

**Digital Library Initiative Justification and Outline for Permanency: a report to the
PASCAL Board
June 15, 2006**

Abstract

As demonstrated in articles, grant reports, conference proceedings, and other publications, digital library collaborations increase cost-effectiveness, insure preservation of services, and enhance the value of collections. PASCAL is well-positioned, should the Board so choose, to play a critical role in the development of an important resource for our academic communities and, more generally, to our state. It is our view that the Board should not consider the digital program an “add-on” to the emerging academic virtual library, but rather that it is a vital element of the total virtual library. We envision a collaborative statewide program that ties together academic special collections and archives, public libraries, state government archives and collections, and repositories in other cultural resource institutions to provide a rich statewide virtual collection of key documents of South Carolina history, geography, environment and culture for college students, faculty, researchers, citizens, and K-12 students. Our program should include: planning and facilitation, training and consulting, statewide discover/access capabilities, project hosting/archival capability, digitization capacity, pedagogy and outreach. While ambitious, the program vision outlined in this paper represents the best choice for South Carolina’s future with digital collections.

Introduction

A digital collections initiative has been a key part of PASCAL planning since the strategic plan was written in May 2001. Through three consecutive LSTA grants, the State Library has identified PASCAL as key conservator of the idea to build a statewide digital collections initiative. This view is shared at the Department of Archives and History as well. We have consistently tied the digital library activities to other projects of the virtual academic library as a major element of the virtual library’s offerings.

We have made a modest start, surveying the situation in the state, learning alternative approaches and best practices regionally and nationally, developing a pilot digitization project which explored inter-institutional cooperation, developing the shell and rudimentary infrastructure of a central, web-based finding tool and establishing a consulting service that has been utilized by a public library system.

We are well-positioned, should the Board choose, to play a critical role in the development of an important resource for our academic communities and, more generally, to our state. It is our view that the Board should not consider the digital program an “add-on” to the emerging academic virtual library, but rather that it is a vital element of the total virtual library.

It is crucial to understand that this program is similar to programs in many states nationally, and that the benefits and support for regional digital programs is an established practice in many states. The Institute of Museum and Library Services, the federal agency for library funding, has been actively encouraging, if not demanding, collaborations of this nature for several years. In 2005, and in cooperation with OCLC, IMLS funded a national meeting for leaders of such collaborations. At this meeting, it

became abundantly clear that, not only is IMLS moving in the direction of large-scale collaborations, but other funding agencies such as state or commonwealth legislatures, regional library systems, and boards of governors for university systems are all demanding digital library collaboration within their territories. As demonstrated in articles, grant reports, conference proceedings, and other publications, digital library collaborations increase cost-effectiveness, insure preservation of services, and enhance the value of collections.

While ambitious, the program vision outlined in this paper represents the best choice for South Carolina's future with digital collections. Digital reformatting is a statistical item in ARL's annual preservation survey; at least thirty states have some kind of regional digital library consortium. Undoubtedly, South Carolina must move in this direction if there is any hope of getting in step with the rest of the country. Beyond the digital reformatting of current collections, the academic community is grappling with strategies to support pedagogy and research that is "born digital." While arenas such as institutional repositories (to pick only one example) have not been identified as a part of PASCAL's mandate, it is worth observing that there are potential synergies between the development of the digital library initiative as articulated by its current stakeholders and this emerging area of concern.

Vision

We envision a collaborative statewide program that ties together academic special collections and archives, public libraries, state government archives and collections, and repositories in other cultural resource institutions to provide a rich statewide virtual collection of key documents of South Carolina history, geography, environment and culture for college students, faculty, researchers, citizens, and K-12 students.

Further, we envision developing this resource in partnership with academic, state, and local educators, in order to facilitate the extension of these resources into the research and pedagogy at all levels of South Carolina education.

The academic library community represented by the sixty members of PASCAL is the most appropriate location for the development of this virtual collection, as academic institutions represent both primary locations of many resources, and, by vocation, are well-suited to the role of establishing durable and persistent access to these materials. Further, the administrative and technical "co-location" of the program in the SC Academic Virtual library offers the tangible potential to build the collection in such a way as to be a major academic resource to be utilized along with the other aspects of the virtual library.

The PASCAL consortium is also well-positioned to develop and maintain a statewide "enterprise-" level program by virtue of the composition of its membership which includes the major academic research institutions in the state as well as technical and administrative partnerships with key state agencies such as South Carolina Department of Archives and History, the state's Division of the Chief Information Officer, the State Library, and the Commission on Higher Education. These relationships include tangible state government and higher education systems and business management capabilities that are being utilized in other program areas.

The digital library program, like PASCAL itself, represents a major value to all academic institutions in the state, by providing infrastructure and technical support, by developing projects to promote collections, by leveraging skills beyond the capacity of most individual member institutions, and by serving as the primary destination for research and pedagogy of college level students.

Thus, while the program has stakeholders beyond the strict scope of the other branches of the academic virtual library being developed by PASCAL, it is a critical component of this virtual library; the advantages to both the academic community and the state as a whole argue for incorporating digital libraries as a major element of that virtual library while also developing a governance and administrative structure that allows for participation by the other key communities of interest.

We are seeking to develop the capacity for South Carolina to provide digital assets to our citizens and to the scholarly community of the nation and the world. PASCAL is the nexus.

Key Program Elements

Key elements of our robust digital library program should include:

1. Planning and Facilitation
 - a. Fostering collaboration among member institutions and other interested parties for the purpose of building a robust state digital collection
 - b. Seeking grant funding to benefit digital library activities for the entire state and for collaborative partnerships within it
 - c. Knowing the existing collections in South Carolina repositories of cultural heritage and developing opportunities for maximizing their reach
2. Training and Consulting
 - a. Developing and maintaining a clearinghouse of information on emerging and existing standards and best practices for digital reformatting, metadata, preservation, etc.
 - b. Providing a comprehensive curriculum for digital libraries in workshop, help sheet or other formats
 - c. Providing consulting services to support participant institutions and projects
 - d. Providing technical assistance necessary to achieve appropriate standards in all projects
3. Statewide Discovery/Access Capabilities
 - a. Central Collection level database or inventory of relevant special collections and their access/digitization status.
 - b. Central metadata repository to serve as a union catalog/access portal for all SC digitization projects. This would be tied to the academic electronic virtual library, but would also be accessible independently (such as with “South Carolina Memory”)
 - c. Providing centralized search and discovery tools across all collections in the state

4. Project Hosting/Archival Capability
 - a. Central archival back up facility to ensure persistent preservation of digital assets
 - b. “Enterprise-level” hosting capability that would be available to institutions desiring the outsourcing of collection maintenance.
 - c. Commitment to applying standards of data refreshing and migration to ensure data permanency
5. Digitization Capacity
 - a. Central center that would supply both digitization expertise and services primarily for the reformatting of special collections, due to the very high cost of specialized equipment and handling methods required for such collections.
6. Pedagogy, Research, & Outreach
 - a. Proactive coordination of content development, archival and presentation capabilities in conjunction with scholarly teaching and research communities, primary and secondary education, and general public. (e.g. Relationships with academic departments, ETV, State Library, SC Department of Education, historical and genealogical societies, public libraries, SCLA, SCAA, PALMCOP etc.)
 - b. Developing of relationships with national and regional programs (e.g. connections with other state efforts, federal programs, or metadata repositories such as the Southeastern Digital Library Coalition, NC ECHO, Digital Library of Georgia, PALMM).

Organizational Options

As has been demonstrated in other states, there are numerous approaches to the organization of these capabilities. Examples range from highly centralized academically oriented programs such as the Georgia or California Digital Libraries, to more diffused and open-ended approaches such as NCECHO or the Prospector programs. There are also very effective hybrid models such as Florida’s collaborative approach which involves an academic component (PALMM) which cooperates closely with their state’s department of archives and history’s digital library.

The most appropriate path for the development of our statewide program may well be best approached through a series of coordinated efforts rather than as a single monolithic plan and organizational structure.

At this stage, however, our aim is not to prescribe a structural solution, but to argue for three key points: First, the state of South Carolina *needs* to develop a compelling digital library capability. Second, the development of this robust capability will benefit academic libraries in particular. Finally, whatever the chosen development path, PASCAL is the nexus of this effort.

Budget

An operating budget for a full-blown program as outlined above would include personnel, hardware and equipment and software costs. A fully realized program should include the following elements:

Item	Initial Cost	Annual Cost
Program manager		70,000
Metadata librarian @ 30% of 1 FTE		18,000
Systems librarian @ 30% of 1 FTE		20,000
Systems administrator @ 30% of 1 FTE		22,000
Digitization technician		46,000
Digitization labor		40,000
Rare book-capable digital camera/scanning station	100,000	7000
Flat object, large-format scanning station	30,000	2000
Enterprise-level data storage and servers*	45,000	10,000
Digital Asset Management System software license for state-wide implementation	50,000	10,000
Overhead		10%

*Systems Cost Assumptions: Assumes a "high-end" computing and "mid-level" storage solution for a .5 terabyte system. This assumption is subject to wide revision (upward or downward), based on specific design decisions, but is included to portray order-of-magnitude costs of a reasonably robust central DL implementation involving some archiving and storage for digital assets.

This ambitious but necessary vision involves the development of structural and personnel capabilities that will have persistence over time. While elements of the program development can and should be funded through grants, PASCAL members, the state, and other stakeholders need to recognize that there must be an element of persistent support for the base level infrastructure needed to maintain the program.

Clearly this is not achievable without considerable creativity on the part of the stakeholders in the initiative. Fortunately, there are opportunities to reduce and share costs. Most importantly, the metadata librarian, systems librarian, and systems administrator are positions that could be shared with the other PASCAL programs and are costs that would not need to be borne exclusively by the digital library program. Co-location of these staff with PASCAL's other operations staff offers beneficial synergies such as cross-training and efficiencies. Additionally, all the items in this budget can be implemented incrementally to spread out the costs palatably.

The notion of diffusion discussed in the previous section could also further this notion. For example, if PASCAL members and other stakeholders used a combination of state and grant funds to develop the full program and added program dues and user fees to maintain that program, the costs might be allocated in such a way as to make the program attainable. Further, if some state and member funds were utilized to support portions of the technical support positions that would be created, the direct ongoing support would be further reduced.

It is important to understand that major federal or private grant funding for digital library initiatives will require some significant demonstration of interest on the part of SC institutions. Recently, our proposal for 2006 LSTA funds (to spend 2006-7) was

rejected—a decision based, in part, on the limited state of our infrastructure and our inability to commit to the sustainability of digitization projects. This situation also played a role in the rejection of our two IMLS grant applications. Simple digitization projects are no longer interesting to most funding agencies and digitization programs are an expected department in the academic or research library. Neither projects nor programs are the fundable “special” undertakings they were ten years ago.

There are many ways that this vision can be accomplished, including a variety of partnerships, dictated by the sources of money. For example, PASCAL and USC could be equal partners in a scanning center. Similarly, a relationship between PASCAL and the DCIO offers opportunities for the development of an enterprise-level support model for durable and persistent digital archives. Position development offers another area for creativity. For example, institutions and PASCAL might share positions, or positions such as the metadata librarian and systems support staff could be funded in conjunction with other academic virtual library programs to spread the costs across multiple revenue streams.

Thus, any long term South Carolina digital library program of consequence will require the serious attention of stakeholders to the development of a strategic plan that includes a discussion of revenue streams and governance. The table below indicates some possible funding sources.

Potential Funding Sources

Funding Source	Likely Use/Scope	Notes
Academic Virtual Library Funds	One time hardware purchase or salary?	
State Agency Contributions		State Library, SCDAH, CIO, ETV, K-12 Technology Committee, etc.
LSTA		Rejected for 2007, next five-year cycle begins for 2008 funding year
Major Grants	IMLS application prepared for curriculum demonstration project—submit December 2006	IMLS, NEH, NSF, or any other national agencies/opportunities
New State Funds		New appropriation part of “Tier 3 request, FY 2006/7”
Partner support	Partnership for Digitization Center?	Other in-kind contributions
Member Opt-In Dues		Additional opt-in dues beyond basic PASCAL basic dues for members that want an additional level of service.
New Member Dues		Potentially, this membership

		could expand beyond boundaries of the rest of PASCAL to incorporate museums, public libraries, etc.
Service Fees		Could be tiered with discounted rate for members, so that there is an incentive for membership participation

Alternatives

The vision outlined above describes the necessary and advisable direction of growth for digital library activities in South Carolina. However, it is a challenging direction to go in. There are alternatives to our vision, and the Board has asked us to identify these options, as well as their costs and benefits.

1. Robust Realization

- Cost: depends on speed of implementation
- Longevity: indefinitely
- Output: metadata repository, pedagogical outreach, training, archival capacity regional digitization facility, statewide program for preservation of digital objects and records (multiple storage locations)
- Goals: design and manage a state-wide program for the planning, creation, implementation, enhancement, and preservation of digital cultural heritage objects and records for access by citizens of South Carolina and beyond
- Consequences: support of research and instruction goals of PASCAL member institutions, integration of digital collections with other elements of “Virtual Library,” coordinated approach to all facets of digital library activity throughout the state, integration of South Carolina’s unique heritage resources into the national “repository.”
- First steps to realization: establish commitment to vision and funding the planning stage; establish a formal structure and role for the Digital Collections Committee; write (or ask the Committee or other group to write) a strategic plan; establish mechanisms to bring other communities of interest into the initiative; develop solid funding, governing and planning structures to support the programs desired; identify formal and structural relationships between the digital library initiative and other PASCAL programs.

2. Elimination

- Cost: remaining LSTA funds
- Longevity: program ends September 2006
- Output: summer 2006 digital libraries conference
- Goals: Fulfill terms of 2006 LSTA grant
- Consequences: South Carolina’s institutions create and maintain their own digital collections, lacking an overall vision for integration and critical mass

- First steps to realization: make a formal declaration of the plan and notify committee of responsibilities/opportunities
3. Status Quo
- Cost: \$65,000 (part-time manager, server upkeep)
 - Longevity: indefinitely
 - Output: growth of SC Memory and South Carolina Digital Library online resources, occasional workshops or training, facilitation or consultation of institutionally-based digitization projects, applications for grant funding of larger projects
 - Consequences: Some degree of program integration and outreach, continued stunted growth
 - First steps to realization: make a formal commitment to a minimum level of funding for the digital library program within PASCAL's budget, establish a formal structure and role for the Digital Collections or other Committee (such as to guide the development of the program)

We must recognize that the path to the full realization of the South Carolina Digital Library as outlined in this vision necessarily begins, minimally, by maintaining the traction of the status quo, and by the enthusiastic developing of a thorough long-range plan for the program.

At a minimum, we believe the Board should support the proposal of the officers and the executive director to fund the digital library coordinator's position as a full-time effort for one year through existing state academic virtual library funds. During that year, the board should explore, at least, an "opt-in" funding model for planning and some programmatic support similar to the approach that was so successful in launching PASCAL itself. Clemson and the University of South Carolina have taken a leadership role in this regard, having already pledged \$5,000 each as the seed-bed for this plan. The PASCAL membership authorized the Board to consider this path by approving this contingency in the budget approved at the May 4, 2006 general meeting.

This approach will allow PASCAL to lay the organizational foundations for a more enduring program, as well as to consolidate and make some modest expansions in its demonstration projects started under LSTA funding.