Communication and Collaboration:
Priorities and Perspectives on the UC Libraries-CDL Partnership

Findings and Recommendations from the CDL Spring 2006 Assessment Project

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http://www.cdlib.org/inside/assess/evaluation_activities/docs/2007/cdl_spring2006.pdf
Last modified 04 April 2007

TABLE OF CONTENTS

I. INTRODUCTION

Recognizing that currency with campus needs, interests, and capacity for service development is essential to its success, in early 2006 the California Digital Library ("CDL") embarked upon a series of informational interviews with libraries across the 10 UC campuses.[1] The purpose of the interviews was to gather information that would provide CDL with insight into issues vital to the campus libraries, including:

- **Campus priorities** in regard to current and future digital information tools and services.
- **Campus perspectives** on existing digital information tools and services (their strengths, weaknesses and areas ripe for improvement or innovation).
- **Campus capacity** for digital information tool and service development, whether independently or in collaboration with CDL or others.

Areas *not* explored in this series of interviews include:

- **Collection development activities**, such as licensed content, shared print and mass digitization.
- **Collection management activities**, such as shared cataloging.
- **Scholarly publishing activities**, such as the eScholarship Repository and other Internet-based forms of scholarly communication.

Interviews were begun by the CDL assessment team in April 2006 and typically included a campus AUL, a collection development or special collections librarian, and persons involved with building digital services and tools. In total, 51 individuals across the 10 UC campuses were interviewed, via in-person visits to seven campuses and teleconferences with three campuses.[2]

II. COMMON FINDINGS ACROSS CAMPUSES

Campus library priorities and perspectives in regard to digital information tools and services depend on several environmental factors, such as the breadth of local resources available to the campus for undertaking digital development projects, the local technology infrastructure, collection strengths, and campus culture. Nonetheless, common themes were expressed by interviewees across the campuses, including:

- The need for improved and more frequent CDL-to-campus communication and collaborative development; the need for CDL to define and communicate its priorities and strategic plan.
- The need for improved and more frequent campus-to-campus communication and collaborative development; the desire for cross-campus fertilization and collaboration.
- The desire for a high-level (UC libraries) articulation of digital library issues, priorities, planning and development paths.
- The difficulty of managing, accessing, and preserving increasingly complex digital assets, e.g., large data sets, geospatial data, streaming audio and video, and other born-digital material.

[1] SOPAG was notified of the project via email on March 15th, 2006 and at the March 17th, 2006 SOPAG meeting.

[2] See Appendix 1 for a list of interviewees.

- The challenge of meeting the expectations of digital library users who increasingly rely on widely accessible Internet technologies and services, such as Google and Wikipedia, to conduct basic research.

III. AUDIENCE-SPECIFIC FINDINGS

In addition to the above common themes, patterns of priorities and perspectives reflecting the unique roles and responsibilities of interviewees emerged. Examples include:

Associate university librarians, directors of digital initiatives, and directors of library technology expressed the need to:

- Clarify the relationship between CDL and campus digital libraries.
- Understand CDL development plans in an effort to focus local development resources.
- Foster local innovation while eliminating redundancy and basic inefficiencies.
- Increase and streamline campus-to-campus and campus-to-CDL collaboration.
- Increase capacity for local digitization projects.

Information technology staff, systems department staff, and digital library programmers expressed the need to:

- Improve management of collaborative projects undertaken in partnership with CDL, especially planning and communication.
- Develop tools that promote deeper integration of local content into CDL collections.
- Build local institutional repositories; preserve and ensure persistent access to digital materials that result from UC research and teaching.
- Clarify which of its tools and services CDL considers production quality and which it considers prototype or demonstration projects.

Librarians with primary responsibility for technical services, bibliographic services, public services, special collections, and built digital content expressed the need for:

- Tools and strategies for gathering, managing, and preserving new forms of digital content.
- Tools that improve access and discovery of digital resources for end users.
- Simplified search screens that increase ease-of-use for comprehensive collections of scholarly information, ranging from licensed resources to locally developed content.
- Strategies for increasing the functionality and relevance (to end users) of OPACs.
- Metadata creation tools and training, in particular, METS creation tools and METS profile development.
- Increased capacity for local digitization projects.

IV. COLLABORATION: CDL ↔ CAMPUS COLLABORATIVE PARTNERSHIPS

> *"Where does CDL's role end and ours begin? It's a good question. We've defined our own space of working. There are areas that we've decided not to work in because we don't want to duplicate what CDL is doing. But we have a strong sense that we want to manage our own digital assets so that we can provide campus-specific services and access to those assets. We want a complimentary relationship, not a competitive one."*

The majority of interviewees expressed the strong belief that collaboration between campus librarians, technology staff, and CDL is a prudent and necessary investment of both local and systemwide resources. Nonetheless, university librarians and their staff grapple with fundamental questions pertaining to collaborative digital library development: for which projects, and in what

capacity, do they collaborate with CDL or other campus partners? A range of organizational, economic, technological, and strategic factors contribute to the decision to participate in a collaborative partnership. One interviewee reflected: "This [when to collaborate] is always going to be a question for us. How much duplication do we want to do? How much independence can we afford?"

Over the course of campus interviews, patterns emerged pertaining to the *types* of partnerships and projects that have been formed by CDL and campuses, and the characteristics of each that contribute to or hinder success. Types of partnerships include:

CDL as service provider: In this form of partnership, CDL assumes the role of service provider with clearly defined (in some instances, contractual) roles and responsibilities. Typically, campuses partnering with CDL provide content or data that meet defined standards, and CDL provides the technology and end user interface, *e.g*., Melvyl and other production services. These relationships are often well established, include all campus libraries, and require minimal interaction between the partners. Interviewees expressed a high degree of satisfaction with these partnerships.

CDL as shared service developer: In this form of partnership, CDL has typically undertaken development of technologies or applications that enable campus libraries to build customized end user services; when the project approaches the beta stage, CDL partners with a campus library interested in assuming an early adopter role. Campuses likely to participate in these partnerships are those with limited technical resources available for development projects, and the campus liaison may possess only basic technical expertise. Partner satisfaction within these relationships depend upon features such as skilled project management, clear communication, well established roles and responsibilities, and investment of resources by both partners. Interviewees expressed the need and desire for these partnerships, but for reasons explored later, report dissatisfaction with past outcomes.

CDL as primary developer and collaborative partner: In this form of partnership, CDL identifies a major piece of digital library infrastructure required by UC libraries, and then undertakes the development of a technology to meet the need. Campuses likely to play an active role in these collaborations are those with technical resources available for large development projects, though the end product can be adopted by campuses with limited technical resources. An example of this type of collaboration is the Digital Preservation Repository ("DPR"), where submission and access are possible through a web-based user interface or Java API. Factors influencing partner satisfaction include those listed above in the "CDL as technology service developer" relationship, with a special emphasis on early communication and needs assessment, all partners possessing similar technological expertise, clear articulation of strategic objectives, and mutual accountability. Interviewees expressed a strong desire to participate in these collaborative partnerships and perceive them as "win-win" propositions; several held the DPR as a model for collaborative success.

A. Campus Capacity for Collaborative Partnership with CDL

Recommendation: Understanding that the campus libraries possess a range of technological resources, CDL program managers should develop collaborative opportunities that engage campus partners possessing both limited and extensive access to technical resources and support.

"In that last CDL Update, I remember getting really excited about all the different projects, and the possibility of customizing services… I don't know if we can really do much here. I have the perception that CDL thinks we have the

resources. I definitely want to be involved, I think it's great, but a shared development model doesn't work for us."

"Obviously, as a smaller campus, we would like to utilize your services as much as possible. We're trying to figure out what services you are providing and what you are not, so that we can act locally in supporting things we know you're not going to support."

Just as UC campuses vary widely by size, they also vary widely by capacity. Campus capacity for collaboration with CDL is impacted by several environmental factors, such as the breadth of resources available to the campus for undertaking digital development projects, the local technology infrastructure, and collection strengths. By far the most limiting factor, and the most difficult hurdle for a library to overcome, is a lack of local programming support. For campus libraries facing limited resources, entering into collaborative partnerships with CDL and other campuses is particularly vital.

Regardless of capacity, the majority of interviewees expressed the desire to partner with CDL on development projects, and even campuses with the most limited technical resources want the opportunity to collaborate and contribute according to their capabilities. For example, a campus library with few programming resources may possess an outstanding understanding of user needs and behaviors, and have the capacity to contribute significantly to usability testing and user needs assessment. CDL program managers should remain cognizant of the range of capacity for collaboration and create opportunities for all campus libraries to partake in collaborative projects. Particular effort should be made to partner with those campuses lacking local programming support.

B. Communication and the CDL ↔ Campus Collaborative Partnership

Recommendation: Communication within CDL ↔ campus library partnerships should be driven by CDL program managers; new robust lines of communication should be established; sensitivity to the needs of campus libraries should be improved.

"We need a lot of notice if a CDL system change is going to have an impact on our production systems. We have our own grant deadlines and commitments! Sometimes their [CDL developers'] needs start interfering with our production system."

Inadequate communication among project partners causes frustration at all levels. Several interviewees who have participated in CDL partnerships shared instances where obtaining information was difficult, especially technical documentation for CDL's systems. The need for communication is particularly important when it comes to actions that potentially affect campus' production systems; campuses require substantial advance notice of future downtime scheduling.

Interviewees expressed the concern that CDL sometimes lacked awareness of partners' needs and timelines when implementing changes and that adequate notification regarding future upgrades was not sufficiently consistent. Modifications to the CDL technical infrastructure can have deep impact on campus projects, particularly for those campuses with limited programming resources. In one instance, the ramifications of a CDL system update were considerable, requiring significant additional staff resources and deeply affecting the campus partner's ability to launch its project in the expected timeframe.

Campus partners are sympathetic and know that projects never run smoothly. Interviewees also recognize that in some instances CDL is following established communication protocol, but that "information is not trickling down to us," leaving them to feel "out of the loop" and uncertain where

to go for information. They also conceded that the issue might be that technology is evolving so quickly that developers don't always know the answers to their questions. In these cases, however, it is especially important for CDL to keep partners informed about how projects are evolving.

C. Project Management and the CDL ↔ Campus Collaborative Partnership

Recommendation: CDL project managers responsible for CDL ↔ campus collaborative projects should adopt more effective project management processes, with an emphasis on scope definition, requirements, adherence to timelines, and adequate documentation.

"I would like to have seen a requirements document on CDL's part, because functionalities kept being added as we were going along. There was never any definition of what was required. Somebody on our campus would ask CDL to add functionality, and CDL would say, 'yes, we'll add that feature.' The project just kept going and going. Sometimes scope creep is OK, but who's approving that scope creep? Who's making that decision?"

Interviewees report that the lack of a formal project management process has contributed significantly to confusion and dissatisfaction within past CDL-campus project partnerships. Particularly difficult are scope changes that occur during the implementation phase, and a lack of basic project and technical documentation. CDL staff should remain sensitive to the fact that changes in project scope or technical infrastructure requirements can have an enormous impact on campus workloads. One interviewee described the following situation: "CDL migrated from one version of software to another when we were in the middle of a project. That's turning out to be huge – we needed to know a year ago so we could factor it into our work plan!"

The adoption of various project management tools, e.g., web-based project management software or wikis, that can be made accessible to project partners, holds the potential to significantly improve the outcomes of CDL-campus project partnerships. Additionally, all project partners need to be equally committed to good project management practices, to maintaining project momentum, and to excellent communication.

V. Collaboration: Campus ↔ Campus Collaborative Partnerships

Recommendation: Recognizing that campus-to-campus collaboration is a vital mechanism for advancing digital library development, CDL should encourage and support the creation of a formal mechanism for identifying and facilitating potential partnerships.

"One of the things we don't do very well is to collaborate when there's an opportunity to do so. We're not capitalizing on what's already been accomplished… Can we expand the shared program idea beyond the Shared Cataloging Program? Why not contract with other campuses?"

"We wait until another campus figures out how to do something. For example, the San Diego programmers do what they need to do then pass it on to us. It's an essential dynamic."

The UC libraries are well served by campus-to-campus partnerships, though formal mechanisms for identifying collaborative opportunities have yet to be established. Interviewees in campus libraries with limited programming support expressed enthusiasm for campus-to-campus partnerships and knowledge sharing arrangements; those working on larger campuses with robust programming resources recognize and welcome their role in developing tools for smaller

campuses. Regardless of the campus resources available, most interviewees expressed a practical sense of independence coupled with a positive approach to partnerships of all types. One interviewee suggested, "The smaller campuses would like to see UCLA, UCB, and UCSD working together – collaborating and delivering tools, in sync with CDL."

The Shared Cataloging Program, established in 2000 and based at UC San Diego, was mentioned by several interviewees as a possible model for future campus collaborations. Suggestions for establishing a data consultancy service for the purpose of assisting campuses with metadata analysis and specifications (paid for by joint funds) was put forth by interviewees at three campuses.

Although facilitating campus-to-campus collaborative partnerships is outside the scope of CDL's mission, CDL representatives to SOPAG and other relevant UC library groups should support the creation of formal processes that will help identify needs, coordinate resources, and foster campus-to-campus partnerships.

VI. CDL Support to Campuses Pursuing Grant Funding or Seed Money

Recommendation: Recognizing the importance of its support to campuses pursuing grant funding or seed money for local projects, CDL should encourage and respond positively to campus requests for assistance, both financial and otherwise.

"Having CDL's political will behind initiatives is vital. CDL gives us political capital… There's a lot of muscle behind CDL and it has a good reputation with granting agencies. This is a very important form of assistance."

Interviewees shared a range of instances where CDL support for local projects was essential to obtaining funding, securing a non-UC partnership, or simply helping to bring an idea to fruition. Of particular importance were instances where CDL provided seed money for digitization projects or lent its support to a campus library in pursuit of grant funding. CDL should not loose sight of its potential to assist in this manner, as it is of vital importance to campus libraries and can be the key to a project's success. One librarian noted: "When we go out to work with other institutions, if CDL has bought into the project, then usually something happens. CDL's involvement gives our campus some clout. It's very helpful."

VII. CDL and the Development of Standards and Best Practices

Recommendation: CDL should maintain its involvement in the drafting, adoption, and enforcement of technical standards and digital library best practices.

"I'd like to see CDL develop a basic philosophy behind standards. There's a lot of effort that goes into standard formation and developing a technology for it only to be undercut in the end by saying that the barrier is too high, or that if we uphold the standard we'll leave too many people behind. We end up undercutting the standard until the standards aren't really standards!"

CDL's contribution to the drafting and adoption of standards and best practices is essential to campus partners, and work accomplished by CDL is of value not only to the UC community, but to the broader academic and digital library communities. Interviewees expressed the hope that CDL will continue its important work in this arena, and several urged CDL not to be hesitant in holding project partners to technical standards and digital library best practices. Campus colleagues expect to collaborate with CDL in developing standards, and some expressed willingness to lead the effort. One interviewee explained the desire to be engaged in the process:

"It's good for our staff, it's good for our program, and I think it's a contribution to the broader community."

VIII. COMMUNICATION

> *"I think CDL is doing really, really good things. But in a sense, they suffer from working in a bit of a vacuum. Unless what CDL is doing is understood and matched by the campuses, there is a lot lost. It would be great if the CDL could communicate a more complete roadmap. Somebody's got to assist the campuses in determining what it is they need to do to play and work effectively with CDL – both CDL and the campuses could benefit from that."*

Interviewees expressed a lack of clarity around CDL's role, its long-term development strategy, and which CDL tools and services should be considered production versus prototype. The primary objective of CDL communications should be to clearly communicate its role, responsibilities, and long-term plans to the campuses. Communication should be driven by CDL program and service directors, and should be frequent, authoritative and targeted.

Perceptions about CDL's primary responsibilities and its relationship to the broader UC library environment vary widely, indicating that CDL is not effectively communicating its mission and goals to campus colleagues. When interviewees were asked to reflect upon what they perceive to be CDL's primary role relative to UC campus libraries, their responses spanned a broad range of opinion, including:

- "To support what the UC libraries have decided to do and solve technological problems that arise."
- "CDL is a co-library with the same autonomy as campus libraries."
- "CDL's work is defined by the ULs and SOPAG."
- "I'm not sure! It's hard to know where CDL and campus roles begin and end."

Uncertainty on the part of campus libraries in regard to how responsibilities are defined leads to redundancy and fuels basic inefficiencies; interviewees expressed the need and desire to focus their limited local resources on those services that CDL will not be developing or providing as a shared service.

Myriad mechanisms are available for distributing information: formal vs. informal, one-to-one, one-to-many, many-to-many, and many-to-one. CDL frequently depends on a hierarchical "CDL -> few -> many" chain distribution structure, *e.g.*, CDL -> Users Council -> campus library staff. Unfortunately, there are serious breaks in the established chains and CDL communication often does not reach its intended audience. CDL should develop robust strategies for overcoming the broken links in its effort to communicate effectively with campus staff and others. *Recommended actions pertaining to CDL communications include the following:*

A. CDLINFO NEWSLETTER

Recommendation: Designate CDLINFO as CDL's primary external communications medium; devote appropriate resources to developing CDLINFO into an authoritative, targeted and timely source of information.

> *"It would be useful for projects to provide an update once a quarter – something to remind people about the range of things going on. Three sentences is all you'd need. For such a long time CDLINFO was just about resources and databases, but now you need to do a little bit more."*

"I'm more likely to learn about CDL development plans at DLF or CNI than through CDLINFO."

The vast majority of interviewees report subscribing to (and consistently reading) CDLINFO, identifying it as the most direct and effective mechanism for CDL to communicate to a wide range of individuals across the UC campus libraries and beyond. Many identified their primary information need as targeted and authoritative communication on CDL projects under consideration and those currently in development.

Although most interviewees expressed appreciation for the simple "email notification with a link to a web page" format of CDLINFO, others noted that due to the large amount of information they are required to manage daily, they prefer the ability to subscribe to specific categories of information. Suggestions from these individuals include implementing targeted RSS feeds and redesigning CDLINFO to better support users who want to browse for information by category, project, or program.

Additionally, CDL must recognize the value of telling the story of its activities and influence on digital libraries to our UC audience, as well as to the broader digital library community. Interviewees noted that new CDL projects are presented at DLF forums and CNI conferences and suggested that a venue is needed for faster dissemination of innovations and project information to the internal UC audience. CDL staff need to ensure that information being delivered to the broader digital library community is also routinely published in CDLINFO.

B. Inside CDL Web Portal

Recommendation: CDL program and service managers should devote resources to drafting and posting to the Inside CDL web site comprehensive and authoritative project and program documentation, including project status updates and anticipated technical infrastructure changes.

"When a library staff member takes on a new area of responsibility, he or she looks at Inside CDL to see if there is something relevant posted on the site. We have a new employee orientation checklist, and getting to know Inside CDL is an item on the list."

The Inside CDL web portal is a vital resource for campus staff needing to obtain information about CDL programs and projects. Users of Inside CDL expect information found on the site be authoritative, complete, up-to-date, and easy to find, however, several individuals remarked that they found the site's organization, categorization, and navigation to be somewhat confusing.

Interviewees suggested priority should be placed on developing and maintaining content in the following areas: general program and project information; technical requirements and support, including infrastructure changes; standards and best practices; specific project planning documentation, including project status updates; and detailed contact information, including a list of "who does what".

C. In-Person Campus Visits

Recommendation: Recognizing that in-person visits are a highly valued venue for communicating with a range of campus library staff, CDL managers and staff should devote the time and resources required to foster consistent, two-way, in-person communication.

"All kinds of campus visits are great. People really like it when you come down. If you want feedback, campus visits are a good way. There's so much going on at CDL."

Campus colleagues place a high value on in-person visits and presentations by CDL staff members. Interviewees frequently cited the May 2004 "CDL Update" one-day workshop presentations on digital library services (Oakland, Irvine, UCLA) as an excellent venue for learning about CDL and building valuable personal relationships.[3] Logistical necessity, however, translates into only a small percentage of campus staff being able to attend the workshops, with campus libraries typically placing priority on attendance by newer staff members.

Although the effort required to plan and conduct CDL Updates is both recognized and appreciated by campus staff, interviewees expressed a desire for a more interactive format, rather than a series of presentations by CDL staff. One interviewee reflected that past CDL Updates were "incredibly useful, but seemed to be more *you* talking to *us*… It was a one-way conversation. It was great that day, sort of a kick-start, but not sustainable." Others suggested alternative formats, including structured small group discussion, focus groups, and interactive workshops.

Several interviewees who attended the "UC Digital Library Developers Forum" (co-sponsored by CDL and the University Librarians in August 2002) recalled it as an outstanding opportunity to learn not only about CDL projects and plans, but also those under development by colleagues across the UC library system.[4] The format, similar to the traditional DLF Forum format, was lauded as effective and inclusive.

D. Personal Communication

Recommendation: CDL managers and staff should commit to early and frequent communication with campus colleagues; effort should be made to clearly set and meet realistic project expectations, to respond to the needs of project partners, to build positive relationships, and to identify risks, opportunities and trends.

"To the extent that CDL sees itself as a service partner, providing basic services, it would be nice to know who to call! For example, I'd like to query a database owned by CDL and mine some data. Where do I go to even begin that process? Those kinds of things."

Given the complexity and interdependence of the projects we undertake, every individual at CDL holds the responsibility of communicating to campus colleagues in an effective manner. Of particular importance is clarity around project expectations, sensitivity to how changes in CDL services affect partner's workflow, and an understanding of the roles and responsibilities CDL and its partners have agreed to assume for any given project. Timely responses by CDL managers and staff to requests for information, whether via email or phone, are a vital and deeply appreciated form of assistance to individuals on campuses trying to accomplish work.

[3] One-Day Workshops on Digital Library Services for UC's Libraries.
< http://www.cdlib.org/inside/news/digital_library_service_workshop.html >

[4] UC Digital Library Forum, August 5, 2002.
< http://sun3.lib.uci.edu/%7Ecmriggs/Digital/agenda.html >

IX. UC LIBRARIES SYSTEMWIDE DIGITAL LIBRARY PLANNING AND DEVELOPMENT

Recommendation: CDL should propose to the University Librarians and SOPAG a full review of current systemwide planning mechanisms in an effort to assess whether they adequately address the expressed need for broader systemwide digital library planning. CDL should promote and participate in systemwide digital library planning activities.

"SOPAG and other all-campus groups are great, but we need a parallel group for digital library development. We're in a period where things are very fragmented with very little systemwide structure."

"We really need common goals defined from the point of view of delivering services to the user. We need to define the common requirements for a well-planned, operational digital library. An integrated understanding of relationships and the frontier where we're headed."

"Systemwide leadership is needed. Should there be a council or a steering group? We need to figure out what pieces are missing, what needs to be accomplished, and develop an overall roadmap. The focus would be on deliverables. Who needs to do what? It would be nice to do this at the systemwide level versus campus level."

The need – indeed the desire – for a high-level UC libraries' digital library ("DL") strategic planning process was voiced repeatedly throughout the campus interviews. Myriad interviewees expressed the belief that the establishment of a DL all campus group could significantly assist campus libraries by:

- Creating a vehicle for communicating about campus DL tools, services, and technology development plans and aspirations.
- Creating a systemwide structure for UC libraries' DL strategic planning and development.
- Reducing redundancy at the local level through partnership and collaboration.
- Fostering cross-campus fertilization by identifying campus DL development needs and surfacing opportunities for campus-to-campus collaboration.
- Advocating the development and adoption of DL standards.

One interviewee argued that although in the past duplicative development efforts may have been acceptable, even preferable from the perspective of innovation, digital libraries have reached a level of maturity where technical options are understood. He urged, "Now is a good time to really compare notes and take the best from each of these areas. It was OK to develop tools in parallel, in a sense you wanted to encourage that, but now we need to move into production. Make hard choices. Development can go on, but we need to take the fruits of our labor and anchor our systems. We need a road map."

Interviewee suggestions for how to structure a UC libraries' DL group included the existing all campus group ("ACG") model and the creation of an annual UC digital library developers' forum. As noted previously, interviewees who attended the "UC Digital Library Developers Forum" (co-sponsored by CDL and the University Librarians in August 2002) recalled it as an outstanding opportunity to learn about digital library projects and plans across the UC library system.[5] Others recalled the Strategic Technology, Architecture and Standards (STAS) Working Group, now

[5] UC Digital Library Forum, August 5, 2002.
< http://sun3.lib.uci.edu/%7Ecmriggs/Digital/agenda.html >

disbanded but previously charged with recommending and maintaining architectural guidelines for the UC shared digital collections.[6] Several interviewees referred to the recent report produced by the Bibliographic Services Task Force, suggesting a similar coordinated effort to examine the status of UC digital libraries is now required.

X. SUMMARY: RECOMMENDED ACTIONS FOR CDL

In its effort to better assess and respond to campus needs, interests, and capacity for digital information tools and service development, CDL should focus on improvements in communication, collaboration, and project management and planning. *The following is a summary of recommended actions:*

Collaboration: CDL-campus collaborative development processes should be better defined and managed, including a clear definition of partner roles and responsibilities. CDL should assist in creating new models of collaboration that encourage and support cross-campus collaborative development. CDL should continue its support of campuses pursuing grant funding or seed money for local projects.

Communication: CDL program managers should assume responsibility for communicating to campus colleagues development plans, project status, and infrastructure changes. CDL-to-campus communication should be more consistent, integrated, streamlined, and synthesized. CDL should articulate and widely distribute its long-term strategic and development plans.

Internal project planning and management: CDL should establish and support tools, processes and practices for project planning, evaluation, and resource allocation.

Systemwide digital library planning and development: CDL should propose to the University Librarians and SOPAG a full review of current systemwide planning mechanisms in an effort to assess whether they adequately address the expressed need for broader systemwide digital library planning. CDL should promote and participate in systemwide digital library planning activities, including the exploration and establishment of new models of communication and collaboration.

[6] Strategic Technology, Architecture, and Standards Working Group. < http://www.cdlib.org/inside/groups/stas/ >

XI. APPENDIX 1: CAMPUS INTERVIEWEES

UC Berkeley
April 20, 2006

Paul Atwood
Lynne Grigsby-Standfill
Bernie Hurley
Amy Kautzman
Norma Kobzina
Nick Robinson

UC Davis
April 13, 2006

Phoebe Ayers
Jared Campbell
Linda Kennedy
John Tanno
Gail Yokote

UC Irvine
April 03, 2006 (Teleconference)

Jackie Dooley
Jason Moore
Colby Riggs
Lorelei Tanji

UCLA
May 8, 2006

Stephen Davison
Lynn DeLacy
Curtis Fornadley
Gabriella Gray
Kris Kasianovitz
Angela Riggio
Terry Ryan

UC Merced
April 7, 2006 (**Teleconference**)

Donald A. Barclay
Bruce Miller

UC Riverside
June 20-21, 2006 (Teleconference)

Diane Bisom
Albert Morita
Dana Nguyen
Michael Yonezawa

UC San Diego
April 17-18, 2006

Luc Declerck
Megan Dreger
Gabriela Montoya
Brad Westbrook

UC San Francisco
April 4, 2006

Julia Kochi
Kirsten Neilsen
Gail Persily

UC Santa Barbara
June 13, 2006

Sherry DeDecker
Brad Eden
Salvador Guerena
Alex Hauschild
Gary Johnson
Mary Laarsgard
Janet Martorana
Annie Platoff
David Seubert
Lucia Snowhill

UC Santa Cruz
March 29, 2006

Christine Bunting
Christy Hightower
Ann Hubble
Lucia Orlando
Sue Chesley Perry

XII. APPENDIX 2: INTERVIEW QUESTIONS AND OBJECTIVES

1. What is your area of expertise / responsibility?

   Objective: Introductions; warm up exercise; build familiarity.

2. Describe current digitization / technical projects; how would you characterize the digital library development landscape on your campus? Do you have projects in the early planning stages or under consideration?

   Objective: Assess the current development landscape; gain insight into future projects.

3. What type of content do you have? What are its strengths? Problems? What format is it in? Do you have clear digital rights?

   Objective: Gain understanding of the scope of available content, its format, drm issues, etc.

4. How does your library typically decide which projects it will pursue / participate in / collaborate on? When do you decide to "go it alone" versus collaborate? What is your preferred distribution of work? Your preference for collaboration with CDL? Do you have any formal policy documents?

   Objective: Assess attitudes toward collaboration; understand expectations pertaining to roles, abilities, and project contributions. Identify strategic planning documents.

5. How does your (your department's / library's) work intersect with that of the CDL? Describe your experiences and interactions with the CDL and/or with CDL tools and services.

   Objective: Determine familiarity with CDL tools and services. Assess attitudes toward, and levels of satisfaction with, the CDL.

6. Given that we operate in a world of limited resources, what digital library tools and services should be considered priority developments? Which lend themselves to collaborative development? Have you considered purchasing vendor products, e.g., CONTENTdm?

   a. Metadata tools, *e.g.*, harvesting, analysis, enrichment, normalization
   b. Gathering tools, *e.g.*, metadata, objects, ingest, harvesting
   c. Customization / Collection-building, *e.g.*, "little-curation", "skin and slice", branding subsets, exhibit-building tools
   d. Discovery / Access, *e.g.*, search, metasearch, faceted browse, recommenders
   e. Authoring / Publishing, *e.g.*, digital publishing, end-user tools
   f. Preservation

   Objective: Determine organizational and individual needs and priorities. Understand decision-making process for choosing / not choosing digital library tools and services.

6. How difficult is it to prepare your content for deposit with the CDL? Is METS a barrier for your organization? Is anyone within your organization familiar with METS? Have you ever used a METS encoding tool? For what purposes? What type of METS tool would best integrate into your current workflow and technical environment? Is there a need for METS training?

   Objective: Assess capacity for METS creation.

7. For interviewees familiar with collection development issues / special collections / archives:

    a. Do you foresee a new collection development model unfolding as it relates to digitized / digital collections? New ways of assembling collections?
    b. What are your collection priorities now? Have your priorities changed over the past few years?
    c. What are the situations where a librarian might want to build a new type of digital collection? Can you provide an example? *Scenario: collaboration between a subject specialist librarian and academic teaching faculty.*
    d. Can you imagine building a collection that includes digitized and digital objects of various formats, harvested (free) web sites, databases, and licensed content? *Explore barriers, including organizational, technical, workflow, etc.*
    e. What technologies do you need to build these new collections?

    Objective: Assess awareness of emerging digital collection development models. Explore the movement *beyond* the digitization process and *toward* building new forms of digital collections.