

LIBRARY COMMITTEE
MINUTES OF MEETING

May 4, 2011

101 Walter Library

[In these minutes: letter to the Provost re: funding and physical space; digital preservation strategies; alternative long-term preservation strategies for digital content; committee business]

[These minutes reflect discussion and debate at a meeting of a committee of the University of Minnesota Senate; none of the comments, conclusions or actions reported in these minutes represent the views of, nor are they binding on, the Senate, the Administration or the Board of Regents.]

PRESENT:

Neil Olszewski (Chair), Bradford Clemens, Vicki Graham, LeAnn Dean, Jennifer Alexander, J. Woods Halley, Suzanne Thorpe (for Joan Howland), Monica Howell, James Orf

REGRETS: Danielle Tisinger, Wendy Lougee, Bill Sozansky, Michelle Englund, Owen Williams, David Zopfi-Jordan, Elizabeth Fine, Mary Beth Sancomb-Moran, Jonathan Binks, John Logie,

ABSENT: Ted Higman, Ronald Hadsall, Joseph Spanjers, Peter Hudleston (for David Fox),

GUESTS: John Butler, Associate University Librarian for Information Technology; Jon Nichols, Libraries Digital Preservation Strategist

Professor Neil Olszewski called the meeting to order, welcomed those present, and introduced guests: John Butler, Associate University Librarian for Information Technology, and Jon Nichols, Libraries Digital Preservation Strategist. He then briefly reviewed the agenda.

Letter to the Provost re: Funding and Space for Physical Collections

Professor Olszewski provided the Senate Library Committee (SLC) with the revised letter to Provost Tom Sullivan expressing the SLC's concerns about funding and space for physical collections. The letter follows.

Dear Provost Sullivan,

I am contacting you in my capacity as chair of the Senate Library Committee to express the committee's concerns and recommendations regarding two significant interrelated issues confronting the University Libraries. The first issue is that the Libraries are running out of space for housing the physical collection. Even with its emphasis on acquiring digital publications instead of physical material, the physical collection is growing at a rate of over 100,000 volumes per year. It is our opinion that for the Libraries to effectively fulfill ~~its~~ **their** mission

such continued growth of the physical collection is necessary. The current library spaces are at, or near capacity, which has forced the Libraries to renovate space in the West Bank Office Building and lease storage space in Printing Services. Creating multiple storage spaces is a less than optimal solution to this problem both with respect to cost and the inefficiencies of retrieving material from multiple sites. Since the need for finding additional space will continue into the foreseeable future, it is important that the University of Minnesota begin moving towards a more effective and economical solution to this problem. This committee recommends that the University of Minnesota make acquisition of additional environmentally controlled storage (e.g., construction of a third storage cavern) a top priority in its capital planning.

Additional environmentally controlled storage will also serve as a partial solution to the other issue facing the Libraries, which is preservation of the physical collection. The Libraries estimates that approximately 30% of the print holdings are brittle or damaged, largely due to being on acidic paper. While the majority of contemporary publishing is on acid-free paper which can last well beyond 500 years, older acid materials are in various stages of deterioration with an expected shelf life measured in decades, not centuries. The Libraries are using several strategies to address this problem. These strategies, which are not mutually exclusive, include digitization of sensitive material, cooperation with other institutions to develop shared and coordinated solutions, conservation treatment of unique and rare material, and storage of sensitive material in an environment, such as the storage caverns, that reduces the rate at which the degradation process proceeds. One study suggests that the life of printed material stored under the environmental conditions found in the caverns is at least 1.7 times longer than when stored in the environments of the Libraries' other buildings.

Last year, the Libraries engaged a consultant to assess its preservation program and make recommendations about priorities in light of increasing mass digitization. The consultant affirmed the strategies being employed, but also emphasized the importance of increased investment in local and collaborative programs (e.g., within the CIC), as well as expansion to include preservation of digital works. The Senate Library Committee believes that effective implementation of these strategies requires additional staff and funding and therefore recommends that the University of Minnesota recognize the importance of protecting the Libraries' physical collections by committing additional funds to preserving these valuable assets for current and future scholarship.

Sincerely,

Neil Olszewski, chair
Senate Library Committee

Professor Olszewski explained the revisions made to draft letter presented at the April meeting. The committee suggested minor grammatical changes set out above in bold. The committee voted to send the revised letter to Provost Sullivan.

Digital Preservation Continued: University Planning and Commitments

Mr. Butler and Mr. Nichols began a presentation on the Libraries' digital preservation strategies at the SLC's April meeting, but due to time constraints, did not complete it. Mr. Butler and Mr. Nichols continued that presentation. Mr. Butler began by discussing the elements of the digital object preservation process: redundancy, verification, repair,

and recovery. He stated these processes must be policy driven, sustainable, and attainable. Mr. Butler next focused on the University Libraries' planning and existing commitments. He stated the Libraries, like many large research libraries, is still grappling with policy as it relates to sustainability, economics, and investment. There are also legal issues related to the University's contractual agreements with Google in the large-scale book digitization project. Professor Olszewski asked if the University has a policy regarding preservation. Mr. Butler responded that the print and digital preservation policies are still in formation. The University Libraries, through its work with the Minnesota Digital Library at the state-level, is working with a consultant on these issues. Also, a new hire in Libraries' collection management will assist with developing preservation policy. Mr. Butler noted that Mr. Nichols is the Libraries' digital preservation strategist, and asked for his comments. Mr. Nichols stated that until recently the Libraries relied on general collections policies. Currently, the Libraries is aligning development of policies, procedures, and practices with the widely-recognized Trustworthy Repositories Audit & Certification (TRAC) process. This process fits into national efforts and allows for collaboration.

Next, Mr. Butler discussed determining where investments should be made from a collections management point of view. He showed the SLC a collections grid model, developed by a large-scale library cooperative, being used to guide development of priorities for preservation investments across the Libraries. The grid shows the uniqueness and stewardship/scarcity of: books and journals, special collections, research and learning materials, and freely-accessible web resources. Professor Woods Halley asked what fraction of the materials judged unique had been digitized. Mr. Butler estimated that the Libraries have digitized less than five percent of the archival special collection materials. Professor Halley asked at what rate these materials were being digitization. Mr. Butler explained that these are expensive processes, and the rate of digitization ebbs and flows and is often dependent on grant funding. Professor Olszewski asked if there is a concern that some materials might be lost because the rate of digitization is not great enough. Mr. Butler explained that the physical integrity of many of the unique archival materials is not in danger and that, frequently, the goal of digitization is to increase access to them. He stated that policy is important to help determine what should be digitized first, and he noted the economic value of the Google digitization project. Professor Halley asked if Google was interested in digitizing archival materials. Mr. Butler responded that Google was not initially interested in this, and a pilot project with the University of Michigan did not go well. Professor Halley asked why there are no "public funds" for preservation. He opined that the central task of libraries is to preserve intellectual heritage, and it should not be dependent on grants and donations. Regular funds should be used to preserve the collection. Mr. Butler responded that this goes to the issue of overall budgeting priorities and whether operating funds are sufficient to support archival preservation at scale. Professor Olszewski suggested this would be a good topic to explore in the future.

Professor Jennifer Alexander asked why the research and learning materials were classified as low scarcity items on the grid model shown. Mr. Butler responded that this represents a judgment made by the authors of the model grid but, as applied, may change

due to factors and interests that the University of Minnesota deems important. For example, in light of new National Science Foundation (NSF) requirements for the management research data and intentions for long-term public access to datasets, the stewardship level needed for this information type may increase.

Mr. Butler next discussed the areas where the University Libraries have made commitments including:

- HathiTrust
- Portico
- Inter-university Consortium for Political and Social Research (ICPSR)
- Various bridge solutions
 - Institutional data/docs
 - New formats
 - Science data (NSF mandate)

He showed a graph demonstrating three large-scale OAIS-compliant digital preservation services (HathiTrust, Portico, and MetaArchive over LOCKSS), and their scale and scope, including the number of journal titles, book titles, total files archived, the number of participating organizations (both publishers and libraries), and quantity of storage used in their preservation operations.

Professor Olszewski noted that these services do not assist with those documents categorized as highly unique and highly scarce. Mr. Butler acknowledged this, but noted that, in a recent pilot project, the University Libraries had worked with HathiTrust to preserve 60,000 images from the statewide digital repository of one of a kind objects from cultural heritage institutions across the state.

Mr. Butler next showed a slide comparing storage costs per volume for one year for three different digital storage services, and microfilm, and books. He stated that comparing costs from service to service is difficult, and the cost estimates do not include costs such as operational staff or software programming. He stated the purpose of the slide is to demonstrate that there are ongoing costs every time something is committed to a digital archive. Professor Olszewski noted that the \$3.86 per gigabyte per year is the amortized cost across all current participants in the HathiTrust and the \$4.28 cost of maintaining a book on the shelf is the University Libraries cost. Mr. Nichols stated that new participants in HathiTrust would each be charged at the \$3.86 rate. Professor Alexander asked if there was an effort to move from microfilm to digital. Mr. Butler responded that in order to promote access, there has been digital conversion of microfilm. Professor Woods asked if the storage cost estimates include all of the digital preservation systems' overhead costs. Mr. Butler stated that they are not included, but the predominant cost of the digital systems' operations is in the infrastructure. Mr. Butler concluded by stating the University Libraries is developing its policy in the aggregate for print and digital and considering which infrastructures and tools it should select to achieve its policy aims.

Alternative Long-Term Preservation Strategies for Digital Content

Professor Woods Halley led the conversation on long-term strategies for preservation of digital content. The committee was provided with several papers on this issue prior to the meeting. Professor Woods stated he is concerned about the physical media (spinning discs) involved in long-term digital preservation systems such as the Hathi Trust and Google. He stated it has many vulnerabilities such as the need to be rewritten every seven years. He stated further that in Europe, others share his concern about the vulnerability of spinning disc technology, and are studying alternatives such as optical discs and digital microfilm. He also noted some advantages of digital microfilm. For instance, there is less maintenance and overhead, it has an estimated lifetime of up to 500 years, it is difficult to alter, and you do not need complicated reading devices. Professor James Orf asked if the microfilm is celluloid. Professor Halley responded that it is, but it can also be made from renewable resources. Professor Halley also discussed the methods of encoding microfilm, its low error rates, and the small amount of space needed for storage. Professor Olszewski pointed out that this type of microfilm storage would be for preservation purposes not daily access. Professor Halley agreed stating that it could serve as a layer on top of the current preservation methods.

Professor Halley next discussed options for action. He suggested the SLC:

- Encourage the University Libraries staff to look into alternate methods of preservation such as digital microfilm
- Encourage the University Libraries to undertake a detailed technical study and create a proposal
- Invite experts for a symposium on physical options for long-term storage
- Immediately recommend the digital microfilm option and lobby for funds to back up Hathi and/or unique portions of the Minnesota collections

Bradford Clemens noted the advances in magnetic disc drive technology that would soon replace the spinning disc technology used by Hathi, and might eliminate the physical vulnerability concerns expressed by Professor Halley. Mr. Butler suggested it would be important to evaluate the expressed concerns about the current system and see how those systems are prepared to handle failure scenarios. Professor Woods responded that he is not advocating replacing current preservation systems. Professor Olszewski suggested the SLC could further explore whether there is a need for additional preservation systems and lobby for a multi-institutional or national effort to implement alternative preservation strategies. However, Professor Olszewski indicated he wanted to know whether the entire European community believes alternative long-term digital preservation methods are needed, or if it is just a small community of scientists. Mr. Nichols stated it is his sense that the Europeans are ahead of the Americans in terms of research and storage solutions. But the alternative digital preservation strategies are still in the research stage, not at the daily production level. He stated the Pro Quest Company is interested in digital microfilm storage and might be an avenue the SLC could explore.

Planning for 2011-12

As a starting point for discussion of the 2011-12 SLC agenda, Professor Olszewski provided the SLC with a list of themes and agenda items from 2010-11. The SLC discussed the following issues as possible agenda topics for 2011-12.

- A report from the ad hoc committee on Open Access
- Learning more about copyright law and policy, and exploring methods to lobby for change to existing copyright laws, possibly working for a national initiative.
- Inviting Al Franken to meet with the committee about copyright issues
- Professor Halley suggested the committee should consider a realignment of the University Libraries priorities more toward preservation and copyright and less toward educational access, and handling NSF data management requirements.
- Professor Olszewski suggested the SLC could consider the long-term vision for where the Libraries should be in five years. He suggested the SLC could study other libraries long-term planning documents.

The committee further discussed the role of libraries. They considered their need to remain relevant for users and facilitate access for users versus their preservation role.

Old Business

Professor Olszewski reported he had heard nothing further at this time about the CIC proposal regarding scholarly publishing and communication.

Hearing no further business, Professor Olszewski adjourned the meeting.

Dawn Zugay
University Senate Office