

December 18, 2009

Revised March 31, 2010

To: SOPAG

From: Digital Library Services Task Force:

Diane Bisom, UCR (Chair)
Kathleen Cameron, UCSF
Robin Chandler, UCSD
Brad Eden, UCSB
Lynne Grigsby, UCB
Rosalie Lack, CDL
Emily Lin, UCM
Colby Riggs, UCI
John Wang, UCLA
Sherri Berger, CDL

Re: Final Report – Digital Library Services Task Force

The Digital Library Services Task Force (DLSTF) is pleased to submit to SOPAG the following Final Report, which — as directed in our charge — “summarizes findings and recommends opportunities and processes for advancing the digital library agenda.”

Over the last ten months, the DLSTF has engaged in discussions, research, and collaborative activities focused on the four primary elements of the charge:

- Explore the notion and develop a broad, overarching definition of the “UC Digital Collection,” and its relationship to current/traditional collections.
- Identify and recommend on the systemwide technical infrastructure that would be needed to create, maintain, manage and support the creation and discovery of the “UC Digital Collection.”
- Establish digital collaborative “conversations” and recommend collaboration pilot projects.
- Develop a strategy for creating a “Second Phase” work plan.

The Final Report presents our recommendation, based on our discussions, to initiate an aggressive UC Digital Collection initiative with five major priorities: Sustained Funding, User-Centered Discovery and Delivery, Digital Initiative Integration, Collection Development, and Technical Infrastructure. The report also presents our “second phase work plan” recommendations, based on those priorities. The Appendix contains links to the charge, selected working documents, diagrams, Task Force activities, and two inventories: Current and Planned Digital Initiatives-Collections by Campus and Inventory of Current Technologies Used to Support Digital Collections-Initiatives by Campus.

Since August 2009, two members have left the Task Force: Gordon Thiel retired from UCLA, and Robin Dale left UCSC. Also, the Task Force would like to acknowledge and thank Sherri Berger (CDL) for her excellent recording of our lively and wide-ranging discussions, invaluable editorial assistance, and overall outstanding support of the Task Force’s work.

Thank you for the opportunity to serve on the Digital Library Services Task Force. We look forward to discussing this report.

Final Report
Digital Library Services Task Force

December 18, 2009
Revised March 31, 2010

Part I: Introduction

The University of California Libraries (which we define as the ten campus libraries and the California Digital Library) have embarked on several “next-generation” initiatives that have captured the attention and imagination of the library community. Collectively, the UC Libraries have a long history of building strong collections and working collaboratively with other institutions, as well as internationally recognized expertise in a wide variety of subject areas. We are considered a leader in our profession, having built collections that support instruction and research utilizing current technologies and standards.

Now, to build on this tradition and meet evolving user needs in a technology-centered learning environment, the Digital Library Services Task Force (DLSTF) strongly recommends that the UC Libraries step forward and commit to building a dynamic, long-term, strategic, collaborative, and specifically funded UC Digital Collection, with formally designated initiatives, measurable goals, and points of assessment.

We strongly recommend a bold UC Digital Collection initiative that, within the next five years:

- Makes it possible to capture a significant percentage of new content streams, such as born-digital resources and the products of research and instruction of the University of California.
- Provides all campuses with the infrastructure necessary to create, digitize, manage, share, and preserve their rare and unique collections.
- Creates an environment that supports users and enables them to easily discover and use UC’s expansive and diverse digital content.

The Task Force Second Phase Work Plan Recommendations, outlined in Part III, are designed to support and activate a formal UC Digital Collection initiative by suggesting strategic directions and actions, and providing a framework for continuing digital collaboration discussions.

Framework

The UC Libraries are at a critical juncture in the development of digital library services and initiatives. Over the last decade, there have been a number of stand-alone, “one-off” digital projects at each library that have both advanced UC’s digital presence incrementally and have provided valuable experience (albeit unevenly) across the campuses.

However, continuing in this vein threatens to mire the UC Libraries’ in mediocrity, as collectively it will result in an eclectic and diverse — but disjointed and unrelated — collection of digital initiatives. Most importantly, this approach diverts resources and attention from the “big picture”

of our critical long-term goal: creating a rich, integrated, whole UC Digital Collection that is an international resource with high-quality digital content, available via robust user discovery services, in a sustainable environment—in short, a collection that in all ways showcases the excellence of the University of California Libraries.

It is now time for the UC Libraries to acknowledge the importance of digital collections by focusing on strategic planning regarding collection development collaboration, long-term preservation, and expertise and tool development. The current financial situation makes collective strategic planning for digital initiatives ever more imperative. Support for building UC's Digital Collection is critical if we are to reduce duplication of effort and more effectively use our limited resources.

Part II: The UC Digital Collection

Definition

In our charge, the Task Force was directed to “explore the notion and develop a broad, overarching definition of the “UC Digital Collection” and its relationship to current/traditional collections.”

Not long after the Task Force was charged, the Collection Development Committee (CDC) distributed a report "University of California Library Collection: Content for the 21st Century and Beyond" (July 2009), which broadly discusses the UC Collection made up of both licensed commercial digital products and open access born-digital scholarship. For the purposes of this DLSTF Report, we define "UC Digital Collection" as focusing mainly on the latter--born-digital scholarship and digitization of physical collections.

Through research and a series of discussions, the Task Force developed this definition:

The University of California (UC) Digital Collection is a collaborative effort of the UC Libraries to strategically create, manage, preserve and enable reuse of authoritative digital collections. It features selected resources digitized and born-digital within the UC system, targeted to the diverse needs of a vast and broad ranging academic community. Using advanced technologies, the UC Digital Collection is integrated with and extends the collections and services of the UC Libraries.

The Task Force discussed this definition with the Collection Development Committee (CDC). Both groups agreed that it complements the broader definition CDC presented in the report “University of California Library Collection: Content for the 21st Century and Beyond” (July 2009).

The UC Digital Collection – Envisioned Priorities

The Task Force recommends that the UC Libraries commit to five key priorities for the UC Digital Collection. Each of the priorities is rooted in our traditional library values; we believe this is the shape they will take in the digital realm. The level of commitment to these priorities will impact planning, technical architecture, implementation, growth, and the speed at which we will be capable of creating the UC Digital Collection.

To build a world-class digital collection, the Task Force recommends the UC Libraries:

Establish and commit to significant, sustainable funding for the UC Digital Collection to support collections, technology, and personnel.

- Elevate user-centered discovery and delivery to ensure a convenient, high-quality experience for UC faculty, students, and researchers.
- Integrate digital initiatives throughout and across the fabric of the UC Libraries' collections, services, and processes.
- Build both broad and deep digital collections through the dual processes of digitizing physical items and addressing new, born-digital materials—implementing coordinated and collaborative processes.
- Leverage the technical resources and expertise of each campus to create a robust and sustainable infrastructure systemwide.

The following sections explore in more depth why developments and activities in these categories are essential for the UC Digital Collection.

Establish Sustainable Funding

The DLSTF notes that the UC Digital Collection will demand a significant investment of resources. The UC Libraries should commit to moving digital initiatives to the strategic forefront, allocating significant, sustained funds to support the building of digital collections, a robust technical infrastructure, and appropriate staffing. This is imperative for success.

Traditional print and licensed resources are funded from the Libraries' collections budgets—an established, identifiable, and traditional funding source. While the amount varies year to year and campus to campus, it is nonetheless a consistent funding source. Digital initiatives have been primarily funded as “extra” sources of support are identified, from one-time funds or grants. We recommend the UC Libraries develop an established budget for the creation and ongoing maintenance of the UC Digital Collection.

Elevate User-Centered Discovery and Delivery

Digital library development within UC was based on a foundation of several key principles that should continue to serve as guiding values for our digital library services today:

- **Keep it simple for the user:** “In making collection decisions to allocate finite resources to the greatest institutional advantage, the (UC Digital Library) should treat faculty and student time as the resource that must be most carefully conserved: access, support services, and preservation should be organized to enable faculty and students to find and use the information they must have most efficiently.”
- **Aim for the broadest possible access:** “although material may be placed in its collection with access restrictions, the intent should be that the information would eventually be made public... Informing all functions of the (UC Digital Library) should be the intent to support and enhance the free flow of information and scholarly discourse.”

- **Discovery and delivery should be based on user practice, rather than library/institutional practice.**

The convenience afforded by the Internet to discover information has greatly changed users' perceptions of how library resources can and should be accessed. The adage "if you build digital collections, users will come" has been challenged by user mental models, and reflected in their online activities. The extent of content widely available online has elevated the principle of user-centered discovery and delivery, so that it has become as critical as the collections themselves. Users discover content from a variety of places and through a variety of methods beyond a specific website or even a library catalog. They also care about their experience, including how quickly they find what they are looking for. In this climate, the UC Libraries as information facilitators need to help users accomplish their research and obtain high-quality content in as few steps as possible.

We need to provide a systemwide delivery experience, paying specific attention to the way we present collection- and item-level information. This is increasingly important since many users access online items via search engines, bypassing the homepages of repositories. Steps should be taken to ensure that the UC Digital Collection ranks high enough to be viewed on the first page of search results. Collections and items should also be branded so that search results clearly identify UC as the content provider. Search engines may help lead users to the UC Digital Collection, but the user onsite experience will determine whether they succeed in their research and whether they return the next time. Whatever the UC Digital Collection looks like to the end-user, it will need to be simple, engaging, and clear that the content comes from the trusted source of the University of California.

Finally, the UC Libraries need to leverage our capabilities in a variety of web expertise, such as user experience design for different interfaces (including mobile), search engine optimization, and web analytics. Traditionally, our core competencies have included acquiring and managing collections and building services around them. Successfully managing and delivering digital content is more of a multidisciplinary practice, where web expertise is a necessary skill set. More and more, the user experience will be the end product and the user interface the application.

Integrate Digital Initiative Activities

It is vital that the UC Libraries coordinate the life cycle of digital objects from creation through description, access/publication, and long-term preservation including digitized items from our collection and born-digital items produced through research and instruction. The Task Force recognizes that any strategy will require development of a model that:

- Provides systemwide collaboration.
- Supports autonomy of campus needs/concerns.
- Brands all digital assets produced in the UC System.
- Creates an excellent user experience.

It is important that UC Libraries develop workflows, guidelines and best practices that support a collaborative approach to selection, enabling the creation of rich, integrated, and effective digital collections while showcasing and preserving the identity of individual campus collections.

Every project will surface new challenges, and thus it is expected that every project will evolve a little differently. That said, however, efforts should be made to put in place a workflow or planning checklist at the beginning of each digital initiative that complements the overall systemwide effort. This process will help determine at which point along the path the initiative moves from a local to a centralized infrastructure.

The UC libraries need to develop policies for when and how digital objects are cataloged and included in Melvyl/Next Generation Melvyl and OCLC. In addition, policies need to be developed for when objects are submitted to eScholarship, OAC, Calisphere, and third party vendors such as ArchiveGrid.

Next Gen Technical Services Task Force (in consultation with HOTS) should explore the challenges and opportunities inherent in leveraging technical services resources systemwide to create descriptive and administrative metadata for digital initiatives. Developments in network level services, coupled with UC's current fiscal situation, have set the stage for transformative change in the deployment of staff and resources in support of local digital initiatives and systemwide collaborations.

Build Broad and Deep Digital Collections

At this time, UC Libraries should move beyond looking at digital initiatives as pilot or experimental. Projects should be evaluated and selected based on established collection development criteria and given a high priority as they help move the UC Digital Collection forward, for example by filling a subject gap, complementing other collections (analog or digital), or showcasing UC's unique collections. This approach does not preclude libraries from engaging in digital project opportunities strategic to their campus needs.

The Task Force believes there is a difference between a "collection of digital initiatives" and a true "digital collection." A digital collection would make clear the connections and relationships between digital initiatives and physical collections—connections that may already exist but have not yet been explored or documented.

An inventory of current and completed digital initiatives revealed our combined digital assets to be eclectic and diverse. Some initiatives were undertaken as part of a strategic decision-making process, but most appear to be opportunistic. While each UC library has in place collection development policies and long-term strategies for building collections, only some libraries include in them the development of *digital* collections. There is a need for more strategic direction as we partner with faculty and researchers to collect and create new digital content.

The recently released CDC strategic visioning document "The University of California Collection: Content for the 21st Century and Beyond" (July 2009) articulates a refocused mission for the UC Libraries. It envisions a UC-wide collection development strategy and specifically addresses collecting and creating new digital collections in an integrated and collaborative fashion. The fact that these concepts have emerged in the work of both the Task Force and the CDC suggests that these discussions will need to be ongoing, and include broad and diverse participation.

Areas for future development for the UC Digital Collection can be broadly grouped into two categories: digitization of physical collections and management of new streams of content such as born-digital resources. We should expand the array of content contributors with whom we partner, building on current relations (e.g., with faculty) and initiating new partnerships (e.g., with UC museums and other non-library entities). The libraries should seek to support the management of UC digital assets, regardless of where they are produced.

In compiling the inventory of the Libraries' digital initiatives, the DLSTF also discovered several digital (and non-digital) collections and initiatives all over the campuses—including in affiliated or independent libraries, museums, research centers, etc.—that complement the Libraries' collections. As we did not complete an exhaustive search of these resources, this is an area that warrants further exploration, and illustrates that there are many collaboration opportunities within UC.

Leverage Technical Infrastructure

The UC Digital Collection should leverage the strengths of individual campuses both in terms of collections and technical resources and expertise. We realize that each campus library in the UC system has unique collection interests, staffing, and resource configurations; it is precisely this diversity that will give the UC Digital Collection its robust character and ability to support a broad range of faculty and student research and teaching interests.

The technical infrastructure for digital initiatives should be based on a life cycle workflow — documented by the CDC as creation, ingestion or acquisition, documentation, organization, migration, protection, access, and disposition — that allows for the smooth transition of digital initiatives from their place of origin to larger UC spaces for discovery, access, and preservation.

Systemwide, the technical infrastructure will need to be coordinated in such a way as to leverage the existing capacity of our campuses as they participate in digital initiatives supporting local needs. This will require investments to broaden our technical capacity. As the UC Libraries decide and embark on digital initiatives that will strengthen the UC Digital Collection, the system technologies must be scalable to build and support the collection.

Building the UC Digital Collection will require commitment from each campus to provide access to their objects, to allow their metadata to be harvested and their digital files to be accessible.

LTAG has reviewed the Task Force's Technology Inventory, which revealed a wide range of tools and technologies used across the UC libraries. Functionality and capability is uneven across the campuses, and this may be an area where sharing resources across or between campuses would be beneficial. The diversification of technology needs to be factored into the guidelines and best practices that are developed for all aspects of the life cycle workflow.

Part III: Second Phase Work Plan Recommendations

Directed in its charge to “develop a strategy for creating a “Second Phase work” plan,” the DLSTF suggests the following recommendations as the basis of such a plan. These are designed to support the five envisioned priorities for building the UC Digital Collection. The recommendations are loosely grouped in three categories: people, policy, and processes. However, they do not appear in any particular order, as they are designed to be interdependent, cross-referential, and potentially approached in a variety of ways.

1. Gather a group of experts to create a work plan and coordinate activities for the UC Digital Collection, as envisioned in this report and as directed in the third element of our charge (“recommend inter-ACG communication processes and procedures that would help ensure ongoing interdisciplinary input and participation. ”)

- Membership in this group could include the digital initiative coordinators from each campus and staff from the CDL. This group’s charge should include:
 - Analyze the start-up and ongoing cost of implementing the UC Digital Collection.
 - Articulate and maintain metadata guidelines, policies, and documentation to ensure integration and access, and determine how to integrate workflows with CDL services.
 - Define, in consultation with CDC, PAG, and UC3, the minimum level of preservation expected of each campus (structure, standards) and develop and document a preservation path—taking into account the idea that preservation is an activity, not necessarily a place.

2. Establish a working group to address the challenge of rights management, including copyright restrictions and fair use. The working group should:

- Define the role, responsibilities, organizational placement, staffing and other resources required to establish and maintain a centralized rights management clearance center supporting the creation of the UC Digital Collection. Activities could include:
 - Creating library system wide policies on rights management.
 - Providing consults on establishing collection copyright status for digital projects.
 - Creating documentation such as guidelines, best practices and procedures as needed.
 - Coordinating education and training opportunities systemwide.
 - Liaising with UC General Counsel and campus library representatives as needed regarding rights management policies and practices.
 - Collaborating with appropriate systemwide groups (such as CDC, HOTS, HOPS, etc.) to address rights management implementation issues such as metadata requirements and technical infrastructure.

3. Ensure that the skills of our library staff are aligned with the work required to support the next-generation of libraries and set up a system for sharing expertise across campuses.

- Three areas identified for expanding competences are: 1) project management skills, which are essential for collaborative, distributed projects; 2) web expertise, such as user experience design for web and mobile, search engine optimization, and web analytics; and 3) rights management.
- The technology inventory provides some idea of experience and expertise on the campuses; LTAG could consider ways to leverage this.
- Consider creating centers of competencies in particular areas; for example if one campus gains expertise in a particular area (e.g. datasets) it should be fully leveraged by others rather than duplicated.
- Investigate models for trading expertise, such as the 24/7 reference model, that do not require the transfer of funds.

4. Commit to assessment and continuous improvement to enhance the delivery experience throughout the UC Digital Collection—by listening to and engaging with our users—at the campus and systemwide levels. (Note: this could be assigned to HOPS.)

- Create standardized user research methodologies and guidelines.
- Charge the appropriate group of experts to actively investigate new services and delivery platforms (such as mobile).
- Investigate the technical feasibility of new services (possibly LTAG).
- Create search engine optimization best practices.
- Create standard benchmarks/metrics to assess and improve site performance via metrics, such as user satisfaction rate, user return rate and user abandonment rate.

5. Develop and articulate a collection development policy for digital collections and identify projects that advance a digital library agenda and provide efficiencies. (Note: This could be assigned to CDC. The Task Force consulted with CDC on this issue, and they agreed this is within their purview.)

- The Task Force recommends the UC Libraries consider using the Mass Digitization Collection Advisory Group (MDCAG) processes as a starting point. This former CDC-initiated project was brought to our attention over the course of our work. We believe it is worth revisiting because it offers a framework that can be broadened to determine the selection and prioritization of digitization projects.

- Develop a systemwide collection development policy for UC digital collections, as well as a recommended list of digital initiative priorities for collaborations and local collections that enhance the UC Digital Collection. In addition, provide a mechanism for libraries or other units to propose initiatives that may be “put on the back-burner” until resources are available or other priorities are met.
- Propose a digitization/digital collections budget based on stable and sustained funding.
- Review and analyze the DLSTF collection inventory to obtain a snapshot of current and past UC digital initiatives and plan possible future initiatives.
- Consider the following potential areas of exploration (though there are certainly others) which we noted in the course of our work: Electronic Theses and Dissertations (ETDs), government documents, newspaper digitization, photographic collections, and collections for which an EAD finding aid has already been created.
- Make a concerted effort to investigate and implement a systemwide solution for ETDs. (During our conversations and those with other groups, ETDs consistently rose to the top of the list of priorities).

6. Investigate new streams of UC created content, including digitized and born-digital resources, and develop guidelines for acquisition, access, and preservation. (Note: This could be assigned to CDC in collaboration with CDL and appropriate campus groups.)

- Although it is a campus responsibility to identify and collect faculty-created content, systemwide guidelines could assist campuses in developing faculty targeted communications and coordinating efforts with CDL’s Publishing Program.
- Collaboration with the UC museums should be a high priority, as well as other non-library institutions such as campus visual resource centers and institutes of research.
- Investigate the digital initiative processes or infrastructure already in place for non-library collections on each campus.
- Increasingly, grants require a plan for data management and archiving. Libraries need to work with Offices of Research and participate at the beginning steps of grants, working with PIs to ensure well-formed data and develop a plan to transfer to the University’s archives/University’s custody.
- Revisit bibliographer group charges to ensure that they encompass new content streams.

7. Create a process to support collaborative collection building, for example, a mechanism to collect and register digital initiative projects that includes digitized and born-digital resources. (Note: This could be assigned to CDC.)

- An evolving registry of digital projects will be necessary for collection management and development. At present, there is no method for sharing information about digital

initiatives to facilitate collective or collaborative collection development and identification of resources. Compiling this data will surface commonalities in user needs, subject matter, or methodologies that may allow projects to secure funding or gain efficiencies.

- The registry could also be used to generate metadata for discovery points.
- The inventory assembled by the DLSTF for this report is a good starting point for identifying digital collections/initiatives across UC; however, it is simply a snapshot of current and past initiatives, and must be maintained in order to be of value.
- The registry should include digitized and born-digital content; as well as relevant local (library and non-library) and CDL initiatives.
- The registry should also contain access rights information and preservation information, instructions, and location.

8. Document and make available the details of licensed and acquired resources as they are managed through the entire life cycle, in order to inform collection development decisions and create efficiencies. (Note: This could be assigned to CDC.)

- Digital initiatives should be informed by and complement the decisions made regarding licensed and acquired resources. Currently there is an established decision-making structure for systemwide collection development of licensed resources; however that structure does not fully encompass or integrate with the development of digitized and born digital resources.
- Information regarding the life cycle activities surrounding our licensed content—selection, acquisition, access and discovery, migration, preservation, assessment and de-accessioning—needs to be documented and made transparent in order to fully inform decisions regarding digital resources and to enable effective curation of the UC Library Collection.

9. Adopt and implement technologies and tools to create an interoperable model to ensure wider discovery of UC Digital Collections through a variety of services.

- The Task Force envisions a system wherein metadata is aggregated from the various, campus-based digital collections to create a UC Digital Collection that would enable metadata to be uniformly available for wide distribution.
- The Task Force recommends that LTAG review the feasibility of the available options and puts forward a model for the best implementation of such a system.
- Below are a number of assumptions about such a model and how it will function:
 - There will be a low barrier for contributing metadata.
 - The search results will point users back to the campus where resource(s) originated from or back to a CDL service.
 - Campuses can control what gets contributed.

- The ability to restrict access because of licensing agreements or copyright restrictions will be available.
- Content can be accessible from multiple venues. For example, digital items can be submitted to a CDL service in addition to the metadata being available in the UC Digital Collection. The decision to do both or go beyond the UC Digital Collection would be made by campuses based on audience needs.
- Implementation will be phased. One possible model is to start with UC library, freely available content, then move to non-library institutions, mass digitization content and licensed resources and beyond.
- The architecture will be flexible enough to allow for collecting metadata from third party sites such as iTunesU, Flickr, and YouTube.
- The architecture will be flexible enough to allow for continuous improvement as user experience and assessment determines changes.
- The design and future upgrades will be informed by end user needs.
- The collection will be indexable and searchable by a search engines and will comply to search engine optimization best practices in order to ensure wide discoverability.

10. Put in place clear processes and supported technologies at every campus so that they can locally create and manage their digital collections and move or share objects and/or metadata to a central access point.

- Each campus should manage their digital objects throughout the entire information life cycle. To help determine whether to choose a centralized or local solution, it should be made clear which core set of services and functionality will be maintained centrally.
- Significantly improve communication about tools and services under consideration or development, either at a campus or at the CDL, to facilitate collaboration and shared expertise.
- Every campus should have in place technical infrastructure and staff that allows them to share metadata for inclusion in the UC Digital Collection. HOTS should be charged to administer a survey to determine the obstacles to creating descriptive metadata and moving objects to the systemwide level.
- Develop a strategy to address the unevenness of technology capability and capacity across campuses.
- Develop aligned workflows for born-digital and digitized materials.

11. Implement a process for exploring and pursuing collaborative grant proposals and innovative ways of partnering with institutions outside of UC.

- Once the UC Digital Collection registry is in place, the CDC could use that to establish commonalities or gaps, and assess available grant opportunities, and find partners for collaboration.

- Consider charging an ad-hoc or standing committee to monitor available opportunities, and possibly even issue RFPs to potential partners outside of UC.

Appendices and Supporting Documents

1. DLSTF Wiki [Internal TF use]
2. [Digital Library Services Task Force Charge](#)
3. Inventories: Digital Initiatives and Current Technologies
 - a. [Current & Planned Digital Initiatives Inventory](#)
 - b. [Current Technologies Inventory](#)
4. [University of California Library Collection: Content for the 21st Century and Beyond](#)
5. [The UCDL: A Framework for Planning and Strategic Initiatives, October 1996](#)
6. [DSLTF Workflow Chart](#)
7. [DLSTF Infrastructure Diagram](#)
8. [MDCAG](#)
9. [Bibliography/Literature Review](#)
10. [Digital Library Models \(National and International\)](#)
11. [SWOT](#)
12. [DLSTF: Activities and Progress: March – December 2009](#)
13. [DLSTF Interim Report](#)
14. [Rights Management Recommendation](#)