when it came time to implement it, you brought those same functions in-house.

56. If you had to do this all over again, what would you do differently?

57. For those developing a business plan for a similar project, what advice would you give them?