

**2008 FINAL REPORT AND EXPENDITURES FOR  
LIBRARY SERVICES AND TECHNOLOGY ACT (LSTA) GRANT**

Submit one electronic copy (Word Format ONLY) and one signed and dated original to:

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Due to the State Library Agency 30 days after close of the grant program

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**Minnesota LSTA FFY2008-Final Report.** Follow the exact form, contents and pagination provided.  
(A separate report must be completed for each LSTA project for which you received funding.)

**1. Name and address of grant recipient:**

MINITEX Library Information Network,  
15 Andersen Library,  
222-21<sup>st</sup> Ave. S.,  
Minneapolis, MN 55455-0439

**2. Name, title, phone, fax and e-mail address of grant administrator:**

**Grant Administrator/Coordinator:** Mary Parker, Associate Director, MINITEX – 1-800-462-5348 – m-park1@umn.edu;

**Project director:** Keith Ewing, Learning Resources & Technology Services, St. Cloud State University – 320-308-4824 – kewing@stcloudstate.edu

**3. Name of Project:** \_\_ Minnesota Digital Library Development and Expansion \_\_

**4. CFMS #** \_\_ B17122 \_\_

**5. Grant was obtained under:** *State of Minnesota Five Year State Plan for the Use of Library Services and Technology Act (LSTA) Funds - Fiscal Years 2003-2007 and the LSTA Priorities for FY 2003.*

- a. Federal Project purpose number: \_\_\_\_\_
- b. LSTA Plan Goal number: \_\_\_\_\_2B\_\_\_\_\_
- c. LSTA Plan Activity letter: \_\_\_\_\_3\_\_\_\_\_
- d. Federal Congressional District(s) \_\_\_\_\_All\_\_\_\_\_

**6. People Served:** Give the actual (real) number of end users directly served by this project.

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**7. Narrative report for project.**

**A. Project Purpose: See Directions**

Goal 1 – Digitize approx. 7000 objects, with increasing attention to hand-written documents and maps.

Goal 2 – Contract with a consultant to conduct a use analysis and user assessment of “Minnesota Reflections” in order to identify potential ways to improve or enhance user satisfaction.

Goal 3 – Further refinement and expansion of the social networking aspects of “Minnesota Reflections.”

Goal 4 – Continue development and expansion of the use of Pachyderm authoring software for the creation of learning objects.

Goal 5 – Continue to develop and refine a means to search widely distributed databases of existing collections outside of “Minnesota Reflections” across Minnesota; continue to explore broader access to content in “Minnesota Reflections.”

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## B. Project Activities/Methods: See Directions

Goal 1 – Digitize approx. 7000 objects, with increasing attention to hand-written documents and maps.

The MDL accepted project proposals from 37 organizations, resulting in the digitization of 4398 images (49.79%), 3813 document pages (with transcriptions for about 1880 handwritten pages; 43.17%) and 622 maps (7.04%). In total, we digitized 8833 pages, exceeding our project goal by 26%

We are especially pleased to add eight new participating organizations:

- Excelsior-Lake Minnetonka Historical Society (184 photos)
- Grant County Historical Society (2 plat books)
- Metropolitan Medical Center (115 photographs)
- Mower County Historical Society (184 photographs, 1 atlas, 4 documents)
- Murray County Historical Society (200 photographs)
- Soudan Underground Mine State Park (36 photographs, 1 letter, 32 maps)
- Watonwan County Historical Society (106 photographs)
- Westonka Historical Society (5 photographs, 194 postcards)

In addition, 27 continuing participants contributed additional content:

- Basilica of St. Mary (2 projects: 5 books)
- Blue Earth County Historical Society (2 projects: 365 photographs, 207 postcards, 1 plat book)
- Concordia University (110 photographs)
- Cottonwood County Historical Society (110 photographs, 3 plat books)
- Hamline University (525 documents)
- Hennepin History Museum (1 diary)
- Hennepin Public Library (2 projects: 106 photos, 2 photo albums, 1 booklet, 36 maps),
- Iron Range Research Center (2 projects: 115 maps, 107 photos)
- Jewish Historical Society of the Upper Midwest (19 photos, 14 documents)
- Macalester College (155 photographs)
- Minnesota Geological Survey (1 ledger)
- Minnesota Legislative Reference Library (403 photos)
- Minnesota Streetcar Museum (327 photos)
- Morrison County Historical Society (2 projects: 4 booklets, 3 plat books)
- Nicollet County Historical Society (221 photographs, 4 plat books)
- Northeast Minnesota Historical Center (11 audio tapes)
- Order of St. Benedict (56 photograph)
- Pipestone County Historical Society (171 photographs)
- Pope County Historical Society (3 plat books)
- Probstfield Family Living History Farm (1 journal)
- Renville County Historical Society (2 plat books)
- Scott County Historical Society (55 photographs)
- Stearns County History Museum (53 photographs, 260 documents)
- Stillwater Public Library (18 letters)
- St. Cloud State University Archives (2 projects: 265 letters, 138 photographs)

- St. Peter Regional Treatment Center (25 postcards, 1 photo album)
- Waseca County Historical Society (14 photographs)

One project, from the Northeast Minnesota Historical Center, involved the digitization of audio files, a new initiative and media format for the MDL. These files are not available to the public while we investigate the most appropriate way to provide access.

Goal 2 – Contract with a consultant to conduct a use analysis and user assessment of “Minnesota Reflections” in order to identify potential ways to improve or enhance user satisfaction.

The MDL contracted with Christa Treichel of Cooperative Ventures, a St. Paul-based consultant selected from an RFP process, to conduct the user assessment. An initial planning meeting with the contractor, members of the MDL management team, and a representative from MINITEX was held on 18 December in Minneapolis. The meeting identified primary goals and expectations for the assessment as well as various methodologies to be employed, including online surveys, focus groups, and individual interviews. The lack of systematic user analysis by participating organizations with content in “Minnesota Reflections” and the small number of respondents to the online survey respondents in this assessment hinders the overall reliability of the study.

Nonetheless, the final report, submitted in June 2009, largely confirmed many of the objectives established during the MDL planning conference in August 2001. For example, through interviews, link analysis and survey results the study confirmed that a variety of audiences use “Minnesota Reflections,” including (in no particular order)--

- K-12 students
- K-12 teachers and staff
- Students in higher education
- Faculty and staff in higher education
- Library staff
- Adult library patrons (including genealogists, hobbyists, and history enthusiasts)
- Other groups (including journalists, publishers, professional or academic researchers)

Users are drawn to the MDL collections because of the variety of materials (images, documents, texts) as well as the focus on local, regional, or state geography, history, and culture. Users did express a slight preference for images and pictures, followed by personal narratives or genealogical information; few people seemed interested in the maps, although the plat books are a significant source of genealogical information.

Respondents to the online surveys were overwhelmingly “satisfied” with content available in “Minnesota Reflections” (41% “Very satisfied,” 38% “Satisfied,” and 15% “Somewhat satisfied”); a minority was unsatisfied (6% “Not satisfied at all). While the number of respondents was small, the response shows that the MDL is fulfilling user expectations and needs.

The consultant submitted a final report on 24 June 2009. The MDL Management Team will review the study in order to identify ways to enhance user satisfaction with and to improve the content of “Minnesota Reflections.”

### Goal 3 – Further refinement and expansion of the social networking aspects of “Minnesota Reflections.”

MDL continues to contract with Eric Celeste to refine the social networking aspects of “Minnesota Reflections.” The major user with a user’s interaction with content is a new “comment” button that is easier to see on the page but also changes the message from “post a comment” to “read/post comments” when previous viewers have written a comment. During the grant period, 250 comments were added to 214 objects from 58 different collections; the contribution rate (0.51 per day) is 20% higher than during the first year. Amazingly, we have yet to receive a single “spam” or inappropriate comment.

Overall, the majority of the comments add to the “story” associated with the image, expanding upon or correcting what is known in the metadata. At the moment, comments are only available with simple, single-page objects; a comments capability for complex, multiple-page objects is being developed.

In Spring 2009, we provided participating organizations with the ability to receive email notification when new comments are made on objects in their collections. To date, about twelve participating organizations have asked for this notification.

One potential future hurdle that MDL may need to resolve is the “screen-scraping” approach to capture metadata in the comments forum. This approach is vulnerable to small changes in the CONTENTdm interface.

A different aspect of social networking, which also falls under Goal 5 to promote broader access, was MDL decision to participate in a “destination” site where digital content is likely to attract more notice. Following the lead of the Library of Congress and other digital projects, the MDL investigated joining the Flickr Commons, a portion of Flickr that promotes discovery and encourages user participation and discussion with digital objects.

The MDL discovered that the Flickr agreement was beyond the MDL’s capacity to speak for the member participants in “Minnesota Reflections”—each participating organization had to sign the Flickr agreement. The Jewish Historical Society of the Upper Midwest (JHSUM) became an eager partner in developing a workflow and mechanism to move content from “Minnesota Reflections” to the Flickr Commons. Eric developed scripts to extract images and metadata from CONTENTdm using a combination of OAI harvesting and the PHP JPEG Metadata Toolkit. Then, using phpFlickr to “glue” the images with their associated metadata, and the Flickr API to create the desired Flickr record, the upload, either in single or batch configuration, to the Flickr Commons was accomplished.

Eric facilitated the negotiations on the agreement between Flickr and JHSUM and the JHSUM found the agreement acceptable. Unfortunately, the Flickr Commons has proven to be very popular and Yahoo has a large backlog. Consequently, JHSUM loaded their images into their existing Flickr account; this existing account will become the Commons account once Flickr accepts them into the program. This is anticipated to occur in Fall 2009.

The final result is that MDL can now support any participant’s desire to have a Flickr Commons account to promote broader access to their digital objects.

Goal 4 – Continue development and expansion of the use of Pachyderm authoring software for the creation of learning objects.

Interest in the Pachyderm authoring software continues to grow, primarily in the education community. MDL is partnering with MnSCU and the University of Minnesota to further develop the software. Learning Resources & Technology Services at St. Cloud State University, a partner in MDL, applied for and was awarded a grant from the Minnesota Learning Commons to provide face-to-face training and develop online training for Pachyderm.

During Fall 2008 MDL contracted with Sandbox Studios to provide Pachyderm training to a class of senior education majors (12 students) at St. Cloud State University (instructor: Kyle Ward; course: Social Studies 453: Teaching Social Studies in Middle and Secondary School); a second training session for the Spring section was held in early 2009. These were the MDL's initial attempt to address training teachers while they are learning to be teachers, when they are open to innovative techniques and process. Unfortunately, because the syllabus for the course did not allocate sufficient time to the projects; students were unable to present their Pachyderm projects to the class. One of the students used his Pachyderm experience as part of a presentation to the Minnesota Council for Social Studies (MCSS) at their annual meeting in March. A third training session, hosted by St. Cloud State, started in July 2009.

The final report on the training was provided to MDL in June 2009. Only one student questioned the need for Pachyderm; that student felt that PowerPoint was an adequate alternative. A change in the training program, incorporating a project and presentation toward the end of the semester, improved overall understanding of the authoring environment and engaged the students more directly. Another change, from a wireless laptop environment in the fall to a hard-wired computer lab in the spring, reduced the number of technical problems that interrupted the class and led to greater student success and confidence with the software. Overall, evaluation data and student enthusiasm indicated that Pachyderm was perceived as a valuable tool in a teacher's toolkit, allowing them to better integrate content from "Minnesota Reflections" with other online content for their curriculums.

Minitex Reference, working with MDL and Sandbox Studios, is creating a series of video tutorials to complement the Pachyderm training manual. These tutorials, developed under a grant from the Minnesota Learning Commons, will help MN educators to create effective multimedia learning objects using the Pachyderm software. These will become available starting in Fall 2009.

As a consequence of this training experience, Marian Rengel made a presentation on the MDL and Pachyderm at the MCSS annual meeting. The presentation was well-received and interest in Pachyderm was high among session attendees.

Goal 5 – Continue to develop and refine a means to search widely distributed databases of existing collections outside of "Minnesota Reflections" across Minnesota; continue to explore broader access to content in "Minnesota Reflections."

This goal involves several discrete initiatives.

- a. The oldest initiative involves allowing OCLC to harvest metadata from the "Minnesota Reflections" CONTENTdm server and integrate the records into OCLC's WorldCat service, an open catalog of library and digital library content worldwide. The "Minnesota Reflections" project is complicated by having many participating organizations, mapping metadata from MDL Dublin Core to WorldCat MARC, and both simple and compound objects. Under a previous LSTA grant, the MDL worked with Minitex to create OCLC holding library symbols. By the end of August 2008, technical issues were resolved and the first collection of metadata

for 70 objects was added to WorldCat.

By the end of June 2009, OCLC symbols were created for an additional 18 institutions (total of 101 symbols), and the metadata for over 11,000 records from 70 participating institutions had been added to WorldCat. However, the metadata for the collections of 24 institutions has not been added to WorldCat because of technical problems with the harvest. This continuation of metadata harvest will begin in Fall 2009 after moving to an OCLC-hosted CONTENTdm server (essentially complete except for testing as of the end of June 2009).

While it is possible to search for content in “Minnesota Reflections” through WorldCat (<http://www.worldcat.org>), it does require some effort and/or understanding of WorldCat indexing. For example, it is easier to locate MDL content by searching on the full name of the participating organization (e.g., “Big Stone County Historical Society Museum”) as the “author” rather than object title, creator, or keywords. OCLC continues work to address the harvest and indexing of complex objects.

- b. In a similar vein, the Minnesota Historical Society recently harvested metadata from “Minnesota Reflections” as part of their Great Rivers Cultural Heritage Network initiative (GRCHN; <http://www.grchn.org/>). As broadly conceived, GRCHN, through its Autonomy IDOL platform, will support regional searching of a variety of database content in Minnesota, North Dakota, and South Dakota. At present, the search only indexes the databases maintained by MHS. Eric Celeste is a consultant with MHS advising on an appropriate software platform for MHS database initiatives to replace the Autonomy IDOL platform. Members of the MDL Management Team will meet with MHS technical staff to discuss technical architecture issues for both MHS and MDL, laying a foundation for stronger joint systems in the future.
- c. MDL contracted with Eric Celeste to further develop and refine the “Minnesota Finder” wide-area search based on the Google Mini Search Appliance; a prototype was launched in April 2008 searching across “Minnesota Reflections” and the Pennington County Historical Society.

We established two basic rules for our approach to wide-area searching: participating institutions should be required to do as little as possible to their current database and whatever changes they were required to make would benefit their database even if the MDL’s wide-area search was terminated. During the current grant, the search was expanded to include a portion of MHS collections, as well as portions of CSB/SJU collections and portions of the Hennepin County Library digital collections. “Minnesota Finder” now searches 30,000 pages from “Minnesota Reflections,” 20,000 from Pennington County Historical Society, 40,000 from the MHS Visual Resources collection, 10,000 from HCL’s “Minneapolis Collection,” and about 100,000 from CSB/SJU collections. This filled our license on the Google Mini; in June we increased the license to accommodate additional content from “Reflections.”

Several critical changes were required for “Minnesota Finder” to be implemented:

- Participating libraries needed to ensure their databases were open so their digital collections for MDL’s Google crawler could harvest collections;
- Scoping the crawl in CONTENTdm to avoid variations in image size and orientation—this has a significant impact upon the Google Mini license limit;
- Changes to Google’s XSLT stylesheet, including changes to restricted portions of the code, and creation of a CSS file to support elements of the new results display;
- Creating a JavaScript to include thumbnail images from harvested collections in the results display.

Among the issues we learned that limits the MDL’s ability to crawl “all” potential participants in “Finder” is that not all systems have implemented the concept of “item records.” This limitation, for example, makes it impossible to include Twin Cities Public Television’s

“Minnesota Video Vault” in “Finder.”

“Minnesota Finder” was announced in January 2009, but overall use by the public remains minimal. This may be a consequence of the limited coverage, but more likely a result of limited public awareness and publicity.

Goal 6 – Increase public awareness through presentations and publicity; pursue opportunities to collaborate in regional and national projects.

With support from MINITEX, MDL published a new bookmark that is being widely distributed to libraries, schools, historical societies, and museums.

The MDL is overhauled its project Web site (<http://www.mndigital.org>) to highlight Pachyderm learning objects (under “For Educators”) and linking to other digital collections in Minnesota (under “Collections”)

Keith Ewing participated in a focus group discussion as part of the MHS/Midwest Art Conservation Center “Connecting Collections” project, a statewide planning grant funded by IMLS.

Marian Rengel discussed MDL projects on “Small Bytes,” a podcast show distributed online by St. Cloud State University (online at <http://media1.stcloudstate.edu/smallbytes/327-MarianRengel.mp3>). Ms. Rengel makes numerous presentations to library and historical society boards to encourage participation in MDL projects. She also presents the MDL to organizations and groups, such as 125 eighth graders from St. Cloud visiting the SCSU Library in November 2008, participated in an SCSU-sponsored training session on the History Day program for local high school students, presented at a history workshop at Hennepin County Library—Minneapolis in January 2009, presented at the Minnesota Council for Social Studies (MCSS) annual meeting, the Macalester Library Technology Conference, both in March 2009.

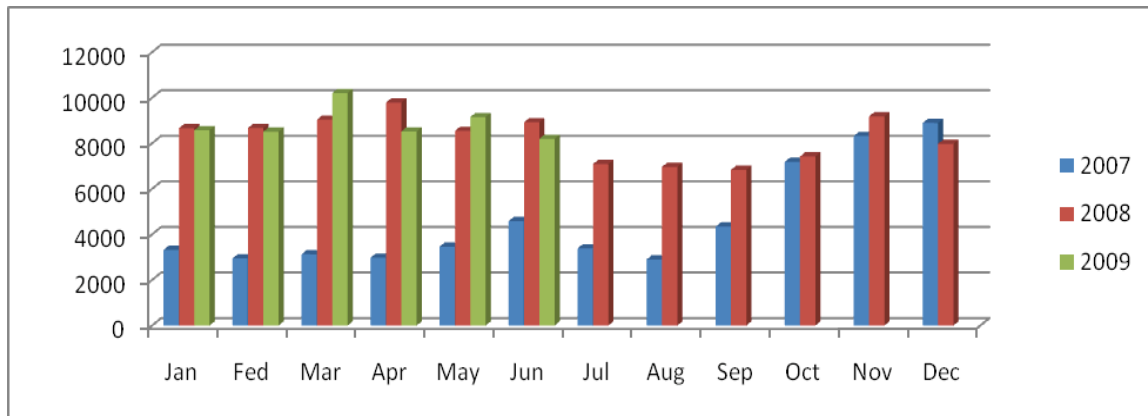
Scott Sayre (Sandbox Studios) and Jessica Potter (Blue Earth County Historical Society) represented the MDL at the initial organizational meeting in San Francisco with staff from the New Media Consortia and other participants in an IMLS National Leadership Grant: *Steve in Action: Social Tagging Tools and Methods Applied*, a project to further develop the “steve” tagging application (see <http://www.nmc.org/news/nmc/imls-steve-grant>). This 3-year project is designed to “encourage mainstream adoption of social tagging tools by cultural heritage organizations of all sizes and types;” the Steve team will “develop, implement, evaluate, and document multiple models for adopting social tagging.” The MDL’s CONTENTdm content management environment presents some unique and difficult challenges and various scenarios are being discussed. This is a long-term project that extends beyond the current grant, but has the potential to expand user interaction with content in “Minnesota Reflections.”

The MDL Annual Conference, held at the College of St. Benedict, with support for speakers provided by MHS, attracted 125 registrants. Overall, the response to the conference sessions was positive, although some were concerned that the keynote speaker was too technical.

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**C. Project Outputs:**

- Digitization—8833 total objects scanned
- Organizations—35 organizations submitted projects for this grant cycle
- Unique visitors to “Minnesota Reflections”—98,671, an increase of 9,962 over previous grant cycle
- Total visits to “Minnesota Reflections”—230,489, an increase of 49,904 over previous grant cycle
- Total pages viewed on “Minnesota Reflections”—2,005,024, an increase of 140,724 over previous grant cycle



- Pachyderm Training—28 people
- Annual Conference—125 registrations

**D. Project Outcomes:**

MDL contracted with Cooperative Ventures, St. Paul, MN, to conduct a user assessment for “Minnesota Reflections.” The assessment used an online survey and follow-up interviews with people at organizations requesting MDL bookmarks; an online survey and follow-up interviews with people at organizations contributing collections to “Minnesota Reflections;” an online survey of people who completed the feedback form or sent email to MDL staff; and an online survey embedded in the “Reflections” site since April 2009.

Respondents to the online surveys were overwhelmingly “satisfied” with content available in “Minnesota Reflections” (41% “Very satisfied,” 38% “Satisfied,” and 15% “Somewhat satisfied”); a small minority was unsatisfied (6% “Not satisfied at all). “70-80%” of individuals interviewed, a more select group than survey respondents, believe that “Reflections” is of value to the audiences served or to the organization’s staff. See the discussion under section B, Goal 2 above for more details.

## **E. Other Results**

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**8. Expenditures** on the project from all sources (Break down expenditures for all funds used on the project to include LSTA funds):

	<b>Federal-LSTA</b>	<b>State Funds</b>	<b>Local Funds</b>	<b>Member Funds</b>	<b>Other</b>	<b>Total</b>
Personnel – Project staff			36,381	4,897		41,278
Library Materials						
Online Resources						
Equipment and Furniture						
Telecommunications			1,000	1,000		2,000
Telecommunications Equipment						
Automation Hardware			9,500	5,300		14,800
Automation Software			725			725
Staff Development						
Supplies	1,978	7,072				9,050
Contractual	232,975	39,676		8,354		281,005
Other			2,500	10,000		12,500
<b>Totals</b>	<b>234,953</b>	<b>46,748</b>	<b>50,106</b>	<b>29,551</b>		<b>361,358</b>

**9. Continuation: See Directions**

The Minnesota Legislature, in its 2009 session, included language relating to the Minnesota Digital Library in drafts of legislation in the House (HF1231). The MDL name was removed from the conference committee final version of the bill (MN Session Laws Ch. 172, Art. 4 Arts and Cultural Heritage Fund Appropriations, Subd. 4, Para. g): “Digital Library. \$500,000 in 2010 is appropriated for a digital library project to preserve, digitize, and share Minnesota images, documents, and historic materials. The Minnesota Historical Society shall cooperate with the MINITEX system and shall jointly share this appropriation for these purposes.” MDL, under Minitex, has negotiated with MHS an initial allocation to reduce the dependency upon the LSTA grant. The MDL Management Group interprets the “Digital Library project” to be the “Minnesota Digital Library”. This language in the legislation lays the groundwork for the additional funding for the MDL and for its expansion into new digitization areas. Further discussions are planned

To address continuing concerns about server upgrades and support, the MDL moved “Minnesota

Reflections” from an MDL server at the University of Minnesota to a hosted server at OCLC headquarters in Ohio. The initial costs for this move, higher than the annual costs at the UofM, were covered by the current LSTA grant; subsequent annual costs will be substantially lower. The cost of the move should amortize over 5-6 years.

**Minnesota LSTA FFY 2008-Final Report**

(Follow the exact form, contents and pagination provided.)

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**10. Attachments:** Attach to this form any materials relevant to this project evaluation, such as survey questions, comparative statistics, news clippings, testimonial letters, reports and reactions from participants or residents of the community. If your project resulted in bibliographies, brochures, handbooks, A.V., catalogs, etc., **attach a minimum of three copies of each item.**

**11. Signatures:** We, the undersigned certify that the data and information contained in this report are true and correct to the best of our knowledge and belief.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Library Board President/School Superintendent/University Dean

\_\_\_\_\_  
Date

\_\_\_\_\_  
Library Director/Media Specialist

**FFY2008 Final Report due to the State Library Agency and postmarked no later than Friday, July 31, 2009.**