

Appendix 1

Scope of work for consultant and charge to MLAC Evaluation Task Force

At the outset of the project the Bill DeJohn, Sam Demas, and Wendy Lougee identified the following key questions that Sam Demas, as consultant to the project, would explore in this planning study:

1. How can we make best use of the existing storage space in MLAC?
 - a. What data is needed to assess and address duplication? How can we get and analyze the needed data?
 - b. What are the best strategies for de-duplication? What are the costs and benefits of the most effective de-duplication strategies?
 - c. Potential for installation of compact shelving? Cost-benefit analysis of leading scenarios.
 - d. What policy changes would be needed to optimize existing space?
2. What are the current and future storage needs of the MLAC participating libraries: UMNTC and Greater Minnesota? Clearly there is need by UMNTC; is there any demand for additional storage space from participating Greater Minnesota libraries?
3. What policy and governance changes might be needed to best position MLAC to serve Minnesota libraries? How can we make MLAC a trusted archive for the state that will allow Minnesota libraries to make local collection management/retention decisions with assurance that MLAC holdings are a permanent resource for the state? Can UMNTC rely on MLAC deposits from Greater Minnesota libraries (e.g. Mayo Clinic) in making collection management decisions? How would this work? What are the attitudes of the members concerning a collective ownership model and other potential models for optimizing MLAC as a resource for the state and the region/nation?
4. What are the existing and emerging models for shared storage and shared collection management? What trends and models are of most potential significance to MLAC and its membership? What can we learn from WEST (Western Regional Storage Trust) and other emerging shared collections programs?
5. How can we best position MLAC to participate in the broader context of shared collection management?
6. What impact will Google Books, Hathi Trust, and other large-scale digital library initiatives have on MLAC and its role as a state-wide resource?

2. The MLAC Evaluation Task Force was formed to advise and assist Sam in this study. Its charge is:

Advise and assist project consultant in conducting an evaluation of MLAC and developing recommendations on how best to position MLAC to serve as a collectively

managed collection for the state and to participate in national and regional shared collection management schemes.

Specifically, the Task Force will focus on:

1. Describing what MLAC is, defining the collections and what it means to be an MLAC participating library. Defining the relationship between University of Minnesota Twin Cities and non-University of Minnesota Twin Cities collections and services.
2. Studying ways of making best use of existing space.
3. Developing and evaluating a set of strategic options for discussion by MLAC Advisory Board.
4. Recommending to the MLAC Advisory Board:
 - a. Methods of making the best use of existing space
 - i. Opportunities and cost-effectiveness analysis for de-duplication within MLAC collection and within larger framework of regional and national collection management.
 - ii. Cost-effectiveness of installing compact shelving
 - b. Strategic plan for MLAC for the next five years.
 - c. Adjustments in policy and governance that will enable MLAC to manage the collection to best serve the state and the nation, and to pursue its strategic plan.

Appendix 2

Agenda and notes from first Advisory Board meeting

NOTES

**Minnesota Library Access Center Advisory Board
18 Andersen Library Conference Room
Thursday, Oct. 21, 2010
10 a.m.-3 p.m.**

(These notes summarize the meeting's discussion. Additional information is available in the form of a PowerPoint presentation by Sam Demas)

Members Present:

Sam Demas	Brittney Goodman
Kit Hadley	J. Michael Homan
Robbie LaFleur	Wendy Pradt Lougee, Chair
Kathy Parker	Joan Roca
Betsy Williams	

Ex Officio Members:

Mary Lou Dresbach	Absent: Nancy Walton
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University of Minnesota - TC Staff

Peggy Johnson	Charles Spetland, absent
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Minitex Staff:

Bill DeJohn	Kathy Drozd
Tim McCluske	

Observers:

Sarah Anderson	Cecilia Boone
Kate Brownrigg	

1) *Introductions, Review and Acceptance of Agenda*

Lougee welcomed all those attending the session and noted that the group had important issues to discuss. Board members introduced themselves and shared information about their library's use of MLAC and other relevant topics.

Common themes emerged from these comments:

- Libraries are being pushed to repurpose space in their buildings. Space formerly allocated to collections and other library-related materials in academic libraries is now needed for student study space, new technology and media, casual meeting space, and other priorities. Public libraries are experiencing similar pressures on collection space.

- Because of these pressures and budget stringencies, several libraries are faced with the need for zero growth in collection size and space. Many are experiencing the need to identify additional collection storage space as well as facilities for other usages. Some are weeding their collections or withdrawing journal backfiles.
- A number of the Board members said they would like to send more material to MLAC if space were available.

2) Update and Overview Report on Minnesota Library Access Center (MLAC)

Lougee noted the original goals for MLAC: preservation of and access to important, but little used items owned by Minnesota libraries. The University Libraries have the responsibility for administration of MLAC and responsibility for operation of the facility is held by Minitex. MLAC has met its goals with MLAC staff and the Minitex Delivery System helping greatly in getting items to requesters.

She identified trends and initiatives that have changed the context since the MLAC Advisory Board last met in August 2008.

- Economic considerations make it very unlikely that a third MLAC cavern, which was part of the original MLAC plan, will be built in the foreseeable future.
- There has been a huge push for digitization of library materials. In particular, Google Books has digitized millions of volumes.
- There is increasing emphasis on providing permanent access to digital materials, with Portico, the HathiTrust, and other organizations increasingly active in this arena.
- There has been increasing national discussion of the value of a “collective collection” in which libraries across the country would think of and manage their collections as a shared asset. Such questions as what degree of redundancy is required and where items need to be located to meet library user needs have been posed in this discussion.

She noted that accreditation agencies no longer put as much emphasis on the size of a single library’s physical collections when assessing the library’s ability to meet its users’ needs.

In discussing the material that's currently stored in MLAC, DeJohn, Drozd, and McCluske talked about the policies, shelving, and space considerations that set the framework for maintenance and use of the collection. MLAC items are represented by bibliographic records in the University of Minnesota's MNCAT catalog. Problems, such as the large number of requests coming in from Hennepin County Library for the library's own material, were discussed. Board members said MLAC service has been very good.

3) Discussion & Answering questions in Demas' Report: "Enduring Access to University of Minnesota Libraries Collections: a preservation planning framework for a digital age."

Demas presented an overview of the report he prepared for the University of Minnesota Libraries, particularly as it relates to MLAC. His goal in the report was to give the Libraries a sense of direction, an outline of a 21st Century preservation program. While previous preservation programs across the country have tended to put more emphasis on in-depth preservation of relatively few items, newer initiatives would provide for less intensive work on a wider number of items.

4) Initiatives Underway on National Level related to Print Resources in Storage

- *CIC Initiatives - Wendy Lougee*

The CIC has played an active part in the Google Books project and formation of the Hathi Trust. The CIC libraries are also considering viewing their journal holdings as a collective collection..

- *Other National Initiatives & Trends Related to Storage Facilities - Sam Demas*

(See Demas' PowerPoint slides)

5) Discussion of how these Initiatives Relate to MLAC

Demas noted that the "Enduring Access. . ." report includes suggestions for MLAC's ongoing use, and he proposed consideration of positioning MLAC to be part of the national discussion of building the concept of a "collective collection." Among topics under consideration is a proposal that the nation's 68 library storage facilities would pass from being passive repositories that accept materials identified by depositing organizations to being more proactive repositories with collections built through planned collection development policies. Collections of repositories of library materials would provide maximum value when thought of as a collective collection and if information about their content were actively shared.

6) Lunch

7) MLAC Planning Study

- **How to make the best use of the existing storage space**

DeJohn and Lougee outlined plans for an MLAC Planning/Evaluation Group that will study issues, perform a survey of Minnesota libraries, and bring recommendations back to the Advisory Board for review and consideration. The proposed time table would have the Group's work completed and recommendations to the Advisory Board by March 1, 2011.

It was agreed that this Group will include: DeJohn, Demas, Drozd, Goodman, Homan, Johnson, McCluske, and Charles Spetland, University Libraries. The first meeting is scheduled for Nov. 1.

The Board discussed MLAC's current collection and governance policies, noting that, at this point, ownership of items deposited in MLAC remains with the depositing library. Duplication of materials from different depositing libraries, issues involved with trying to remove duplicates (particularly in relation to duplicative journal deposits), and the need for continue maintenance of and access to the collection were discussed.

- **How to position MLAC to participate in national shared collection management schemes**

The Board agreed that more detailed information about MLAC's current content is important for future planning.

Lougee summarized the discussion, noting topics that should be studied:

- Gain an understanding of the catalog of material that needs to be reviewed
- Analyze duplicates
- Examine the costs of removing duplicates
- Examine the costs of withdrawal of items from MLAC
- Examine the costs of compact storage
- Examine the costs of swing space to be used as the temporary home for materials if reorganization/re-shelving is needed
- Consider such policy issues as what it means to be an MLAC partner?
- What services should be offered by MLAC?

8) Discussion of additional information needed by the Consultant from the Advisory Board.

Demas said that he would study MLAC's current governing policy documents with the goal of identifying possible changes and topics for discussion.

He led Board members through a straw poll to gain information about their current thoughts on the issues. Answers to poll questions indicated that

- Board members think their collections either need more storage space now or will soon.

- Board members are open to considering changing the current policy that says the depositing library retains ownership of its materials and may withdraw them if needed by their institution.
 - Five Board members said they would prefer a “Persistence Requirement” policy that would have depositors agree to retain designated materials for mutually agreed extended periods.
 - Four Board members said they would prefer a “Shared Ownership” policy.

9) Future Meetings needed before March 1, 2011.

Board members agreed that up to three meetings may be needed before March 1. Members may plan to participate via conference phone.

10) Adjourn

Appendix 3

List of depositing libraries

Deposits in MLAC by Library

Library	Volumes Deposited	
U of M Twin Cities Library	817,400	
Hennepin County Library	172,984	
Mayo Clinic	113,527	
U of M Duluth	101,053	
James J Hill Reference Library	37,786	
St Paul Public Library	27,544	
Minnesota State University Moorhead	26,369	
Carleton College	23,107	
Minnesota State University Mankato	21,652	
St. John's University	19,005	
William Mitchell College of Law	7,175	
Legislative Reference Library	4,446	
State Law Library	3,755	
Bethel Seminary	2,889	
U of M Law Library	2,836	
St. Olaf College	2,635	
Fire/EMS/Safety Center Library	921	
Macalester College	620	
St. Scholastica, Duluth	423	
Rochester Technical College	133	
Pine Technical College	101	
TOTAL	1,386,361	
State institutions	978,666	71%
Public libraries	200,528	14%
Private institutions	207,167	15%
TOTAL	1,386,361	

Appendix 4

Compact Shelving Cost Estimate for MLAC Cavern

December 7, 2010, Updated Jan. 14, 2011

Prepared by Bernadette Corley Troge,
Kathy Drozd, Timothy McCluske

Item

1. Budget delivered and installed sell price including teardown and reinstallation of existing shelving.
2. Concrete work:
 - a. Repair existing slab
 - b. Install shelving rails
 - c. Install wire guide for stockpicker
 - d. Engineering design
3. Reworking of existing HVAC

Cost Estimate

system	
4. Lighting modifications	\$600,000 ²
5. Fire protection modification, if required.	\$75,000
6. Cost of retrofitting stockpickers	\$75,600 (\$150 per sprinkler head)
SUBTOTAL:	\$6,000
7. University project management cost (10% of items 1-6)	\$2,916,284
CONSTRUCTION COST:	\$291,628 \$3,207,912

¹ Based on quote from December, 2010

² Based on inflation adjusted cost of last HVAC upgrade

Removal/replacement and temporary storage of existing stored material

1. Storage removal fee	
2. Estimated cost of moving collections out of and back into MLAC	\$393,600
3. 5.5 months storage cost at \$169,000/month	\$700,000
4. 5.5 months paging fee at \$8,000/month	\$929,500
STORAGE COST:	\$44,000
	\$2,067,100

Combined Cost

Construction:	\$3,207,912
Storage:	\$2,067,100
10% Contingency:	\$527,501*
TOTAL:	

\$5,802,513 *Contingency funds to

offset unknown

expenses such as:

- Re-accessioning trays that need to be relocated.
- Limitations on staffing multiple crews in compact shelving.
- Cost overruns.
- Unforeseen circumstances.

MLAC Cavern Totals & Averages

January, 2011

Prepared by Bernadette Corley Troge, Kathy Drozd, Tim McCluske

Combined UofM TC and non-UofM TC Collections			
Total Volumes in MLAC:	1,402,157		
Current shelf usage:		87.8%	
Serials:	615,334	44%	
Monographs:	790,483	56%	
Average number of serials per shelving division:	2,200		
Average number of monographs per shelving division:	3,750		
Combined average per shelving division:	3,080		Adjusted to reflect % of serials and % of monographs
Estimated Capacity of Existing MLAC cavern:	1,570,000		(98% of maximum capacity)

University of Minnesota, Twin Cities Campus Deposit in MLAC

TOTAL ITEMS ACCESSIONED FROM T.C. Campus:	831,696	
Current shelf usage:	83.3%	
Estimated unused capacity:	166,320 volumes	Note: Assumes SuDoc collection removed from MLAC

Non-University of Minnesota, Twin Cities Deposits in MLAC

TOTAL ITEMS ACCESSIONED FROM non-UTC Libraries	570,461	
Current shelf usage:	94.4%	
Estimated unused capacity:	36,960 volumes	

Installation of Mobile Shelving in Existing Cavern

Estimated Cost :	\$5,802,513	Includes moving collection, shelving, construction
Estimated capacity of added shelving:	548,800	35% increase
Cost of mobile shelving per volume:	\$10.57	
Annual cost per volume in open stacks:	\$4.26	
Annual cost per volume in high density shelving:	\$0.86	
Years for return on construction cost: ³	3.1	years

Source: P. Courant and M.
Nielson (CLIR, 2010)

³ Years for return on construction cost is included as a measure of cost-benefit. It is derived by dividing the cost per volume by the difference between the annual cost of open stacks and high density shelving.

Construction of New Cavern with Mobile Shelving

Estimated

Construction Cost: \$11,000,000

Estimated Shelving
Cost: \$3,000,000

Total Cost: \$14,000,000

Estimated Added
Capacity: 2,100,000

Cost per volume: \$6.67

Annual cost per
volume in open stacks: \$4.26

Annual cost per
volume in high
density shelving: \$0.86

Years for return on
construction cost:⁴ 1.96 years

Source: P. Courant and
M. Nielson (CLIR, 2010)

Construction of New Cavern with Mobile Shelving Followed by Retrofit of Existing MLAC Cavern with Mobile Shelving

Estimated Construction Cost: \$11,000,000

Estimated Shelving Cost: \$3,000,000
Total Cost of new cavern: \$14,000,000

Estimated cost retrofit mobile shelving in existing MLAC cavern : \$3,030,000

Total cost for both: \$17,030,000

Estimated Added Capacity: 2,648,800

Cost per volume: \$6.43

Annual cost per volume in open stacks: \$4.26

Annual cost per volume in high density shelving: \$0.86

Years for return on construction cost:⁴ 1.89 years

Source: P. Courant and M. Nielson (CLIR, 2010)

Storing current MLAC deposits is 40% of the cost to retrofit the existing cavern with compact shelving. Other options exist for storing material but are difficult to cost out. A few of these options are:

- Undertake the removal, storage, and return of the materials internally instead of using a commercial vendor. This would require securing space with suitable environmental controls to store the materials, determining how the materials would be stored (shelves, boxes, or some other way), and arranging the moves.
- Split the installation of compact shelving into two phases, east and west. Roughly half of the material stored in MLAC would still need to be moved off-site and the timeline for construction would double.
- Split the storage between a commercial vendor and University managed.

Appendix 5

MLAC's policy and governance: analysis and recommendations

The MLAC *Packet for Depositing Libraries* (December 2002), available on the project wiki site, is a compilation of formal documentation on MLAC policies and procedures. Included are two key policy documents, *Operating Principles and Guidelines* and the *Memorandum of Agreement* signed by each depositing library. Analyzing these two policy documents using the review template developed by the RLG Partnership Shared Print Collections Working Group provides a good sense of the strengths and weaknesses of MLAC's existing policy and governance documentation and practices.

In general, the existing MLAC policy and governance framework has served the depositors and those who rely on MLAC well over the past decade, but is not designed to support a collection conceived and managed as a shared print archive in the sense that is cohering today. With some fairly minor modifications MLAC will be better positioned to serve the state and to participate as a node in a national shared print archiving program. A true shared collection will require more formal policy development and monitoring mechanisms, more clarity about collection management, and more precision in articulation of governance and administration of the collection. A more detailed delineation of the "terms of engagement" or "rights and responsibilities" of depositors and other users of MLAC is essential.

I recommend that the following policy and governance topics be discussed and decided by the MLAC Advisory Board over a series of meetings this spring. Following this, the existing policy and governance documents, including the Memorandum of Agreement with depositing libraries, should be re-written to reflect and support the updated purposes and strategic directions of MLAC.

1. Formal Policy Statement

The existing "Operating Principles and Guidelines" combines both procedural guidelines and principles, but does not purport to set forth formal policies. I recommend developing a formal policy document based on the current "Operating Principles..." and recommendations from the MLAC Advisory Board.

2. Vision and Mission

The current vision statement is no longer visionary; it has been achieved:

"As a shared depository for infrequently used library materials of importance to the people of Minnesota, the Minnesota Library Access Center will provide a climate controlled environment and make the deposited items accessible for use."

A more aspirational vision that points MLAC in the direction of active participation in shaping a shared national collection seems more appropriate for this epoch in MLAC's history.

There is currently no MLAC mission statement. The primary value in shaping one, which I believe would be worthwhile, is to encapsulate and communicate a common sense of purpose for MLAC.

3. Governance framework and memorandum of agreement

The current statement of governance (section 1.4 of "Operating Principles and Guidelines") does not adequately address a number of key issues, including:

- a. A more detailed charge for the MLAC Advisory Board. It is currently charged with "developing guidelines and providing the vision for MLAC". Who establishes policies for MLAC and who is authorized to make exceptions?
- b. Who appoints the members of MLAC Advisory Board, on what basis, and for what terms of office? Should the Board include higher level fiscal or policy representatives of depositing institutions, rather than only librarians?
- c. Does the MLAC Advisory Board operate on consensus, by majority vote?
- d. How frequently should MLAC Advisory Board meet? Currently meetings are irregular and infrequent.
- e. What role, if any, does the MLAC Advisory Board have in advising, developing policies and managing the collections of the 60% of MLAC occupied by UMTC?
- f. An updated Memorandum of Agreement between MLAC and depositing libraries is needed.

4. Ownership/explicit retention commitment

Currently MLAC policy is that depositing libraries retain ownership of their deposits (see section 2.7 of Operating Guidelines...), but "it is expected that deposited materials are intended for permanent storage". However, section 2.12 "Permanent Return to Depositing Library" states that "If needs change, staff of a depositing institutions may request that an item be removed from MLAC and returned by submitting a written request to the MLAC manager on their library's stationary." This happens very rarely, but it places a great deal of responsibility on the MLAC manager and, more significantly, makes it impossible for the MLAC collection to serve as a truly shared collection against which libraries can safely withdraw local holdings with assurance that these will be accessible via MLAC. The straw poll at the October 2010 meeting of the Advisory Board indicated that very few of those present are willing to donate ownership of their deposited material to a trusted third-party shared collection, but that nearly all were willing to make a retention commitment of 25 years. To operate as an effective shared collection such commitments would need to be legally binding.

I recommend MLAC adopt a policy of joint ownership and management of shared collection through a state entity, but recognize that the depositing libraries may not be prepared for this model at this time.

5. Policy on duplication

MLAC, along with most other storage facilities, has wrestled with the problem of duplicates since before its inception. Libraries in a hurry to deposit materials in MLAC did not have the time to check for duplication. In the early days of MLAC the MLAC Advisory Board did not have the political will to insist on a “no duplicates” policy. The time has come to remedy this.

The original 2000 MLAC “Operating Principles...” addressed duplication in two sections:

2.1 “...Duplicates of the same title or edition may be retained at the discretion of the MLAC staff.”

2.4 Duplicates: “Duplicates of the same title may be accepted (up to two copies) at the discretion of MLAC staff. It shall be the responsibility of staffs of depositing libraries to check for possible duplication between materials they plan to transfer to MLAC and material already stored in MLAC; depositing library staff shall alert MLAC to apparent duplicates.”

This policy was revised in 2002, (and continues today) as follows:

2.1 no change

2.5 Duplicates: “Duplicates of the same title or same edition may be accepted at the discretion of MLAC staff. However, MLAC staff reserve the right to de-accession duplicate titles with approval of the depositing library.”

This revision was an attempt to find a compromise between the fact that depositing libraries didn't check for possible duplication and the wish of MLAC staff to avoid filling valuable space with un-needed duplicates. This policy proved difficult to implement, and current practice is to accept anything, but only accession unique materials. MLAC staff has set aside not accessioned into MLAC 25,000 duplicate journal runs sent by depositing libraries, which they are in the process of recycling (with approval of the depositing library, which is given the rarely exercised option of having the materials returned to it) at this time. This discard process does not currently include identifying copies in best condition or verification of the copy in MLAC and filling in missing material from the set to be discarded.

I strongly recommend adoption of a “no duplication” policy for both journals and monographs. Most storage facilities are in the same policy bind as MLAC and there is now a move to retroactively declare “no duplication” policies.

6. Shared copy/last copy policy and program

Once we have binding ownership/retention and “non-duplication” policies in place, we could begin to manage the MLAC collection more effectively in the collective interest. This would entail development of policies and guidelines for overall management of a formal “last copy” or “shared copy” program that would be at the heart of MLAC’s service to the state as a shared archiving facility. These would include selection (best copy?), level of verification required (e.g. volume, issue, or page), handling and marking, access policies for last copies, and withdrawal (temporary and permanent) from the shared collection. It is especially important to have a policy on disposition of un-needed materials to protect us from inevitable accusations of “book-burning” when thousands of withdrawals show up in recycling bins. There are many existing programs nationally we could build upon, and I believe it would not be very difficult at this point in MLAC’s history to develop the policy framework for such a program.

7. Cataloging

In the early days of operation MLAC had specific cataloging guidelines that depositing libraries were required to meet for deposits. With the implementation of Aleph it MLAC lost the ability to import records and MLAC staff has taken responsibility for copy cataloging and ensuring that records are adequate. We should revisit this workflow and determine if there is a need for MLAC cataloging guidelines. In particular, we should ensure that we are adhering to national best practices for effective disclosure of holdings and preservation/archiving commitments on stored materials, and for item-level condition information. Inconsistency in recording of local holdings records is a particularly difficult problem for storage facilities to address. Further, MLAC should secure its own OCLC symbol to facilitate our own collection management and to expose MLAC holdings more effectively nationally.

These policy and practice recommendations will be advanced through UMTC’s participation in the OCLC pilot project on Recording/Disclosing Print Archive Holdings in WorldCat. However this pilot project will not involve MLAC records. This project will inform the rollout of an OCLC product in 2012 that will implement recommendations of OCLC Research concerning the use of the 583 field to better support print archiving programs nationally. Lessons learned from this pilot and subsequent product development should be incorporated into MLAC policy and operations.

As e-book and e-journal archiving programs expand and mature, we hope there will be methods of including information about e-access and e-archiving in the bibliographic records for print holdings of MLAC materials.

8. Escape and exception clauses

If we have a more formal and binding set of policies as recommended above, we would need to address how to handle requests for exceptions (some could be made by MLAC staff, others by the Advisory Board), and instances where an institution wishes to withdraw from its commitments to MLAC.

9. Service level agreement

With a strong service program built on the MINITEX delivery and resource sharing infrastructure, our service level agreement is largely in place and very effective. However several service issues should be clarified:

- a. Circulation policy - As a general rule MLAC monographs circulate through resource sharing or the UMTC, and periodicals generally do not circulate (article delivery through interlibrary loan), except that UMTC periodicals do circulate for a week. However, as stated in section 3.3.5 of the "Operating Principles.....", Reference material and other selected materials: "circulation is defined by depositing library." In effect the depositing library can decide not to allow its monographs to circulate (except back to the depositing library). Under this provision, deposits from James J. Hill Library and Mayo Clinic are non-circulating. This is not currently a major issue, but it complicates day-to-day operations management and would not be consistent with the idea of a truly shared collection. One of many possible solutions is to designate two or three categories of circulation e.g. six weeks (default for monographs), for use in Elmer Andersen Library only (default for journals), and non-circulating (for rare, fragile, or other protected materials). Each depositing libraries selects one of these three designations in cases where the default is not appropriate.
- b. Currently, circulating items in MLAC are available for UMTC reserve use, however if requested by the owning library the item must be returned to MLAC. We should review this policy and discuss whether to extend availability for reserve use to all depositing libraries, or whether long-term archiving needs should trump high-use reserve reading needs, of whether reserve needs can be met through digitization.

10. Business model

The business model on which MLAC operates is not mentioned in the current policies, except for the statement (in ii3.d of "Operating Principles...") that "...no fees will be assessed for collection storage." A clear statement of how MLAC is funded and the rights and responsibilities of depositors is needed.

Appendix 6

Duplication, de-duping, and withdrawals

Best estimates are that there is a 14% duplication rate, constituting 127,000 duplicate periodical volumes and 75,000 duplicate monograph volumes. More work needs to be done to verify these estimates, but they clearly indicate that there is scope for significant collection management to make room for additional unique materials and position MLAC to play a role as a shared print management hub.

While there are arguments for retaining duplicate copies of little used materials in a collection⁴, the logic of eliminating unnecessary duplication is powerful. This is true within both within a particular collection, and, at national scale, in examining the overlap among collections. One important caveat is that not every title should be de-duplicated; we must be sensitive to instances when a title is rare or of special institutional or cultural significance.

A major consideration in making best use of space in MLAC is determining the extent of duplication and feasibility of de-duplication. As part of this planning study the MLAC Evaluation Task Force hatched a sub group to study the level of duplication that exists and the costs and benefits of de-duping.

It is difficult to determine exactly how much duplication exists in the MLAC collection, but we have two data points so far from which to derive an estimate:

1. Connie Hendrick ran a report on Aleph that shows that there are 64,037 holdings records that are exactly the same. Of these 64,037 duplicate items, 51,486 are duplicate monographs and 1,676 are duplicate serial titles. Most of these involve two copies of the same item (I estimate 51,995 titles with 2 copies), but there were 8,500 instances of 3 copies, 1,486 instances of 4 copies, and 380 instances of 5 copies.

From these data we can estimate that there might be about **74,973 duplicate monographs**.

2. The data for serial duplication is less clear-cut. A search of Aleph reveals there are 33,402 serial titles in MLAC of which 15,718 are periodicals. Two samples were conducted to estimate the quantity of duplicates in MLAC. The first sample was of 25 randomly selected titles from a database MLAC maintains. The second sample was another 25 randomly selected titles of 50 volumes or more from an Aleph generated report.

⁴ See Buckland, Michael "Little Used Duplicates, Cooperative Collection Development, and Storage" in *Collection Management* 13(4) 1990, p. 44-49.

By averaging the results of the two samples, it was found that 28% of the titles had duplicate holdings and 20.6% of the volumes were duplicates. **Based on a total serial volume count in MLAC of 615,000 volumes, there are an estimated 127,000 duplicate periodical volumes by this method of reckoning.**

The goal in de-duping the collection is to free space for adding unique items to MLAC. Staff estimates that for every periodical volume discarded, one periodical volume or 2.3 monographs can be added. Estimating the space gained by withdrawing monographs is more problematic since the reverse ratio of withdrawing 2.3 monographs is more time-consuming to enact.

To help get a sense of the costs of withdrawing journal runs from MLAC, Tim McCluske conducted a trial to determine the steps and time involved in withdrawing duplicate journal runs for six titles. See Appendix 7 for a detailed breakdown, but the bottom line is that on average it took 47 seconds per volume. Tim's study also demonstrated, as one would expect, that it takes significantly less time to withdraw volumes of titles with long runs than with short runs, due to the fact that they are clustered together both physically and in a small number of bibliographic records.

In her email transmitting the results of the report she ran in Aleph, Connie Hendrick outlines the vulnerabilities of the method she used:

1. Variations in description. A programmer would need to write a script to regularize the description to secure a more precise count.
2. Multi-volume sets transferred with no item description. Fixing this problem would be very labor intensive.
3. Multi-volumes transferred from UMTC where we converted holdings to ZMLAC, but some items were never received. This is one of the biggest headaches for MLAC staff.
4. Multi-volumes where description is not adequately granular to determine the exact number of volumes.
5. Instances where you have duplicate items, but the items are attached to different bib records.

Tim and Connie's analysis and evaluation and analysis are exactly the sort of work that needs to be repeated and refined until staff can come to a conclusion about what is worth trying to fix (in the records) and what is not, and, more importantly, the estimated level of duplication in MLAC. A solid estimate is more likely to be derived from comparing a number of different approaches and finding a reasonable range than by figuring out one perfect method of calculating the level of duplication. I believe a concerted joint MINITEX/UMTC project effort over a period of several weeks would get us the point of being able to identify a fairly solid estimate of duplication.

Nevertheless, **if the estimates of 127,000 duplicate periodicals and 75,000 duplicate monographs are close to correct, this means there is an approximately 14% duplication rate in MLAC. The duplication rate in periodicals is 21% and in monographs it is 9%. With this level of potential duplication it definitely seems worthwhile conducting further analysis of the extent of duplication and the cost/benefit of de-duping.** However, we need further study to determine as with as much confidence as possible our best estimate of the extent of duplication. This will determine the benefit: i.e. the potential space gain in de-duplication. Whether a de-duplication program is worthwhile depends on the other side of the cost/benefit equation: the cost of de-duplication.

Nationally, the common wisdom is that the cost of de-duplication is not worth the space gained. I was only able to locate three repositories that are actively conducting de-duping projects. All are working on serials only: Purdue University⁵, John Hopkins University, and OhioLINK (Dona Straley has completed the de-duplication of one storage facility and hopes to extend the methodology to the other four storage facilities to get down to two copies of an item among the five). None of these projects has published any cost analysis of their efforts, but they are proceeding with de-duping as they have run out of storage space.

ReCAP (joint storage facility for Princeton, NYPL and Columbia) did a very small pilot project (three large serial titles) analysis of de-duping, but did not produce any cost analysis. However, they identified the key obstacles to de-duping and concluded that it would take two to three years employing four FTE to free up an estimated 75,000-125,000 volumes.⁶ Washington Research Library Council, CAVAL (Australia), and the UC System (with two storage facilities) each conducted very informal analyses and determined that de-duping wasn't worth the effort (like ReCAP the first two had good prospects of adding modules to their facilities).

However, as more storage facilities reach capacity and universities are unwilling to fund new space for print storage, we appear to be on the cusp of conducting some rigorous cost analysis of withdrawing materials, de-duping, and re-filling the space gained. Such studies will need to be one across several different types of storage facilities, as costs can vary considerably depending on the type of shelving, catalog records, and other factors. MLAC is in a very good position to collaborate on such a cost analysis, which will not only inform its own work, but also contribute to the national understanding the cost managing the collections in our 80 storage facilities.

⁵ See two project documents from OhioLINK and an article on Purdue's work on project wiki site: Warda, Suzanne M. and Mary C. Aargarda, "The Dark Side of Collection Management: Deselecting Serials from a Research Library's Storage Facility Using WorldCat Collection Analysis."

⁶ Personal communication from Eileen Henthorne.

Factors that make de-duping daunting and/or potentially expensive include:

1. Highly variable bibliographic records that make it hard to identify duplicates;
2. Dispersed catalogs (vs. all holdings in one catalog) in some facilities (not MLAC);
3. Holdings of serial run can be scattered throughout the facility, making it necessary to partially empty (and then refill) many different trays for one title. This is apparently not as true for MLAC as in ReCAP, for example.
4. The labor involved in verification to determine which set or volume is most complete and in best condition.
5. Labor and decision-making involved in determining if there is reliable digital access against which decisions can be made.
6. Labor in adjusting records in OCLC and the catalog of the depositing library.
7. The labor involved in re-filling trays (or parts thereof) emptied by de-duping.
8. Lack of experience nationally and consequently of best practices to follow.
9. Lack of rigorous cost data is a chicken-egg deterrent in approaching de-duping. ReCAP charges 5 activity units to withdraw materials, and 1 activity unit to add materials.
10. Lack of a national system for announcing who had archived what.
11. Lack of a central entity to manage and economic model to fund coordination of work of the nation's storage facilities in managing their collections collectively. What are the incentives for archiving institutions?
12. De-duping of monographs is presumably much less cost effective.
13. In the MLAC context, when we free up space by withdrawing materials, how do we manage the 60/40 split? This is hardly insoluble, but rather a somewhat nettlesome distraction that could introduce some cumbersome operational patterns.

Tim McCluske, working with the subgroup comprised of himself, Charles Spetland, and Cecilia Genereux (and with help from Connie Hendrick, and Betsey in the Library Enterprise group) on a cost benefit analysis of de-duping. They are working up a promising methodology for a pilot de-duping project that could give us a clear sense of the costs. Tim has compiled a database of non-UMTC MLAC periodical titles that facilitates identifying duplicate holdings. **It is important to understand how this database can be helpful in managing MLAC collection, and what it would take to finish the work of database compilation.**

The benefits can be calculated in a number of ways based on the value of the space freed up:

1. value of the space gained in the storage facility,
2. value of the space freed up in library facilities as they move volumes to storage space formerly occupied by duplicates; extends the useful life of campus library facilities,

3. value of space in library facilities that can be repurposed as volumes are moved to MLAC,
3. cost avoidance of rental or lease cost for storage of volumes in #2,
4. cost avoidance of building new storage space in MLAC or in libraries,
5. cost avoidance of annual cost of storing volumes in libraries vs. in storage.

There is a crying need nationally for data on the costs and benefits of managing storage facilities, and MLAC is extremely well positioned to provide leadership in filling this information gap. Grant funding should be available for this purpose and I recommend moving quickly to assemble a project team and submit a proposal in partnership with CIC and other university storage facilities.

Appendix 7 Estimate of time to withdraw journal volumes

Title Sample: Discard Volume Totals

February, 2011

Title	Total vol. in MLAC:	Total MLAC discard:	Discards % of total	Total vol. on campus:	Online Access
The Journal of educational sociology : a magazine of theory and practice.	68	32	47.1%	38	JSTOR Arts and Sciences 1: 1927-1963
Advances in cyclic nucleotide and protein phosphorylation research.	8	4	50.0%	8	No electronic access
Russian review.	91	33	36.3%	13	EBSCOhost Academic Search Premier: 1990-current with 1 year embargo; EBSCO Megafire: 1990-current with 1 year embargo; JSTOR Arts and Sciences 2: 1941-2004; Wiley Online Library: 1998-current
Proceedings in print.	49	15	30.6%	0	None
Collected papers of the Mayo Clinic	18	9	50.0%	0	No electronic access
Brookings papers on economic activity. Microeconomics	17	7	41.2%	10	JSTOR Arts & Sciences 2: 1989-1998; JSTOR Business Collection: 1989-1998

Title Sample: Time Study per Title

Title	Time: Volume & Tray listing	Time: Pulling Discards	Time: Withdrawi ng Discards	Time: Updating Holdings for shared set	Time: Selecting Vols to refill Trays	Time: Refill Trays	Comments
The Journal of educational sociology : a magazine of theory and practice.	6	8	5	9	n/a	n/a	Chose to discard UMD based on vol formatting & possible content
Advances in cyclic nucleotide and protein phosphorylation research.	3	5	1	2	n/a	n/a	chose to discard UMD because its on a separate bib record
Russian review.	8	6	4	4	n/a	n/a	did not update UTC item records
Proceedings in print.	4	6	2	2	n/a	n/a	did not update UTC item records
Collected papers of the Mayo Clinic	2	5	6	3	n/a	n/a	Chose to discard UMD based on vol formatting // additional volumes found on separate records
Brookings papers on economic activity. Microeconomics	3	3	2	1	n/a	n/a	Chose least complete sets
Total Time in Minutes	26	33	20	21	n/a	n/a	0

Title Sample: Time per Volume

Title	TOTAL TIME (in minutes)	Total Volumes Pulled	Vol Count from Lists	Time per Volume (in Seconds)	Comments on Volume Counts
The Journal of educational sociology : a magazine of theory and practice.	28 min.	32	32	53 sec.	At first volumes pulled was higher than volumes listed because too many volumes were pulled.
Advances in cyclic nucleotide and protein phosphorylation research.	11 min.	6	5	110 sec.	Total volumes pulled is correct. V.17A not charted
Russian review.	22 min.	45	53	29 sec.	Total volumes pulled is correct. Early vols have two vols bound together
Proceedings in print.	14 min.	24	15	35 sec.	Total volumes pulled is correct. Separate index for some volumes
Collected papers of the Mayo Clinic	16 min.	13	9	74 sec.	Total volumes pulled is correct. Earlier years on different Bib record (Title Change?)
Brookings papers on economic activity. Microeconomics	9 min.	7	7	77 sec.	Vols pulled corrected, two volumes from different series pulled by mistake
TOTAL / AVERAGE	100 min.	127	121	47 sec.	

Notes on sample

- Time: Volume & Tray listing – This amounted to scrolling through the item records and recording each different tray encountered. Volume numbers were not included, just unique trays.
- Time: Pulling Discards & Tray – One title was done at a time, the time it took to pull the trays began when the staff member left the workroom and ended when they returned.
- Time: Withdrawing Discards – For this sample it included assigning each volume an “in process” item status and verifying the correct volumes were pulled. Additional steps are necessary to completely discard items.
- Time: Updating Holdings for shared set – For this sample it included updating item volume information in the item records and updating coding in the holding record. Volumes were not consolidated onto a shared record nor were the holdings summaries updated. Also, UTC item records were not updated.
- Time: Selecting Vols to refill Trays & Time: Refill Trays – The original intent to refill trays was set aside. Instead, empty trays will be stored until needed and partial trays consolidated. This change enables consolidated trays to be reaccessioned and relabeled. The alternative is to remove the existing tray labels which is time consuming.
- The six titles chosen initially accounted for 121 volumes. The final volume count is slightly higher because:
 - The title, “Russian review” had some volumes bound together. This was not reflected on the Gantt chart.
 - Two titles had volumes not reflected on the Gantt chart.
 - The title, “Collected papers of the Mayo Clinic” had a preceding title that was added to the sample as volumes were pulled.

- Time: Re-accession – Since this mimics accessioning new deposits it was conducted but not included in the total times per title or volume. It includes scanning the tray and item barcodes onto a spreadsheet and adding a tray label to each volume.

Comments on results

- There is a strong correlation between the number of items withdrawn and the time it takes per volume. Sets with greater numbers of volumes to discard take significantly less time per volume than sets with few volumes. That is in part because volumes are clustered together and in part because of the time necessary to update higher level records is not dependant on the number of volumes.
- The sample revealed limitations of Gantt charts, at least the way used here. It is difficult to account for varying volume formats or the odd extra volume.

Appendix 8

Security, environmental controls, and emergency preparedness; Cataloging and Staffing

While these topics are outside the scope of this report, it is worth noting that there are no obvious deficiencies in these areas. MLAC is included in the “Building Emergency Procedures” and “Collection Disaster Response” plans for Andersen Library. I have one concern to pass along: the emergency generator is designed to run the HVAC and other critical systems for 20 hours, *which is not a very long time if there should be an extended period of electrical interruption over the next century or more*. Mold blooms in MLAC would be a disaster from which recovery would be extremely difficult to impossible. Tim has registered a safety concern that should be included in emergency response training and communicated to fire officials: in case of a triggering of the fire suppression system, books will become so waterlogged that they will swell and burst from their trays, falling on anyone walking below the shelves.

Services

With its link to MINITEX, MLAC has a very strong retrieval and delivery capacity. Similarly the articulation with the UMTC’s strong campus delivery network provides very good service to UMTC patrons. Access to materials is primarily via delivery through MINITEX interlibrary loan (for non-UMTC requests, 23% of total use), via campus delivery for UMTC requests (37% of total use), and via direct request from Minneapolis Public Library (MPL) and Hennepin County Library (HCO), (38% of total use⁷). In FY 2010 MLAC staff processed 26,553 requests. Circulation of materials from MLAC is currently at 1.94% of items circulating per year, well within the 1% - 3% range found nationally, but a 33% increase over the past five years due to the high level of circulation of MPL/HCL mentioned above.

A survey was conducted to determine if there are other services MLAC might provide in response to the needs of depositing and other libraries. The results are reported below.

Cataloging

All items accessioned into MLAC are cataloged and available through MnCAT, the UMTC Aleph online catalog. This is a great strength in comparison with many shared

⁷ This unusually high demand for items from its own collections is apparently due to the fact that MPL deposits were made discoverable to a broader audience as part of the merger of automation systems with HCO. This issue is currently being addressed jointly by MLAC staff and staff from the two public library systems, and is not part of this planning study.

storage facilities, which depend for access on clunky inventory management systems and on holdings records available only in the catalogs of contributing libraries.

Because depositing libraries retain ownership of materials, we have separate holdings records for each library. If a retention agreement is deemed to supersede this necessity, we could theoretically collapse all holdings into a single record. It only makes sense to do this if and when we de-dupe a title.

There is a need to align MLAC cataloging practices with those of UMTC; apparently progress is being made on this front.

Tim and Cecilia are discussing a plan to address the challenges of normalizing about 11,000 serial records by aligning/updating the codes and fixed fields.

These issues are typical of most repositories and it will never be cost-effective to rectify all the discrepancies in catalog records. Our best hope nationally is to get the records as close as accurate as we can in order to support collection management.

UMTC is already engaged in piloting (for the UMTC's new dark archives location) an important OCLC service to implement recommendations of OCLC Research Services concerning disclosure of archival commitments and otherwise supporting print archiving models. This initiative, if implemented nationally, has the potential to establish MLAC as an OCLC location with its own unique symbol, which will make it possible to more easily analyze MLAC's holdings against those of other libraries and repositories.

Staffing

There are 2.3 FTE regular staff (servicing a collection of 1,402,157 volumes) plus 45 hours per week of students working directly in MLAC; additionally, Kathy Drozd provides administrative oversight among many other duties in her portfolio. The staff are motivated and well trained, and operations are smooth. Tim McCluske has been with the library system for over 30 years and managing MLAC operations since the facility opened. He is a font of knowledge about MLAC and models a terrific service ethic. When he decides to retire there will be a significant loss of institutional memory about MLAC.

The staff-to-volume ratio in storage facilities is much lower than in open stack libraries, and the number of staff generally corresponds to the size of the collection. Bernie Reilly reports a range of staffing of 1.5 FTE (CONStor, operated by the Five Colleges of Ohio, with holdings of 3,730,000 volumes) to 38.2 FTE (Southern Regional Library Facility of the University of California system, with 17,500,000 volumes) among eight repositories

he studied.⁸ These data are not very helpful in comparing MLAC due to the difference in size and type of operations. Lizanne Payne⁹ uses a rule of thumb of 2 - 4 FTE per million volumes stored. By either measure staffing costs seem well within (or below!) norms, and overall operational costs are clearly very low.

⁸ Reilly, Bernard "Developing Print Repositories: models for shared preservation and access", CLIR, 2003, p. 44.

⁹ Personal communication, December 2010.

Appendix 9

Results of a Survey on Collection Management Needs and Attitudes

The responses to the survey of Minnesota libraries are summarized below. Forty-eight libraries (26 academic and 22 public) completed the survey. Minitex has the full data set in its Survey Monkey account. The survey was sent to all four year and university-level academic libraries, and to all large public libraries and public library systems. The response rates are available from Minitex.

The following survey questions were borrowed, with permission of Roger Schonfeld, from the *Ithaca S+R Library Survey 2010: Insights from U.S. Academic Library Directors*: 5, 6, 7, 8, 9, 10, 13, 14, 15. In the body of this MLAC planning report dealing with the survey (p. 35) a few comparisons are made between the results on the questions common to both the Minnesota and Ithaca surveys. However, the data sets from the Ithaca survey have not been compared and the few comparisons possible were drawn from reading the April 2011 Ithaca report by Matthew P. Long and Roger Schonfeld.

Space situation:

1. On a ten year space-planning horizon for both collections and library user activities, which of the following best describes the situation in your library?:
 - a. 54% will need more space for both collections and users.
 - b. 21% will need more space for collections but not for users.
 - c. 7% will need more space for users but not for collections.
 - d. **Comparison:** more *public libraries* (66% vs. 50%) reported need for both collection and user space, and more (12.5% vs. 7.7%) reported need for space for users but not collections.

2. In terms of space for growth of your print collections, which of the following best describes the space situation in your library:
 - a. 43% are out of space or nearly so
 - b. 29% have space for up to five years
 - c. 18% have space for 10 or more years
 - d. **Comparison:** more public libraries (66% v. 43%) are out of space or nearly so, and slightly fewer (26% vs. 29%) have space for up to five years. 26% of public libraries (vs. 11% of academics) report being in a zero-growth mode, i.e. for each volume added one is de-accessioned or stored).

3. Which of the following best describes the situation at your library (re weeding):
 - a. 79% have been weeding for some time and will continue to do so
 - b. 18% are planning to weed over the next few years

- c. **Comparison:** 91% of public libraries report that they have been weeding for some time and will continue to do so, and 9% report that they are planning to weed over the next few years.
4. If you are weeding or plan to do so, what types of materials are you targeting? (Choose as many as apply):
- a. 89% report weeding both books and journals
 - b. 30% newspapers
 - c. 78% reference materials
 - d. **Comparison:** Public libraries report larger percentages in nearly every category.

Attitudes towards collection management:

5. My decisions about managing my library's print journal collections are not influenced by the decisions that other libraries make:
- a. 50% of academic libraries state that their decisions are not influenced by what others are doing
 - b. **Comparison:** 61% of public libraries state that their decisions are not influenced by what others are doing.
6. I prefer to de-accession print materials with knowledge that there will reliably be print copies in my region.
- a. 73% report that they do prefer to de-accession print materials knowing that there will be copies in the region.
7. I can responsibly de-accession copies of all the JSTOR-digitized journals.
- a. 68% agree with this statement
8. Assuming that electronic collections of journals are proven to work well and are readily accessible, I would be happy to see hard copy collections discarded and replaced by electronic collections.
- a. 77% agree with this statement
 - b. **Comparison:** 60% of public libraries agree
9. Within the next five years, the use of online or digitized journals will be so prevalent among faculty and students that it will not be necessary to maintain library collections of hard-copy journals.
- a. 52% agree with this statement
10. Within the next five years, the use of electronic scholarly monographs will be so prevalent among faculty and students that it will not be necessary to maintain library collections of hard-copy books.
- a. 13% agree with this statement

- b. 35% of public libraries agree with this statement

Yes/No Questions regarding collection management:

11. Has your library de-accessioned a significant number (i.e. more than 2-3% of your collection) of print monographs or journals because you have access to them in an electronic or digital format?
 - a. 50% of academic library respondents answered yes.
 - b. 23% of public library respondents answered yes.

12. Are you currently working with other MN libraries in managing your collection, i.e. in deciding what to withdraw as part of a consortium effort?
 - a. 9% of academic libraries answered yes.
 - b. 15% of public libraries answered yes.

13. Does your library have a formal collection management policy for de-accessioning print materials that are available to you digitally as well?
 - a. 27% of academic libraries answered yes.
 - b. None of the public libraries reported having collection management policies of this type.

Suppose there existed a robust national system for preservation of and access to historical monograph collections. In such a system, the millions of books digitized through Google library digitization project would be readily available in digital form for use by your community. In addition, preservation would be assured, with digital preservation provided by the HathiTrust partnership and the paper source materials preserved via a suitable number of print archives. Ultimately, discovery and accessibility would be greatly improved while preservation would be assured.

14. If such a system existed and your library could provide guaranteed on-demand access to the print versions via a trusted sharing network, how likely would you be to withdraw your print book collections?
 - a. 54% indicated agreement with this statement.

15. Is the withdrawal of print books following their digitization in the context of such a system more a strategy for your library or more a strategy for other libraries?
 - a. 37.5% of academic libraries indicated that this was a strategy for themselves and not just for others.
 - b. 17% of public libraries indicated the same as above.

Distributed Archiving: Suppose there existed in Minnesota (or the region) a robust “distributed archiving system” for coordinated collection management and shared print archiving. The leading model today is WEST, the Western Regional Storage

Trust (see <http://www.cdlib.org/services/collections/sharedprint/westinitiative.html>) In such a system a partnership of libraries would identify widely held titles (that are little used and/or available digitally from a trusted source) and cooperate to ensure that enough print copies are permanently retained in the state (or the region) to meet future needs for print. These permanently retained copies might reside in MLAC or in the collections of participating libraries. Knowing that there were print copies archived for the state, and within the context of a service agreement that would provide access to all participating libraries, other libraries could safely withdraw their print copies if they wished.

16. If such a system existed, how interested might you be in exploring the benefits of participating?
 - a. 83% of academic libraries expressed interest in this exploring the benefits of distributed archiving.
 - b. 65% of public libraries expressed this interest.
17. If such a system existed, how likely would you be to make decisions about de-accessioning materials within the context of such a system?
 - a. 80% of academic libraries indicated a likelihood of making decisions within the context of a distributed archiving system.
 - b. 65% of public libraries expressed the same sentiment.
18. If such a system existed, how likely would you be to participate by volunteering to retain certain print titles in trust for the distributed archive?
 - a. 83% of academic libraries indicated a likelihood of participation by volunteering to retain certain print titles in trust.
 - b. 59% of public libraries.

Potential New MLAC Services:

19. Workshops:
 - a. Weeding journal runs?
 - i. 52% academic
 - ii. 4.5% public
 - b. Weeding monographs?
 - i. 56% academic
 - ii. 14% public
 - c. Developing a collection management policy for your library?
 - i. 60% academic
 - ii. 50% public
 - d. Setting priorities for digitizing content from your collections?
 - i. 80% academic
 - ii. 31.7%
 - e. Proper storage and handling of library materials?

- i. 44% academic
- ii. same

20. Services

- a. Microform storage services?
 - i. 52% of academic
 - ii. 24% public
- b. Analog to digital conversion services
 - i. 72% academic
 - ii. 23% public
- c. Writing grant proposals for cooperative collection management?
 - i. 60% academic
 - ii. 39% public
- d. Please list additional workshops and services you would find useful/valuable:

21. **How satisfied are you with the services you currently receive from MLAC?**

- a. 74% academic libraries expressed satisfaction with MLAC services
- b. 60% public