

# Transportation Librarian's Toolkit

Maggie Sacco and Christi Powers

Report No. 0092-06-31  
**December 2007**



**WISCONSIN DOT**  
Wisconsin Department of Transportation Research & Library Unit



**MRUTC**  
Midwest Regional University Transportation Center

**NOTICE:**

This research was funded by the Wisconsin Department of Transportation, the Federal Highway Administration and other participating agencies under Transportation Pooled Fund #TPF-5(105) and WisDOT Projects 0092-06-30 and 0092-06-31 (MRUTC Project 06-11). The information reported is the result of research performed under the auspices of the Transportation Library Connectivity Pooled Fund Project. The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views of the Wisconsin Department of Transportation or the Federal Highway Administration at the time of publication.

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof. This report does not constitute a standard, specification or regulation.

The United States Government does not endorse products or manufacturers. Trade and manufacturers' names appear in this report only because they are considered essential to the object of this document.





# Table of Contents

Acknowledgments.....	v
Foreword .....	vi
<b>Introduction—Tools for a Successful Transportation Library .....</b>	<b>1</b>
<b>I. Deliver Essential Library Services.....</b>	<b>3</b>
Reference and Literature Searches .....	3
Internet and Intranet Pages .....	4
Cataloging .....	4
Interlibrary Loan and Document Delivery .....	5
News Alerts .....	5
News Clips and Newsletters .....	5
Journals.....	5
Training .....	6
<b>II. Plan an Effective Collection for Your Customers.....</b>	<b>7</b>
Reference Collection .....	7
Monograph Collection.....	7
Serials Collection .....	7
Transportation Reports .....	8
Online Resources.....	8
Open Access.....	10
Subscription Databases.....	10
<b>III. Make the Most of Your Space.....</b>	<b>12</b>
Space Planning .....	12
Rethinking the Transportation Library: The WisDOT iCommons.....	12
<b>IV. Put Best Practices to Work.....</b>	<b>14</b>
Mission Statement .....	14
Budgeting .....	14
Policies .....	15
Copyright.....	15
Selecting an ILS .....	16
Collection Development.....	17
Managing Electronic Resources .....	18
Performance Measures .....	18
<b>V. Market Your Services Creatively.....</b>	<b>21</b>
Knowing the Library’s Audience .....	21
Establishing a Library Committee .....	21
Developing Library Marketing Collateral .....	21
<b>VI. Network, Network, Network .....</b>	<b>22</b>
Professional Organizations and Resources .....	22
<b>VII. Learn the Lay of the Land .....</b>	<b>24</b>
Federal Transportation Agencies and Organizations.....	24
Nonprofit and Nonpartisan Organizations.....	25
TRB .....	26
Directory of Transportation Libraries.....	26
Directory of State Highway and Transportation Department Libraries.....	26
TRB Special Report 284.....	26
NCHRP 20-75 .....	27
Transportation Abbreviations and Acronyms.....	27

**Conclusion: The Road Ahead** .....28

**Appendices** .....29

Appendix A: TLCat Libraries .....A-1  
Appendix B: OCLC Regional Service Providers .....B-1  
Appendix C: Sample Core Journal Collection (Mn/DOT Library) .....C-1  
Appendix D: Sample Library Floor Plan (Mn/DOT Library) .....D-1  
Appendix E: Sample ILL Policy (Washington State DOT Library).....E-1  
Appendix F: Pooled Fund Libraries' ILS/OPACs.....F-1  
Appendix G: Sample Collection Development Policy (Mn/DOT Library).....G-1  
Appendix H: Pooled Fund Statistical Tracking Tool .....H-1  
Appendix I: Iowa DOT Library User Survey .....I-1  
Appendix J: Return on Investment Formula (Jerry Baldwin, Mn/DOT).....J-1

**Bibliography**

## **Acknowledgments**

### **Technical Advisory Committee**

This study was proposed by the Wisconsin Department of Transportation as the lead state for the Transportation Library Connectivity pooled fund study, TPF-5(105). The work was guided by a technical advisory committee chaired by Ann Pahnke and previously by Nina McLawhorn, WisDOT. Other members of the TAC are Lisa Autio, Montana DOT; Jerry Baldwin, Minnesota DOT; Jason Bittner, Midwest Regional University Transportation Center at UW-Madison; Janet Bix, Ohio DOT; Cheryl Bodan, Pennsylvania DOT; John Cherney, WisDOT; Steve Cochran and Kathy Szolomayer, Washington State DOT; Susan Haake, Caltrans; Inez Hopkins, Idaho Transportation Department; Ruth Letson, Tennessee DOT; Marie Manthe, Kansas DOT; Arlene Mathison, University of Minnesota Center for Transportation Studies; Danielle Pollock, Missouri DOT; James Watkins, Mississippi DOT; Laura Wilt, Oregon DOT; and Hank Zaletel, Iowa DOT.

### **Research Managers and Others**

The DOT research managers who assisted in the administrative oversight of this study included Nikki Hatch, research administrator for WisDOT; Teresa Adams, Wisconsin Transportation Center at UW-Madison; Christine Azevedo, Caltrans; Elizabeth Bieryla, PennDOT; Sandi Hoff, Tennessee DOT; Barnie Jones, Oregon DOT; Sue Lodahl, Mn/DOT; Dick McReynolds, Kansas DOT; Leni Oman, WSDOT; Karen Pannell, Ohio DOT; Skip Paul and Glynn Cavin, Louisiana DOT; Sue Sillick, Montana DOT; and ex officio member Amanda J. Wilson, National Transportation Library.

## Foreword

The Technical Advisory Committee members of the Transportation Library Connectivity pooled fund study have been instrumental in creating this toolkit, which is a product of the collective work of the study. We hope you will find creative and practical approaches to serving your customers in these pages. The purposes of this toolkit are to ease the learning curve of those new to librarianship and/or transportation; to pull together the collective wisdom of our members on topics that the pooled fund has addressed through its work of connecting and networking transportation libraries; to serve as a living document, updated frequently in print and online; to capture some of the institutional memory that is leaving the DOTs as waves of retirements loom; and to give transportation librarians of varying experience levels and work situations some tools to inspire, enhance and streamline librarians' work as well as library operations to make the transportation library an indispensable resource within the parent organization. Some words from our TAC members:

“Transportation as a discipline is still in its infancy. While other disciplines, such as medicine, agriculture or philosophy, have been around for centuries, the study of the transportation discipline as a serious endeavor is probably barely one century old. The transportation information milieu is one that draws upon many others, including engineering, chemistry, psychology, medicine, ecology, and more. **To succeed in this profession, librarians and information services personnel need the tools and processes to reach a wide variety of resources in quick fashion.** This toolkit will go far in attaining this crucial goal.”

—John Cherney, head librarian, Wisconsin DOT

“**To be a librarian, I believe you must possess three characteristics:** one is that you must be endlessly curious, the second is a deep understanding of complex organization, and the third is the genuine desire to help people.”

—Cheryl Bodan, librarian, Pennsylvania DOT

“**Never send anyone away empty-handed. They won't come back.** We participate in the AASHTO e-mail distribution list so we can ask other DOTs when there is no published information to be found. We use our academic network OhioLINK particularly when we need answers fast, like e-books, academic databases, online reference sources, etc. We call upon our regional (MTKN) and professional networks when there are no holding libraries willing to lend or we need additional ideas for finding answers. And we have a materials budget to back us up when we need to purchase resources necessary to supply our patrons with what they've asked for.”

—Janet Bix, library administrator, Ohio DOT

“This toolkit has been created from the accumulated knowledge and efforts of participants in the pooled fund study in an effort to ease the way for others in developing new transportation library and information services and in strengthening existing programs. There is much work to be done in this field and we hope you find this toolkit of use. Mn/DOT Library, founded in 1957, to serve the employees of the Minnesota Department of Highways, has developed into a facility that attempts to provide library and information services to the state's entire transportation community. The library has partnered with a number of other organizations in both the library and transportation communities to assist in this effort. Transportation partners include the local FHWA office, Minnesota's Local Road Research Board and the University of Minnesota's Center for Transportation Studies as well as the participants in this pooled fund effort. **In addition to serving those in need of library and information services, we make every effort to assist others currently operating similar programs or developing new ones.** Please contact Mn/DOT Library if you believe we can provide any information or assistance with transportation information issues or services. Also, please contact the Technical Advisory Committee with any changes, additions or suggestions you think may improve this toolkit that is always to be considered a work in progress.”

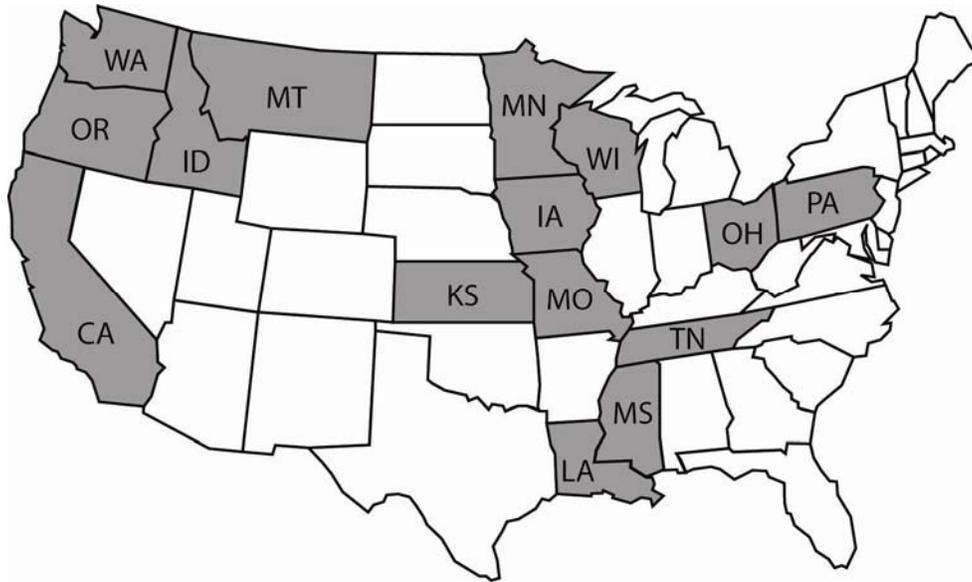
—Jerry Baldwin, library director, Minnesota DOT

“I hope this toolkit will provide guidance to librarians new to the field of transportation. In my almost 40 years in the profession, I have seen so many technological advances in the way we perform our duties that it is hard to envision what the next 40 years will bring. Those advances have made it imperative that librarians continue to keep their skills updated to be able to serve our users. The impact of the Internet on our profession is proving that our skills outweigh Google and other search engines. **We need to continue to search for ways to easily harvest the vast knowledge available to us and provide those elusive bits to our customers.**”

—Ruth Letson, head librarian, Tennessee Department of Transportation

## Introduction—Tools for a Successful Transportation Library

The Transportation Library Connectivity pooled fund study is a collaborative, grass-roots effort by transportation libraries to enhance information accessibility and professional expertise to serve the transportation community. We are a group of 15 state agencies and two universities. Members currently include state DOTs in California, Idaho, Iowa, Kansas, Louisiana, Minnesota, Mississippi, Missouri, Montana, Ohio, Oregon, Pennsylvania, Tennessee, Washington and Wisconsin (lead state), as well as the University Transportation Center at the University of Wisconsin-Madison and the Center for Transportation Studies at the University of Minnesota.



The Transportation Library Connectivity pooled fund study aims to follow the recommendations of TRB Special Report 284, *Transportation Knowledge Networks: A Management Strategy for the 21st Century*,<sup>1</sup> with respect to improving library services and the need for Transportation Knowledge Networks. The report envisions the creation of regional networks connected by a national coordinating body in its first recommendation: “Transportation knowledge networks (TKNs) should be established in every region of the United States and at the federal level.”<sup>2</sup>

The purpose of these networks is to improve library services in the following ways:

- Identification of key information provider and user groups
- Sharing of information and services
- Coordination of collections
- Interlibrary loan
- Sharing of catalogs through TLCat
- Reference services
- Professional capacity building for members<sup>3</sup>

Our pooled fund study focuses on library technical services, outreach and advocacy. Our study partners’ goals are to improve access to resources through networks, promote the value of transportation libraries and raise awareness at all levels of government about the benefits of viable TKNs.

---

<sup>1</sup> At the request of AASHTO’s Standing Committee on Research, TRB conducted a study on how transportation information should be managed and delivered. The resulting report, *Transportation Knowledge Networks: A Management Strategy for the 21st Century* (TRB Special Report 284), makes recommendations for sustainable funding and administrative structures for a national TKN. <http://onlinepubs.trb.org/onlinepubs/sr/sr284.pdf>.

<sup>2</sup> *Transportation Knowledge Networks: A Management Strategy for the 21st Century*, Committee for a Future Strategy for Transportation Information Management, Transportation Research Board of the National Academies, 2006, p. 5. <http://onlinepubs.trb.org/onlinepubs/sr/sr284.pdf>. 5 March 2007.

<sup>3</sup> *Ibid.*, p. 56.

This toolkit is intended as a guide for transportation librarians with varying levels of experience who are challenged with delivering quality information services to their agencies on a modest budget. Delivering the best services possible within budget constraints while lobbying for more resources and justifying the expenditures is a challenge in the transportation sector. Librarians continue to be asked to do more with fewer staff and reduced resources. One of the greatest challenges in this environment is to perform at the highest level possible while not perpetuating the misperception that adequate funding has been achieved.

We developed this guide from the body of work of the Transportation Library Connectivity pooled fund study and other sources we have found to be useful as we explored the benefits of working cooperatively. We realized that this knowledge and experience could be organized and preserved to meet the often-expressed need for a guide to help new and/or solo librarians deliver top-notch information services to their departments. The pooled fund study members include librarians with diverse backgrounds and levels of experience in transportation who have expressed the need for a toolkit for effective transportation information services.

The target audience is any information professional serving the transportation sector, although the guide itself is written from a state DOT library perspective. Whether the librarian is a recent graduate from library school; experienced but new to transportation; or a veteran who would like to enhance his or her services, implement new technologies or supplement staff training, this toolkit aims to provide answers to some of the most challenging aspects of transportation librarianship in the age of downsizing and the myth of the intrinsic value of information found on the Internet.

While this guide is focused on state DOT libraries, there are common threads in services and selection of transportation resources as well as some basic best practices of special librarianship. We hope to provide information and tools that can be tailored to the numerous unique requirements of any transportation library.

Getting started in a transportation library is often described as climbing a steep learning curve for both new and experienced librarians. These librarians bring the tools of their profession and adapt them to a new environment while trying to collect the essential knowledge needed to be conversant in the transportation community.

The Bureau of Transportation Statistics describes the transportation industry as “those establishments or parts of establishments that build transportation facilities and equipment; operate transportation facilities; provide for-hire transportation services for individuals, households, businesses or government agencies; provide supporting in-house transportation for a business or government agency; arrange transportation services for individuals, households, businesses or government agencies; provide supporting services necessary to the provision of transportation services; or administer transportation programs...”<sup>4</sup>

---

<sup>4</sup> Bureau of Transportation Statistics Web site. <http://www.bts.gov/dictionary/list.xml?letter=T>. 18 November 2007.

## I. Deliver Essential Library Services

Many people believe libraries are repositories for collections. But in truth, libraries are places with highly trained staff offering a diverse set of services that may or may not involve the use of a physical collection. Typical library services include reference; literature searching; interlibrary loan and document delivery; creation of bibliographies; e-mail alerts; news clips; and in some libraries, design and maintenance of the library's intranet and Internet sites. Some DOT libraries run their map reproduction services; others manage photo collections. By helping customers get needed information quickly, the library becomes an essential partner in meeting department goals.

### The Big Picture of Library Services

1. Assess the informational requirements of the DOT community on a continuing basis by formal and informal interaction with all other elements of the transportation community.
2. Select from available information those resources most applicable to the requirements of the DOT community.
3. Acquire, organize and arrange these informational resources in a manner and in a physical setting most conducive to their use.
4. Promote a range of informational and educational services to increase library benefits for all members of the DOT community.
5. Provide enhanced informational resources and services by active collaboration with other institutions through interlibrary loan, information networks and cooperative arrangements.
6. Study the operations and services provided by the library to assure effective use of available resources.
7. Present and interpret the library's fiscal and other needs to funders.
8. Provide an environment in which to develop and maintain an informed and capable staff.
9. Anticipate and plan for future developments in the informational needs and services that are likely to affect the DOT community.<sup>5</sup>

### Reference and Literature Searches

Reference and literature searching are two key public services in any library. While it is sometimes difficult to know for statistical purposes what qualifies as a reference question, many agree on the American Research Library definition, which is a guide for collecting reference statistics:

A reference transaction is an information contact that involves the knowledge, use, recommendations, interpretation or instruction in the use of one or more information sources by a member of the library staff. The term includes information and referral service. Information sources include (a) printed and nonprinted material; (b) machine-readable databases (including computer-assisted instruction); (c) the library's own catalogs and other holdings records; (d) other libraries and institutions through communication or referral; and (e) persons both inside and outside the library. When a staff member uses information gained from previous use of information sources to answer a question, the transaction is reported as a reference transaction even if the source is not consulted again. If a contact includes both reference and directional services, it should be reported as one reference transaction. Duration should not be an element in determining whether a transaction is a reference transaction.<sup>6</sup>

A literature search differs from reference transactions in its objectives, depth, duration and the tools consulted. While the goal of a reference transaction is to provide a factual answer to a question, the objective of a literature search is to survey the published articles on a topic and provide customers with a set of bibliographic citations, abstracts or articles from which they can select for further research. Using search alerts or running saved searches helps customers who require the most up-to-date published articles in their specialty. Literature alerts are automated searches that are set up and run on a designated schedule (e.g., daily, weekly, monthly) to scan selected databases that meet the search criteria for new articles. These can be delivered directly to customers' e-mail addresses or to the librarian for editing and packaging prior to distribution. Literature search alerts often allow librarians to use high-end database aggregators like Dialog at a fraction of the cost of normal searching.

---

<sup>5</sup> Adapted from *Library Services in Theory and Context*, Michael Buckland. 2nd ed., 1999. <http://sunsite.berkeley.edu/Literature/Library/Services/>. 12 March 2007.

<sup>6</sup> *ARL Statistics 2004-2005: A Compilation of Statistics from the One Hundred and Twenty-Three Members of the Association of Research Libraries*, 2006, p. 102. <http://www.arl.org/bm~doc/arlstat05.pdf>. 12 March 2007.

### **Internet and Intranet Pages**

Maintaining the library's intranet and extranet pages is an excellent opportunity to promote resources and services to internal and external customers. Depending on an agency's IT rules and time and staff resources, the optimal library Web presence is one that mirrors the physical library. Any service or digital resource available to customers in the library should also be accessible on the library's Web pages. Patrons should be able to access databases and search the library catalog if possible. (The department's Internet security policies or subscription licenses may prevent these options.) Reference services can be transacted by e-mail via the Web page or using the agency's network chat or instant messaging program—a virtual reference desk.

However, there are many impediments to implementing this ideal scenario. For example, the department's Internet security standards may not allow librarians to provide or users to access information beyond the network. The library often contains digital resources housed in its physical space, but not allowable on the library's or department's Web site (Internet, intranet or extranet). These resources include PDF files much too large for customer downloading on the Internet (i.e., 20 MB or more) and self-contained CD databases that include proprietary search and retrieval software (i.e., TRB preprints, ITE digital library on CD-ROM, internal databases). Many of the proprietary search features aren't allowed on DOT Web sites for security reasons. The only way to access them is to check the disks out from the library's physical shelves, or use a library computer that is preloaded with the database.

This would also include very large files in native or raw formats delivered to customers on an FTP site. Though these features are ideal candidates for an extranet site at times, even this environment can be cumbersome. Often, there are databases commonly constructed in Access format (such as internal DOT databases) that are not conveniently deliverable over the Web and are only available by physically checking out the CD-ROMs or using a computer loaded with the database in the library's physical space, much like other proprietary CD-ROM databases mentioned above.

### **Cataloging**

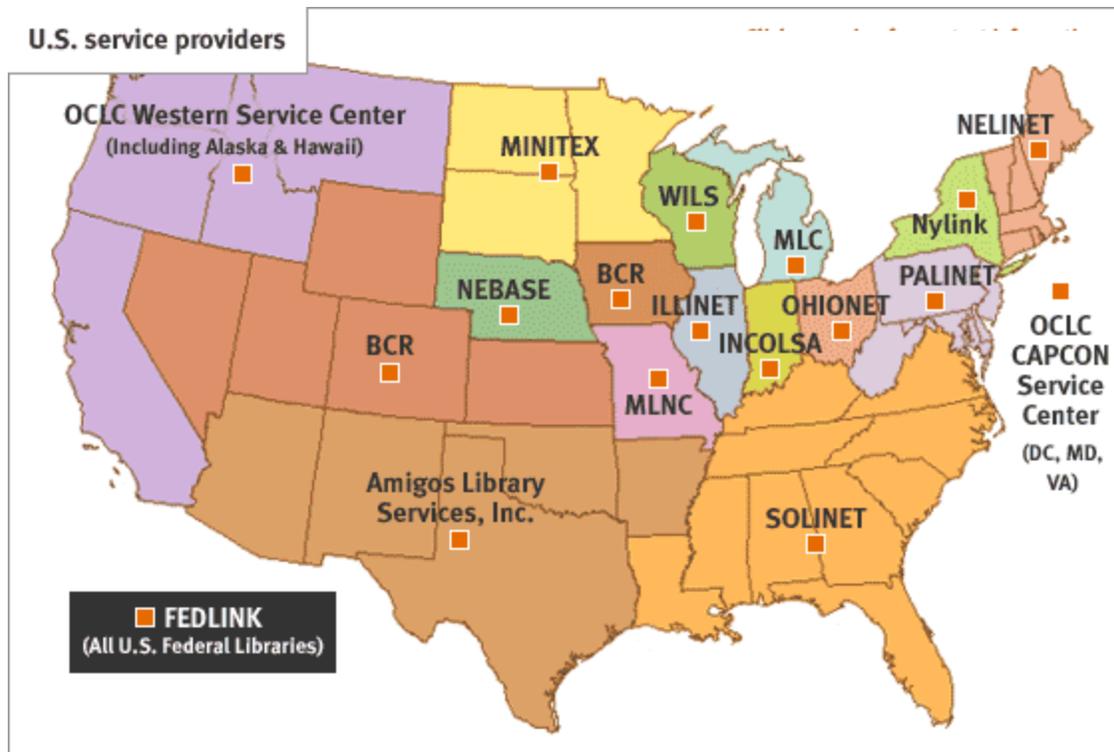
Cataloging is often thought of as purely a technical service, but in fact, it is among the most valuable public services a library can provide. The work of cataloging is invisible to customers, but adherence to high cataloging standards results in maximum access and use of the library's collection. It is what enables librarians and patrons to find print and electronic resources in your library. The pooled fund libraries use a variety of classification schemes in their collections, sometimes more than one. For instance, a library may have the bulk of its collection classified according to Dewey or Library of Congress, but use a sequential date/numbering system for AASHTO publications. In addition to using Dewey or LC subject headings, many transportation libraries also use the Transportation Research Thesaurus for classification. TRT terms are added to the bibliographic record for improved indexing and retrieval of resources in the library's catalog.

The pooled fund recommends that transportation libraries become Online Computer Library Center members and add their holdings to the Transportation Libraries catalog. At present, TLCat offers holdings from 35 transportation libraries. TLCat is a subset of WorldCat, the OCLC union catalog that has more than 60 million bibliographic records and 414 million individual holdings<sup>7</sup>. These resources dramatically improve members' access to resources for sharing and copy cataloging, thus positively impacting the library's materials expenditures and workflow. For a complete list of participating TLCat libraries, see Appendix A.

Machine Readable Cataloging is desirable but not essential to facilitate including a library's holdings in WorldCat and TLCat. For example, if librarians are cataloging with labeled or text fields in catalogs such as InMagic, they can batch-load records into OCLC, which will convert them to OCLC-formatted MARC records. Cataloging with OCLC increases librarians' ability to locate and use bibliographic records for copy cataloging, but original catalog records enrich both the union and group catalogs because much of the value that comes from contributing holdings to TLCat is the uniqueness of individual transportation collections. Becoming a member of OCLC is easy. Most libraries will join through their OCLC Regional Service Providers. These regional library cooperatives are not part of OCLC, with the exception of OCLC Western. In addition to managing OCLC subscriptions, they offer training opportunities and many other subscription resources, often at discounted group rates.

---

<sup>7</sup> OCLC Web site: WorldCat in Your Library. <http://www.oclc.org/worldcat/library/default.htm>. 18 October 2007.



See Appendix B for a Regional Service Provider contact list.

### Interlibrary Loan and Document Delivery

Borrowing items and requesting copies of documents from other libraries increases the breadth of information available to customers. After all, no library can own everything it may need to satisfy customers' requests for information. Borrowing from other libraries usually implies that a library will lend resources or supply copies of documents when requested. Resource sharing networks like OCLC make a vast catalog of resources available and allow libraries to focus their collection development budgets on what they really must have in the library. Libraries Sharing Transportation Resources is an OCLC Group Access Capability group for nonprofit transportation libraries. The LSTR participant agreement is available at <http://www.tfsrc.gov/library/lstr.htm>.

### News Alerts

Industry and agency news alerts are excellent ways to serve library clients. Some clients need to stay abreast of happenings in industries that are related to transportation. Subscribing to RSS feeds such as those offered by BTS, UMTRI and Caltrans allow librarians to push timely information to their customers either by compiling them and sending via e-mail or by helping customers sign up for RSS feeds and showing them how to use RSS feed readers.

### News Clips and Newsletters

Another way libraries can reach out to customers is to keep them informed about information of interest regarding your agency or other topics of interest. Librarians compile related news items from RSS feeds, alerting services and other sources and then e-mail the selected links and attachments to distribution lists at their agencies. News clips are often more frequent (daily, weekly) and contain headlines and links. Newsletters are less frequent (monthly) and contain annotations or abstracts along with links to articles.

### Journals

Circulating journals among staff via routing lists is an easy way for the library to reach out to agency staff members who may not have the time to visit the library but want to keep up with professional publications. Each library has its own way of routing journals. For some it is very informal, with a typed list of names attached to the cover. Each person on the list reviews the journal, then crosses out his name and passes the journal along until it reaches the end of the list, which is the library. Others may choose to use the journal routing function in their Integrated Library System, which is highly recommended because it is a more efficient tracking method.

**Training**

Many of the pooled fund libraries offer training about library resources during new employee orientation and other agency meetings. These can be designed as overviews of the library's resources and services or designed for in-depth training on searching specialized databases for a particular audience. PowerPoint presentations and live library catalog and database searching are commonly used during training and outreach sessions.

## II. Plan an Effective Collection for Your Customers

A useful collection doesn't happen by accident. In today's transportation libraries, just as in academic, public and other special libraries, there is a need for resources that cater to customers' needs, and one of the things they want is electronic information. The current buzzword seems to be "seamless searching," that elusive single interface that allows the researcher to move between library catalogs and between databases with minimal mouse clicks and no perception of the changing resources.

Portals and federated searching are the closest tools we have, yet they are still not truly seamless or reasonably inclusive in most cases. With the strong preference for online resources in mind, a useful collection should include resources of value without regard to format. This is where the librarian's expertise regarding resources intersects with the need to educate the customer in order to serve them. A collection will include print and online reference and monographic sources, serials, databases, aggregators and Web resources. It should contain the materials internal customers require to help them do their jobs effectively. If the library is open to the public, the collection should include agency-produced materials so that the public can access the information financed by their taxes.

The following is a breakdown of a core collection in a DOT library. There are many resources individual transportation librarians find useful in their work. As a practical matter, this discussion is not all-inclusive but includes information about resources that the majority of our study partners find valuable. This guide will be updated during the second phase of the pooled fund study and will likely accommodate new resources as they become known.

For an online guide to transportation resources, visit the WisDOT Research & Library Web site at <http://www.dot.wisconsin.gov/library/research/resources/index.htm>.

See the National Transportation Library Web site for research tools, statistics, dictionaries, information management standards, directories and legislative resources at <http://ntl.bts.gov/tools.html>.

### Reference Collection

A well-rounded reference collection would ideally include the most frequently consulted reference works in the interdisciplinary sciences of transportation as well as some of the more general resources found in any library, such as current dictionaries, encyclopedias, directories, statistics, TRT, atlases and reference works for librarians such as publisher directories and periodical indexes. Legal reference materials, such as state codes and statutes, and management and training materials are other valuable subject areas.

### Monograph Collection

Subject areas for a library's monograph collection include engineering (mechanical, civil); materials; chemistry; modal (auto, aeronautics, pedestrian, bicycle, public transit); roads, bridges, ferries, waterways, freight and rail; weather; geology; geography; environmental; and planning.

### Serials Collection

The pooled fund libraries all maintain fairly extensive serials collections. For reference, a list of core titles used by the Mn/DOT library is given in Appendix C. Yet even with an extensive on-site collection, researchers in the interdisciplinary sciences in transportation have a strong preference for online research<sup>8</sup>. For this reason, electronic subscriptions are recommended wherever possible to meet customers' needs and expectations.

Serials are synonymous with change. Price increases, changes by publishers (titles, subtitles, ISSNs), and vendors' services all make managing online and print subscriptions challenging. Often the print subscription comes with the online version at no additional cost, so there are two formats to manage. The serials module of an ILS or a third-party vendor tool such as Serials Solutions (<http://www.serialssolutions.com/>) or Ebsco's Serials A-to-Z (<http://www2.ebsco.com/en-us/ProductsServices/atoz/Pages/index.aspx>) are recommended to effectively control subscriptions.

---

<sup>8</sup> *Understanding Research Behaviors, Information Resources, and Service Needs of Scientists and Graduate Students: A Study by the University of Minnesota Libraries*, June 2007. <http://www.lib.umn.edu/about/scieval/Sci%20Report%20Final.pdf>. 9 October 2007.

## **Transportation Reports**

State DOT publications are the foundation of a collection of reports, and it's a good idea to set up a system whereby copies of all in-house publications are automatically deposited in the library. Many reports are now born digital, and they often get posted on a department Web site without formal announcement to the library. Setting up a system of searching the Web for new titles to add to a library's catalog may be worthwhile, depending on staff resources and time. Publications from other state DOTs are also important and for reasons of relevance and space, some libraries focus mostly on neighboring states. TRB's complete list of publications, NCHRP, AASHTO and U.S. DOT publications should be included. Most libraries have a small collection of foreign transportation agency reports.

## **Online Resources**

The following is a list of online resources, both proprietary and free to the public, that the pooled fund study librarians find useful in their work. For information on managing online resources, see Chapter IV, "Put Best Practices to Work."

### Free Resources

#### NTL Digital Repository

[http://ntl.bts.gov/about\\_ntl.html](http://ntl.bts.gov/about_ntl.html)

The NTL collection is entirely digital. Electronic resources for the NTL Digital Repository are selected according to the NTL's Collection Policy (see <http://ntl.bts.gov/colldev.html>). The NTL Digital Repository is a permanent archive. It includes primarily statistical, technical, research and policy documents provided by federal, state, local, tribal and other government agencies that are required by researchers and decision-makers.

#### RiP

[http://rip.trb.org/search/advanced\\_search.asp](http://rip.trb.org/search/advanced_search.asp)

TRB's Research in Progress database contains more than 9,500 current or recently completed transportation research projects. Most of the RiP records are projects funded by federal and state DOTs. University transportation research is also included.

#### RNS

<http://rns.trb.org>

TRB's Research Needs Statements database contained some 700 transportation research needs statements at its premiere in October 2007. The new database provides a central location that makes searching and sharing statements easy. Organizations, agencies, universities, students, consultants and others who fund and conduct transportation research can now quickly and confidently identify where the focus of their critical resources is most needed. The database will be updated continuously by TRB's standing committees.

#### Sources of Information in Transportation

<http://ntl.bts.gov/ref/biblio/>

Sources of Information in Transportation is compiled by members of the Transportation Division, Special Libraries Association, and published by U.S. DOT, Bureau of Transportation Statistics, NTL. Many of the pooled fund librarians find the "Highways" section (<http://ntl.bts.gov/ref/biblio/highways/>) quite valuable. Pooled fund librarian Janet Bix, Ohio DOT, is a contributor.

#### TRIS Online

<http://ntlsearch.bts.gov/tris/index.do>

TRIS Online is a public-domain, Web-based version of the Transportation Research Information Services bibliographic database. TRIS Online is published as a collaborative effort by the NTL and TRB. The TRIS Online database contains more than half a million records of published transportation research, including technical reports, books, conference proceedings and journal articles. Currently the database has almost 24,000 TRIS records with links to electronic copies of the full text.

#### TLCat

<http://ntl.bts.gov/cgi-bin/fs.scr>

TLCat is the Transportation Library group catalog, and is a subset of the OCLC WorldCat union catalog. TLCat was created through the joint efforts of NTL, the Midwest Transportation Knowledge Network and OCLC. Currently 36 transportation libraries have their holdings in TLCat. Although the catalog is a paid subscription, anyone can search it through the guest view.

## TRT

<http://trt.trb.org/>

The Transportation Research Thesaurus is a tool developed by TRB to improve the indexing and retrieval of transportation information. The thesaurus covers all modes and aspects of transportation. TRT's continued development aims to provide a common and consistent language between those who produce transportation information and those who use it. Many transportation libraries use the thesaurus terms as further subject analysis in bibliographic records to enhance to the classification scheme they use throughout their collections.

## Google Co-op Custom Search Engines

### Individual States

<http://google.com/coop/cse?cx=016923400724939679832%3Avmv2xow5bug>

Search transportation sites in individual states. An excellent example is the Wisconsin Transportation Information Search. WTIS includes more than 50 transportation sites in Wisconsin, including the DOT site, university sites in Wisconsin, MPO and RPC sites, and nonprofit Wisconsin transportation sites.

### LTAP and TTAP Centers

<http://www.google.com/coop/cse?cx=010809592348763093458%3Ar3i0biypw1u>

Search all 58 LTAP and TTAP Center Web sites.

### Metropolitan Planning Organizations

<http://www.google.com/coop/cse?cx=006511338351663161139%3Aktu1nltiojg>

Search the Web sites of metropolitan planning organizations. Sites included in this search were taken from the AMPO membership list.

### Public Transit Search

<http://www.google.com/coop/cse?cx=012995479145342077058%3Aipxox2lxkha>

Meta search all major transit agency and transit-related organization Web sites for fares, routes, data, reports, research, press releases, budgets, policies, programs and other transit industry information.

### State DOTs

<http://www.google.com/coop/cse?cx=006511338351663161139%3Acnk1qdck0dc>

Search the DOT Web sites of the 50 states and the District of Columbia. The search engine has received more than 100,000 queries since December 2006.

### U.S. State Public Utilities Commissions

<http://www.google.com/coop/cse?cx=004890854172713559008%3A3vjc7enw1du>

Search the Web sites of public utilities commissions in all 50 states, plus the National Association of Regulatory Utility Commissioners.

### UTCs

<http://www.google.com/coop/cse?cx=010809592348763093458:3jsikrwi874>

Search for transportation research located on university transportation center Web sites, including the U.S. DOT Research & Innovative Technology Administration's University Transportation Center program and the Council of University Transportation Centers.

## Google Scholar

[http://scholar.google.com/advanced\\_scholar\\_search?hl=en&lr=](http://scholar.google.com/advanced_scholar_search?hl=en&lr=)

Google Scholar provides a simple way to search for scholarly literature on the Web. It provides simple and advanced searching options to locate peer-reviewed papers, books, citations, abstracts, articles and theses. Google Scholar sorts articles the way researchers do—by weighing the full text of each article, the author, the publication that printed the article and the number of citations in other scholarly literature. The most relevant results will always appear on the first page.

## Open Access

Open access is a trend that is gaining momentum in scholarly publishing. OA provides immediate, free and unrestricted online access to peer-reviewed research articles in scholarly journals. There are two main currents in the OA movement:

1. **OA self-archiving:** Authors publish in a subscription journal, but in addition make their articles freely accessible online, usually by depositing them in an institutional or central repository. This can be as postprints or as non-peer-reviewed preprints.
2. **OA publishing:** Authors publish in OA journals that make their articles freely accessible online immediately upon publication.<sup>9</sup>

Directory of Open Access Journals

<http://www.doaj.org/>

The DOAJ covers free, full-text, quality-controlled scientific and scholarly journals. Although a limited number of transportation titles are available at this time, there are several in the interdisciplinary areas, such as materials and engineering, that make this is a resource worth consulting.

## Subscription Databases

There are some subscription databases that transportation librarians consider essential to the provision of the most complete and timely information services to their customers. The following list is not comprehensive, but is representative of databases in use in many of the pooled fund libraries:

American Society of Civil Engineering Online Research Library

<http://www.ascelibrary.org/>

The research library includes ASCE conference proceedings beginning in 1998, and all 30 ASCE journal and periodical volumes published since 1995. Technical and professional interest areas include transportation, materials, structural, engineering mechanics, geotechnical, infrastructure, urban planning, computing in civil engineering and professional issues. The ASCE journal archive goes back to 1993. This full-text database contains more than 24,000 journal and 8,700 proceedings papers.

Compendex

<http://www.ei.org>

Compendex is a comprehensive interdisciplinary literature database for engineers. It is a vital resource for current awareness, new product information and technological forecasting. The database has more than 9 million records from more than 5,000 scholarly journals, trade magazines and conference proceedings.

Dialog

<http://www.dialog.com/products/productline/dialog.shtml>

More than 600 databases are available through Dialog, including comprehensive, global coverage of chemicals, computer science, energy and environment, and mechanical and civil engineering. Dialog can be very cost-effective if searches are run through the alerting service.

DialogSelect Open Access

<http://www.dialog.com/products/openaccess/>

An alternative to subscription service, Open Access has no passwords, monthly fees or minimum charges. All that is needed is a credit card to receive instant access to the power of Dialog through DialogSelect. Relevant subjects available through Open Access include business and news, chemistry, engineering, environment and government.

Elsevier E-Select

<http://www.ebsco.com/e-select/>

Specifically designed for institutions with small print journal collections, E-Select E-journals provide individual online-title access to more than 1,300 titles searchable on the ScienceDirect platform.

---

<sup>9</sup> Open Access Overview, Peter Suber. June 19, 2007. <http://www.earlham.edu/~peters/fos/overview.htm>. 3 January 2008.

#### Elsevier SCOPUS

<http://info.scopus.com/overview/what/>

Scopus is the largest abstract and citation database with more than 15,000 peer-reviewed titles from more than 4,000 international publishers, including coverage of OA journals, conference proceedings, trade publications, books, abstracts and references. Scopus also covers 250 million quality Web sources, including 12.7 million patents.

#### Engineering Village

<http://www.engineeringvillage2.org/controller/servlet/Controller>

Engineering Village is a Web-based database designed to meet the information needs of the engineering community. It has powerful search tools and an intuitive user interface. Engineering Village provides access to several important engineering databases such as Compendex, NTIS, Inspec and Engineering Index Backfile through one single interface. Useful features include alerts and RSS feeds, links to full text using CrossRef, and links to document delivery services.

#### IngentaConnect

<http://www.ingentaconnect.com>

IngentaConnect.com is Ingenta's flagship online Web service, providing the most comprehensive collection of academic and professional publications online. It allows users to register and manage online journal subscriptions and receive seamless access, where available, to full-text electronic articles. There are more than 10,000 online titles; and 20,000 fax and Ariel-delivered titles; and more than 20 million articles. Users can link at the title or article level, making the experience seamless within the library Web site or OPAC.

#### McGraw-Hill Digital Engineering Library

<http://www.digitalengineeringlibrary.com/index.asp>

The McGraw-Hill Engineering Library has more than 185 titles in aerospace engineering, bioengineering, chemical engineering, civil engineering, construction and architectural engineering, electrical engineering, engineering math and science, environmental engineering, industrial engineering, materials science and engineering, and mechanical engineering.

#### TRANSPORT on Ovid/Silverplatter

<http://www.ovid.com/site/catalog/DataBase/157.jsp?top=2&mid=3&bottom=7&subsection=10>

TRANSPORT consists of two component bibliographic databases produced by the world's leading transportation research organizations: the International Transport Research Documentation and the Transportation Research Information Services database produced by the TRB. Together, the databases feature published research in transportation systems and their components: highways, construction, traffic, transport, road safety, intermodal transport, environmental effects of transport, transport economics, transport policy and social sciences of transportation.

### III. Make the Most of Your Space

The pooled fund libraries vary widely in their physical spaces, but all make the most of the space they have. Lack of square footage should not deter librarians from envisioning and creating an efficient library environment. Using compact shelving and eliminating cubicle walls can be very effective in maximizing available space. Each library has individual needs, and there is no one-size-fits-all solution.

#### Space Planning

Library space planning isn't just preparation for new facilities or relocation. It is an ongoing process of evaluating space needs against availability. Library managers often have to prove their requests for additional space are legitimate and necessary, and frequently have to defend their turf against other departments' encroachment.

Below are guidelines for preparing a space-needs assessment:

- **Collection survey:** Collections should be measured by counting the number of ranges, sections and shelves and then listing them by collection categories represented in the number of shelves per collection (e.g., reference, bound journals, current periodicals, reports, etc.). These measurements should be based on actual space in use, not the capacity of the shelving. A realistic growth factor should be used to project shelving needs for each collection. Collection usage statistics are useful here to make the case for keeping or tossing hard copies. The projected shelving needs should then be converted to a square-footage requirement.<sup>10</sup>
- **Measurements:** When working with facilities personnel, it is important to use linear feet to measure shelving as that is the unit of measurement library space planners use. Also, two square footage measurements are needed to determine overall footprint related to library furniture, shelving and equipment: the actual square footage that the item (i.e., shelving unit) occupies in terms of floor space, or the actual footprint; and the square footage the item will need to function properly. For shelving and other library space functional areas, the extra square footage of floor space needed involves accounting for Americans with Disabilities Act requirements at a minimum, along with general comfort of the library user, such as an aisle wide enough for browsing, or for a reading table, enough room for chairs to be pulled out and not in the way of other functions of the library.
- **Staff requirements:** A list that reflects agency workstation standards (e.g., professional staff is assigned to a 6-foot by 6-foot workstation; however this may not be practical or desirable in all libraries) must be created. Some exceptions will exist, such as catalogers who need more space to perform their work, and these should be identified and explained. The number of staff should reflect current head count with room to grow. At least one additional work space should be available for contract or temporary workers.<sup>11</sup>
- **Functional areas:** This category includes areas such as technical services, copy machines, microfiche readers, collaboration areas and PC workstations for patron use.<sup>12</sup>

For a sample floor plan, see Appendix D or visit <http://www.dot.state.mn.us/library/libfloorplan.html>.

#### Rethinking the Transportation Library: The WisDOT iCommons

WisDOT has embarked on a research project to integrate an information commons, or iCommons, into the library. The iCommons is part of WisDOT's effort to serve its customers the best quality library and information services possible. It offers research, library and communication services in addition to virtual services that allow remote users to access the library's services and resources. The iCommons is a space for transportation professionals to collaborate and access the latest in transportation research in a comfortable environment with access to new technologies.

While the iCommons concept is not new to academic and public libraries, it is new for a government agency transportation library. The WisDOT library is partnering with WisDOT's Research Program and the University of Wisconsin-Madison in a two-year study to evaluate the iCommons concept for the agency. Previously located on the eighth floor of WisDOT's central office building, the library now can be found on the ground level, just off the main lobby entrance to the building. The new space includes accessible stacks that encourage browsing, user-friendly computer workstations, and collaborative work and meeting spaces. "We want to be a physical and digital resource

---

<sup>10</sup> Finnerty, Chuck. *Library Space Planning in the Electronic Era: Are the Stacks Necessary?* *Information Outlook*, 6(8), August 2002, p. 6-13. <http://www.sla.org/content/memberonly/infoonline/2002/aug02/finnerty.cfm>. 6 April 2007.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

for WisDOT staff in Madison and throughout the state as well as for Wisconsin researchers, students, consultants and the general public,” says head librarian John Cherney.

Home to one of the largest collections of transportation-related information in the country, the iCommons offers easy access to the latest published research materials, periodicals and computer/Internet resources along with transportation videos, DVDs and CDs.

Photos of the transformation of the library into the new WisDOT iCommons can be found at <http://units.sla.org/chapter/cwi/album/index.html>.

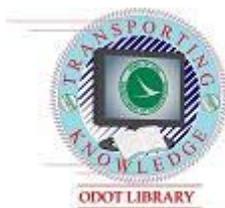
## IV. Put Best Practices to Work

There are best practices for practically every aspect of librarianship. There are policies and procedures that make our work manageable. We will touch upon a few that are common to most of the pooled fund libraries and DOT libraries. Sharing best practices in library networks is one of the greatest benefits of membership because it raises and equalizes standards among member libraries and eliminates the need to reinvent the wheel. Pooled fund member libraries have learned a great deal from one another by sharing best practices, further proof that libraries work better when they work together.

### Mission Statement

Special libraries need mission statements to communicate their purpose to the individuals in management who may not be familiar with the library and its services. This is vital for transportation libraries, which have been severely undervalued historically. Compared with other major sectors of the economy, such as agriculture and health—both of which have national libraries and networks—the transportation sector devotes relatively few resources to library and information services.<sup>13</sup> *Special Report 284* points out that “the services offered by librarians are frequently not known, particularly at the DOT leadership level.”<sup>14</sup> A clear mission statement, when supported by effective outreach and high-quality, value-added information services, is one of the ways to protect the library from being considered for downsizing.

Library management continually re-evaluates priorities to meet customers’ needs and managers’ expectations. What are the *actual* goals of the organization and how cost-effective is it to achieve them? The mission statement should communicate a library’s goals concisely, inform others of its purpose and communicate the library’s priorities to staff. An excellent example is this mission statement from the Ohio DOT library:



### ODOT Library Mission Statement

Our mission is to serve the people of the Ohio Department of Transportation by providing pertinent and appropriate information necessary for personal, professional and organizational growth.

Each employee can request customized service, tailored to their needs with information provided in their choice of format whenever possible.

We are dedicated to creating and maintaining an electronic information system that provides for the acquisition, processing and delivery of information effectively and efficiently, accessible to all ODOT employees. At the same time, we will maintain professional networks that provide access to additional unique information. We will continue to build the physical library collection so that it can continue to increase in value, visibility and provide the backbone of the information network.

### Budgeting

Most of the pooled fund libraries do not have a budget of their own. Their expenditures are part of their departmental budgets, often the research unit. However, whether or not staff is asked to develop a budget for the library or simply pay as expenses arise until told otherwise, tracking is critical so that expenditures can be justified, if necessary. A simple spreadsheet with a basic sum formula is an easy way to monitor your expenses and have a detailed report at hand.

---

<sup>13</sup> *Special Report 284*, p. 3.

<sup>14</sup> *Ibid.*

About 50 percent to 70 percent of a library's costs are staff salaries and benefits. The next largest expenditure is materials and subscriptions (the collection). A general rule of thumb is to spend at least as much as was spent the year before, if possible. If librarians underspend, they run the risk of losing available budget dollars as senior managers could infer that the library does not need the funding. Again, this is where monitoring comes in very handy.

### **Policies**

Interlibrary loan, document delivery, borrowing and circulation are some areas where having written policies are helpful. Written policies help both staff and customers eliminate confusion, and keep operations running smoothly. For example, most libraries do not charge for ILL and document delivery, although some do. Individual libraries must decide whether they will impose fees on borrowers. ILL policies are especially useful to transportation libraries that have unique or historical information not suitable for lending. Lending periods and materials that do or do not circulate should be clearly understood. For a sample ILL and circulation policy, see Appendix E.

### **Copyright**

There is a lot of confusion about copyright, and for good reason—it's very complicated. Many state government libraries believe copyright is not an issue for most of the materials in their collections, as "government information is taxpayer-funded, and as such, is not subject to copyright." While it is true that federal government-produced information is not subject to copyright law, many states do copyright some or all of their documents. The use or reproduction of these documents should be clarified with the producing agency. Transportation libraries also have materials and online resources produced by commercial publishers and are protected by copyright law, as outlined in the U.S. Code. In state DOTs and other nonprofit libraries, the use of copyrighted materials for research is covered by the Fair Use section, Title 17, of the U.S. Code, known as Fair Use (17USC§ 108):

#### **Limitations on exclusive rights: Reproduction by libraries and archives**

Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use, the factors to be considered shall include:

1. the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
2. the nature of the copyrighted work;
3. the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
4. the effect of the use upon the potential market for or value of the copyrighted work.

The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.<sup>15</sup>

This explanation includes some outdated terminology, such as "phonorecordings." The copyright laws have been driven by technology for more than two centuries; Title 17 was written prior to the development and use of the digital technology we use to publish, transmit and communicate information today. The Digital Millennium Copyright Act of 1998 addressed areas that older laws would cover as new technology emerges. The entirety of the DMCA potentially affects library operations as it covers everything from transitory communications, system caching, information storage on systems or networks at direction of users, and information location tools. Section 404 of the DMCA amends the exemptions in 108USC for nonprofit libraries to allow digital preservation:

---

<sup>15</sup> United States Code, 2000 ed., supplement 4. <http://www.gpoaccess.gov/uscode/index.html>. 24 October 2007.

## Exemption for Nonprofit Libraries and Archives

Section 404 of the DMCA amends the exemption for nonprofit libraries and archives in section 108 of the Copyright Act to accommodate digital technologies and evolving preservation practices. Prior to enactment of the DMCA, section 108 permitted such libraries and archives to make a single facsimile (i.e., not digital) copy of a work for purposes of preservation or interlibrary loan. As amended, section 108 permits up to three copies, which may be digital, provided that digital copies are not made available to the public outside the library premises. In addition, the amended section permits such a library or archive to copy a work into a new format if the original format becomes obsolete—that is, the machine or device used to render the work perceptible is no longer manufactured or is no longer reasonably available in the commercial marketplace.<sup>16</sup>

Section 405 is also of potential interest to libraries as it amends the Digital Performance Right in Sound Recordings Act of 1995 to allow Webcasting, specifically streaming audio. Some new exemptions appeared in 2006, such as Ebooks for the visually impaired and making video clip compilations for specific classroom instruction, and making backup copies of obsolete software.<sup>17</sup> Reapplication for these exemptions must occur every three years. Interestingly, in 2006 the Copyright Office passed on allowing an exemption for “space shifting”—moving legally obtained digital material from one device to another, like from a CD to an iPod.

What does all this mean to the library? Libraries must comply with the provisions of the copyright laws that pertain to them and must inform their patrons of the restrictions regarding fair use. Posting the copyright law in its brief form on or above copy machines is the most common practice in libraries. Here is a sample text for making a sign:

### Warning concerning copyright restrictions

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material.

Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be “used for any purpose other than private study, scholarship, or research.” If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of “fair use,” that user may be liable for copyright infringement.

This department reserves the right to refuse to accept a copying order if, in its judgment, fulfillment of the order would involve violation of Copyright Law.<sup>18</sup>

### Selecting an ILS

During their tenure, some librarians will have the opportunity to instate an integrated library system or migrate from one ILS to another. This is a great opportunity to dramatically improve the operations and work flow of the library. It is also one of the most challenging processes a librarian may encounter. The steps below are an abbreviated version of the process. They are meant to serve as a guide to get librarians started in the right direction. Links and resources have been provided both here and in the bibliography for further research. Preparation is the key; librarians are encouraged to do their homework when choosing a vendor, and then let the vendor guide them through the preparation and transfer of a database as well as the implementation of the new ILS. Remember that while many of the popular systems can meet the needs of a state DOT library, open source is becoming a part of the library software landscape.<sup>19</sup> Koha is an open source ILS from a new company called LibLime. The pooled fund libraries are using various ILSs. See Appendix F for a list with links to their OPACs.

<sup>16</sup> Digital Millennium Copyright Act of 1998. <http://www.copyright.gov/legislation/dmca.pdf>. 21 October 2007.

<sup>17</sup> Rulemaking on Exemptions from Prohibition on Circumvention of Technological Measures that Control Access to Copyrighted Works. November 27, 2006. <http://www.copyright.gov/1201/>. 23 October 2007.

<sup>18</sup> Adapted from UCLA Copyright Policy. <http://www2.library.ucla.edu/copyright/2135.cfm>. 22 October 2007.

<sup>19</sup> An Industry Redefined: Private equity moves into the ILS, and open source support emerges, by Marshall Breeding. Library Journal, April 1, 2007. <http://www.libraryjournal.com/article/CA6429251.html>. 21 October 2007.

These steps will help guide libraries in selecting an ILS:

1. Do your research. Do a literature search for articles on ILSs and special libraries; put out a call for feedback from users on listservs; search the Web; talk to vendors if you are at a conference. From research, you can formulate the questions you should ask vendors and current users.
2. Create a needs assessment. Decide what features are essential and what are nice extras. Interview library staff such as catalogers, circulation clerks and reference librarians. What do they need in an ILS to perform their jobs effectively? Essential features are likely to be cataloging, circulation and acquisitions modules. RSS feeds, resource linking and federated searching are useful extras if they are available.
3. Make a short list of vendors that offer products that meet your criteria.
4. Call the vendors and ask tough questions about anything you see lacking in the product. Pay particular attention to the libraries the vendors highlight as success stories. How do those institutions compare to yours in terms of need, collection, staff, etc.?
5. Gather system specifications for the products on your short list.
6. If your department requires it, send out a Request for Proposal, which lays out the specific needs the library has for an ILS and invites vendors to submit proposals describing how they would meet your needs. RFPs are frequently part of the bid process in government agencies. Your agency may have a form for writing RFPs; if not, search the Web for sample library ILS RFPs.
7. Visit other libraries that already use the systems on your short list and ask them how they like them. These site visits can be very enlightening. Users will tell you about bugs as well as the good features of the product.
8. Invite vendors to come to your library to demonstrate their products and answer questions.

The Library Technology Guides blog is a good resource for information about library automation. It has no affiliation with any library automation company. It is also a great source of current developments in library technology. See <http://www.librarytechnology.org/>.

### **Collection Development**

Collection development is the selection and acquisition of library materials in all formats that will best serve a library's current customer needs. It also involves some forecasting as trends emerge or change. Like a road map, a collection development policy will help you stay on track with your collection development goals. It doesn't need to be overly elaborate or lengthy for smaller collections with well-defined customers.

The mission and priorities of the agency are the most important factors of collection development in transportation libraries. Collection development is a continuous process that requires policy revision from time to time based on changes in customers and their needs. For example, do new graduates use the library differently? What are the research habits of the scientific community served? Is there a new government in place with different priorities? According to a study recently published by the University of Minnesota libraries, "Scientists are generally comfortable with a wide array of technological tools and demand access to online resources—journal articles, reports, conference proceedings, data sets and more. Online resources are now seen as indispensable to effective research, especially for collaborative research and fieldwork."<sup>20</sup> Regarding students, online resources are also strongly favored, and in some cases, used exclusively.<sup>21</sup> New graduates in the interdisciplinary sciences of transportation are bringing this bias to the DOT, and the demand for online research tools is only going to grow. These electronic resources will figure prominently in the library's collection development. For a sample collection development policy, see Appendix G.

---

<sup>20</sup> Understanding Research Behaviors, Information Resources, and Service Needs of Scientists and Graduate Students: A Study by the University of Minnesota Libraries. June 2007. p. 9. <http://www.lib.umn.edu/about/scieval/Sci%20Report%20Final.pdf>. 19 October 2007.

<sup>21</sup> Understanding Research Behaviors, p. 22. <http://www.lib.umn.edu/about/scieval/Sci%20Report%20Final.pdf>. 23 October 2007.

## Managing Electronic Resources

Managing electronic resources entails three major considerations (aside from recurrent costs; in this context we are assuming the library is past the point of purchase):

- Licensing—the library has not purchased the content of the database or aggregator, only access to it. Even though the vendor or publisher licenses may look daunting and full of legal absolutes, they can often be modified at the librarian's request. If the terms of the license are unclear, the host agency's in-house legal office can help. If needed, the license can be amended to satisfy the library's needs and then submitted to the vendor for approval. Vendors are often willing to bend on one or more of the terms.
- Authentication—Vendors offer two forms of authentication: identification and password, or IP. Sometimes libraries will have a choice, sometimes not. Some multiuser licenses are very costly and the library can only purchase a single use license, which designates the library as the user and customers must use the online resource in the library. If a sitewide or multiuser license is in effect, libraries can easily obtain the IP range of their network from their IT department. The standard setup is quite simple and the vendor tech support can walk you through it if you have problems.
- Troubleshooting—Invariably, as with everything electronic in the library, technical difficulties with the online resources will arise. If other Internet resources are accessible, the problem may be on the vendor's end. Vendors usually let customers know of downtimes and problems via e-mail. If the library and vendor networks appear fine, passwords may be invalid or IP addresses incorrect. If all else fails, bring in your IT people!

## Performance Measures

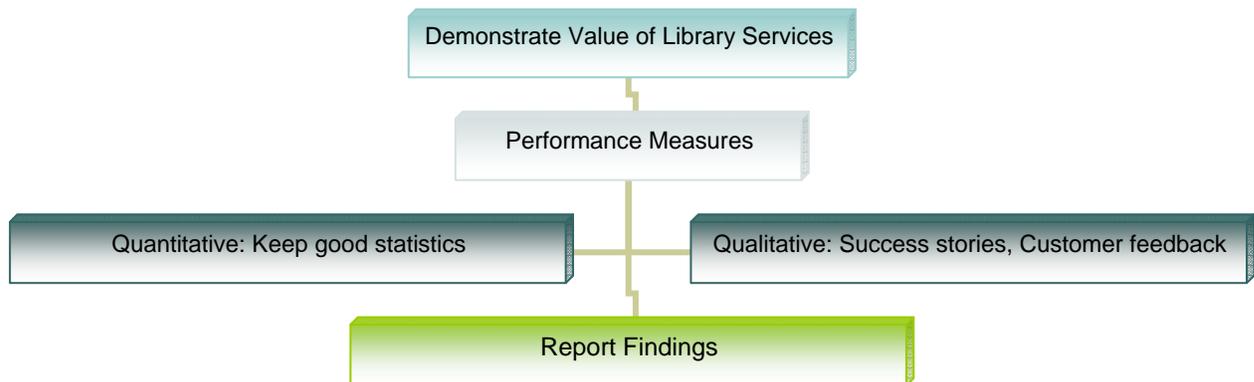
### What to Measure and Why

Performance measurement allows librarians to gather data and draw conclusions about the overall success or impact of library services. Tracking activities of the library will provide data for senior management (CEOs, decision-makers, managers, etc.) to have a clearer picture of the daily functioning of the library, its impact on the agency and the value of library services.

Librarians should approach performance measurement as though they are reporting to people who rarely use the library and don't understand that it is a vital unit within their agency, as this is frequently the case. To present a clear picture of the library as a busy unit supporting the agency's mission statement and the professionals whose work they *do* understand, librarians have to keep good statistics of the work we do. That is the quantitative component of the performance measurement task. There is a qualitative component, too, and using customer feedback or "success stories" has a real impact on senior managers. Library services don't lend themselves to scientific measurements, but we can make assumptions based on solid facts. We use what we know factually and from experience to extrapolate certain conclusions.

The facets of performance measurement:

- Quantitative—recording statistics, outputs
- Qualitative—success stories, letters of appreciation, return on investment calculations



### Quantitative Data

Many ILSs will track materials checked out, new items added to the database and ILL/document delivery activity. Librarians can create reports that are presented clearly, often with charts and graphs from these ILS modules. Many libraries track reference, literature searches and ILL statistics in Excel, which is available almost universally in any Microsoft Office environment. The pooled fund study has created a statistical tracking tool to record transactions quickly and easily. (See Appendix H.) There is no need to purchase additional software to accomplish accurate and well-presented statistical reports. Excel also has a fairly versatile charting and graphing function. It is a good idea to pick out some data sets and represent them graphically for both impact and visual interest.

### Qualitative Data

#### *Success Stories*

According to our pooled fund librarians, customer testimonials have tremendous impact on senior management, and several librarians save customer testimonials for use in reporting. Here are some examples:

*An engineer at Mn/DOT appeared at the library reference desk after spending two hours searching the Internet for the BTU energy content of various fuels. The librarian was able to procure that information within two minutes from a table listed on the U.S. Energy Department's Web site.*

*An internal customer at WisDOT was about to solicit a Request for Proposal on a \$50,000 project to determine the demerit point/administrative license withdrawal system used by other states. The library not only had the NHTSA-related study on the shelf but was able to deliver it to the general counsel's office within 15 minutes of receiving the request.*

#### *Customer Surveys*

Several of the pooled fund libraries have conducted surveys of their customers to determine factors such as awareness of library services, satisfaction with services and areas that need improvement. Iowa DOT library has developed a survey using Survey Monkey, a cost-effective Web-based survey tool, that is a good example of a library customer survey. (See Appendix I.)

#### *Return on Investment*

Qualitative data is also important when demonstrating the ROI of library services to senior managers. Several studies claim that libraries return at least four to six times the investment.<sup>22</sup> Recent Outsell research shows that

<sup>22</sup> International Federation of Library Associations and Institutions, Alexandria Manifesto on the Information Society in Action, October 2006. <http://www.ifla.org/IIIF/wsis/AlexandriaManifesto.html>. 25 June 2007.

government libraries topped the time-saved metric with an average of 12.2 hours saved per transaction.<sup>23</sup> Government end-users were also in the lead for reliance on their libraries for decision support.<sup>24</sup> Jerry Baldwin (Mn/DOT) has developed an ROI formula that many people have adapted for their own use that demonstrates reduced costs and added-value ratios. (See Appendix J.)

### Reporting

Statistics, expenditures, ROI and success stories should all be part of the reports to management. Reporting informs the decision-makers of the role of the library within the organization and allows library staff members to step back and review their progress. A good rule of thumb for reports is to include the mission statement up front, to inform the reader of the library's purpose and follow with statistics and narrative illustrating how the mission was fulfilled and what factors may have interfered with the library's objectives. The report should also include a summary of customer populations (percentage of civil engineering staff, planning, research), which parts of the collection get the most use, most frequently used services and the results of a customer survey.

---

<sup>23</sup> "ROI for Libraries Remains High," Roger Strouse, Outsell Inc. August 29, 2007. <http://www.outsellinc.com/store/insights/3538>. 1 December 2007.

<sup>24</sup> Ibid.

## V. Market Your Services Creatively

Marketing library services is limited only by the staff's imagination. Our pooled fund members have exchanged some creative ideas to reach out to customers and raise awareness and communicate the value of their libraries to the senior managers in their organizations such as:

- Presentation at new employee orientations
- Creation of folios
- Mobile new materials cart
- Customized takeaways: bookmarks, rulers, notepads and pens
- News clips
- Stories in department newsletter

### **Knowing the Library's Audience**

Identifying the library's users is critical to the services, resources and best practices discussed in this guide. The vast majority of transportation libraries are within government agencies. As administrations change, so do priorities. Regardless of administration, most DOT library customers are research managers, senior-level managers, CEOs, elected officials and their staff, agency employees, consultants and the public. Library users in private industry are primarily an internal customer base of staff and consultants, while university transportation center libraries support faculty and student researchers.

### **Establishing a Library Committee**

A library advocacy committee is often beneficial. It should include representatives with influence from various divisions within the organization. The library committee can create plans for increasing awareness of the library, its services and its collections. It can assist librarians in developing general and targeted presentations for meetings and events, and make the librarian aware of opportunities within different units to promote library services, including training, reference, literature searches, alerts and synthesis reports.

The Research and Library Advisory Committee at WisDOT has been focusing on issues such as strategic planning for the library and making sure the activities are aligned with the overall mission, vision and strategic plan of the entire organization. Other RLAC activities include getting buy-in and direction from top management for broad library activities, such as topical research and collection development focus, and targeting user groups to survey.

### **Developing Library Marketing Collateral**

The pooled fund libraries have created a lot of useful and creative internal marketing collateral. Useful objects such as pens, pencils, bookmarks, notepads, rulers and magnifying cards branded with the library logo are popular giveaways. Washington State DOT develops and maintains a folio collection with important departmental information, and hands out magnifying rulers with the librarians' business cards in the sleeve. The pooled fund has also designed customizable marketing collateral for National Library Week.

## VI. Network, Network, Network

Professional organizations and conferences are vital for those who work in small libraries. Solo librarians often staff transportation libraries. Getting involved with national, state and local consortia or networks can open up a network of colleagues to learn from and exchange ideas with, ensuring that the library's methods and practices do not develop in a vacuum. Library consortia exist on regional, state and local levels. Membership in one or more of these organizations as well as volunteering for a committee offers great benefits for both cost savings and professional networking.

Membership in regional, state and local library networks offers substantial cost savings on subscription resources like OCLC products and services, and a wide array of databases. These networks are also the best place to turn to for training and professional development classes, often for a very reasonable fee. Library consortia may also offer technical support for the products they offer or will liaise with the vendor on a library's behalf. Regular meetings at local consortia often feature speakers or highlight new technologies to keep professionals current.

Find your state library at <http://lists.webjunction.org/libweb/usa-state.html>, and your regional, state and local library consortia at <http://lists.webjunction.org/libweb/usa-consortia.html>.

### Professional Organizations and Resources

Special Libraries Association

<http://www.sla.org/>

SLA is an international association representing the interests of thousands of information professionals from more than 80 countries worldwide. Founded in 1909 in New York state, SLA defines special librarians as "information resource experts who collect, analyze, evaluate, package and disseminate information to facilitate accurate decision-making in corporate, academic, and government settings." The SLA annual conference is a fantastic place to network and learn about new technologies in the information services field.

SLA Transportation Division

<http://www.library.northwestern.edu/transportation/slatran/index.html>

SLA's Transportation Division is celebrating its 65th birthday in 2008. More than 200 librarians from universities; corporations; and regional, state, provincial and national government organizations make up the Transportation Division. International in scope and interests, the division promotes the exchange of knowledge and information among members interested in the development and use of information resources in transportation in general or in one of its many subdivisions, including air, highway, rail, urban and water transport, and multimodal transportation. The division publishes a quarterly newsletter, maintains a listserv and organizes programs for the SLA annual conference.

SLA Solo Librarians Division

<http://units.sla.org/division/dsol/>

SLA's Solo Librarians Division provides a forum to share ideas, problems and solutions unique to the solo librarian.

NTL

<http://ntl.bts.gov/>

NTL offers many resources and services to transportation libraries and is actively involved in establishing and sustaining regional TKNs. It is the administrator of TLCat and TRIS Online.

Transportation Librarians Roundtable

<http://ntl.bts.gov/networking/roundtable.html>

NTL hosts monthly Web conferences with featured speakers from the transportation library and information community. TLR provides opportunities for transportation librarians to learn more about issues of mutual concern and interest, and to have a new means of regular communication among members of that community.

Eastern Transportation Knowledge Network

<http://colab.cim3.net/cgi-bin/wiki.pl?EasternTransportationKnowledgeNetwork>

The Eastern Transportation Knowledge Network is a newly forming network that will be open to all interested transportation libraries or organizations interested in transportation information in the Eastern states.

#### Midwest Transportation Knowledge Network

<http://www.mtkn.org/index.htm>

MTKN was founded in 2001 as a network of state DOT and academic transportation libraries in the Midwest. Sponsored by NTL, the network is a forum to pool resources and share expertise and best practices while serving as a model for a national TKN.

#### Western Transportation Knowledge Network

[http://www.ctcandassociates.com/lpfblog/?page\\_id=225](http://www.ctcandassociates.com/lpfblog/?page_id=225)

The Western Transportation Knowledge Network is currently under development. Membership is open to any transportation library or entity interested in transportation information in the Western states.

#### Transportation Library Connectivity Pooled Fund Study

<http://www.libraryconnectivity.org/>

The pooled fund is moving into its second phase and welcomes new members. It can assist any transportation library with information about getting started with OCLC subscriptions, regional TKNs, TLCat, best practices, etc.

#### TRB Library and Information Science for Transportation Committee

<http://trblist.tamu.edu/>

TRB's Library and Information Science for Transportation committee serves as a forum for transportation librarians and the transportation research community about developments in information science and their applicability to transportation. The committee facilitates diffusion of national library and information science innovations throughout the transportation community by monitoring the use of new resources and tools in the transportation arena, defining critical research and training issues related to their implementation, and promoting the benefits of these capabilities.

#### AASHTO Special Task Group on TKNs

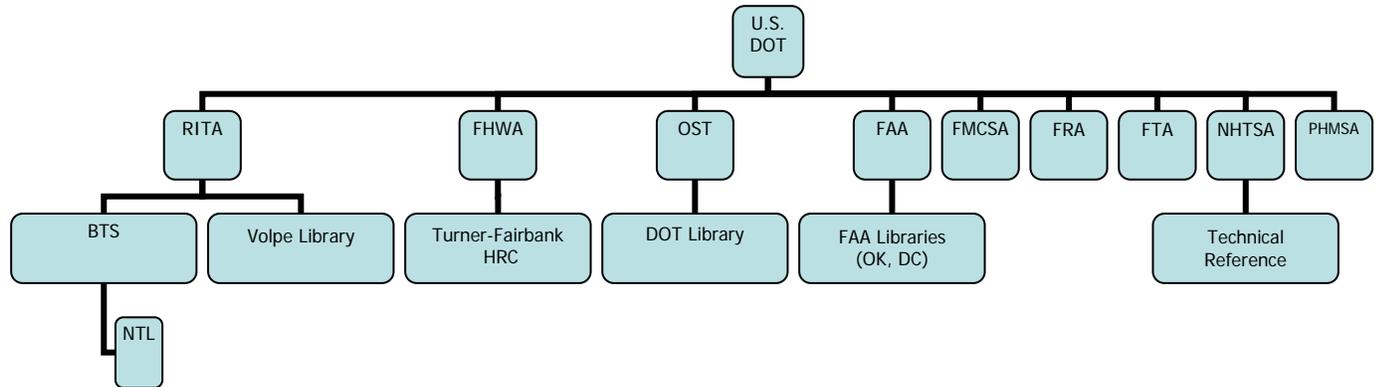
This newly formed special task group is under the auspices of AASHTO RAC. AASHTO's SCOR and RAC realize the importance of providing access to current information which is critical for researchers and practitioners to use in addressing the needs of our agencies. The special task group is in its initial stages of formation at the time of this publication.

## VII. Learn the Lay of the Land

Learning all of the state and federal departments, offices, agencies, nonprofits and acronyms and how they are related can be daunting to people who are new to the transportation industry. This section is by no means comprehensive, but will give new staff members a good start in acclimating to their new professional environment.

### Federal Transportation Agencies and Organizations

The diagram below shows the hierarchical relationship between administrations in U.S. DOT that interact most frequently with transportation librarians. Brief descriptions of some of the primary offices and agencies within U.S. DOT also are listed.



#### U.S. DOT

<http://www.dot.gov/>

U.S. DOT employs almost 60,000 people in agencies, offices and bureaus across the country (see <http://www.dot.gov/DOTagencies.htm> for a list of agencies). Some of these organizations house transportation libraries. Key agencies include:

FAA	Federal Aviation Administration (FAA libraries in Oklahoma and the District of Columbia)
FHWA	Federal Highway Administration (includes the Turner-Fairbank Highway Research Center)
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
NHTSA	National Highway Traffic Safety Administration (a Technical Reference Center)
OIG	Office of Inspector General
OST	Office of Secretary of Transportation (where the U.S. DOT library resides)
RITA	Research and Innovative Technology Administration (includes the Volpe National Transportation Systems Center)
STB	Surface Transportation Board

#### Research and Innovative Technology Administration

[http://www.rita.dot.gov/about\\_rita/](http://www.rita.dot.gov/about_rita/)

RITA coordinates U.S. DOT's research programs and is charged with "advancing the deployment of cross-cutting technologies" to improve the nation's transportation system. RITA is composed of BTS, Volpe National Transportation Systems Center, Transportation Safety Institute and the Office of Intermodalism.

#### Bureau of Transportation Statistics

<http://www.bts.gov/about/>

BTS was established as a statistical agency in 1992 to administer data collection, analysis and reporting and to ensure the most cost-effective use of transportation-monitoring resources. BTS is part of RITA and administers the NTL in cooperation with its federal, state and local partners.

National Transportation Library

<http://ntl.bts.gov/>

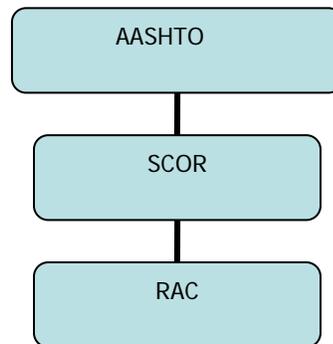
Charged with improving the availability of transportation-related information needed by federal, state and local decision-makers, NTL's mission is to increase timely access to the information that supports transportation policy, research, operations and technology transfer activities. NTL was established in 1998 through the Transportation Equity Act for the 21st Century. NTL activities include network leadership; creation and provision of technology and tools for access; electronic document collection for preservation and access; a digital repository; reference and referral services; and the establishment of metadata and document exchange standards.

Federal Highway Administration

<http://www.fhwa.dot.gov/>

FHWA carries out the federal highway programs in partnership with state and local agencies to meet the nation's transportation needs. FHWA adds value to the delivery of the federal highway programs by administering and overseeing these programs to ensure that federal funds are used efficiently. In administering these funds, FHWA applies flexible and innovative financing techniques permissible under the law, such as pooled funds. FHWA advances the state of the art in transportation by working cooperatively with governmental agencies, industry and research community partners to research, develop, test and implement the latest proven technological advancements, including intelligent transportation systems.

### Nonprofit and Nonpartisan Organizations



AASHTO

<http://www.transportation.org/>

The American Association of State Highway and Transportation Officials is a nonprofit, nonpartisan association representing highway and transportation departments in the 50 states, the District of Columbia and Puerto Rico. It represents all five transportation modes: air, highways, public transportation, rail and water. AASHTO's primary goal is to foster the development, operation and maintenance of an integrated national transportation system.

SCOR

<http://research.transportation.org/?siteid=55&pageid=853>

The Standing Committee on Research makes reports and recommendations on the National Cooperative Highway Research Program and other activities to the AASHTO board of directors. In its capacity to study and foster transportation research, SCOR is engaged in many activities, including working with AASHTO committees and subcommittees to identify research needs, define research areas and utilize research finding; solicit problem statements from member departments and FHWA; monitor TRB's performance as program manager for NCHRP as well as monitor NCHRP; and coordinate highway and other transportation research.

RAC

<http://research.transportation.org/?siteid=55&pageid=863>

AASHTO created the Research Advisory Committee to facilitate SCOR's work. RAC's functions include participating in establishing the NCHRP and rating problem statements, working with member departments to facilitate development of research problem statements, maintaining an overview of state-related highway and other federally funded transportation research and providing advice on transportation research matters to SCOR and the AASHTO executive and policy committees.

## AASHTO Regions



### **TRB**

<http://www.trb.org/>

TRB is a division of the National Research Council, which serves as an independent adviser to the federal government and others on scientific and technical questions of national importance. TRB conducts its work through the work of its standing committees and task forces addressing all modes and aspects of transportation; publication and dissemination of reports and peer-reviewed technical papers on research findings; management of cooperative research and other research programs; administration of special studies on transportation policy issues at the request of the U.S. Congress and government agencies; operation of an online computerized file of transportation research information; and hosting an annual meeting that typically attracts 10,000 transportation professionals from throughout the United States and abroad.

### **Directory of Transportation Libraries**

<http://ntl.bts.gov/tldir/>

This is the eighth edition of BTS's directory and is the first edition on the Web. Entries can be searched or browsed, and libraries outside North America now are included. BTS does not claim to have a complete listing of transportation libraries, but it is a place to start while the NCHRP 20-75 project is under way (described below). Entries provide address and contact information, collection size and scope, and links to library Web pages, where available.

### **Directory of State Highway and Transportation Department Libraries**

<http://www.dot.state.mn.us/library/dotlist.html>

This is a list compiled by the Mn/DOT library of state DOT libraries and contacts, plus the TRB and AASHTO libraries.

### **TRB Special Report 284**

*Transportation Knowledge Networks: A Management Strategy for the 21st Century*

<http://onlinepubs.trb.org/onlinepubs/sr/sr284.pdf>

Known simply as SR 284, this TRB special report was presented at the TRB annual meeting in January 2006. Concerned about library downsizing and closures as well as increased demand for information services utilizing new technologies, SCOR requested that TRB re-examine how transportation information should be managed and provided. The TRB study committee developed this report, which provides strategic advice to the federal government and the states on core information services needs along with a sustainable administrative structure and funding mechanism to meet the defined needs.

## **NCHRP 20-75**

*Transportation Knowledge Networks: Shaping the Future of Transportation Information Access*  
<http://www.cts.umn.edu/Research/Featured/NCHRP20-75/>

In response to recommendations of SR 284, Project 20-75 is developing a business plan for TKNs. The formation of TKNs is intended to improve access and information sharing using new institutional arrangements and current technology. The business plan is in development as this toolkit is being published. The research team (Spy Pond Partners and the Center for Transportation Studies) states:

“The business plan seeks to be sufficiently compelling to gain champions for TKNs across all modes and functions of the national transportation enterprise—especially policymakers and decision-makers for the information user and information provider communities in the myriad federal, state, local, university, association and private sector stakeholders and service providers—resulting in long-term commitments of legislative, funding and staffing support for TKNs.”<sup>25</sup>

An interim report is expected in late 2007. When the project concludes in April 2008, the team will produce a finalized business plan and a comprehensive directory of transportation libraries in all sectors.

### **Transportation Abbreviations and Acronyms**

<http://www.bts.gov/dictionary/index.xml>

Both seasoned transportation librarians and those new to the field often comment on the proliferation of abbreviations and acronyms in transportation. The BTS online Dictionary of Transportation Acronyms includes more than 6,000 terms and acronyms related to transportation.

---

<sup>25</sup> *Transportation Knowledge Networks: Shaping the Future of Transportation Information Access.*  
<http://www.cts.umn.edu/Research/Featured/NCHRP20-75/>. 27 June 2007.

## **Conclusion: The Road Ahead**

Historically, transportation libraries have faced challenges of funding, staff and resources within their organizations. Nowhere has this been more apparent than in state DOT libraries. However, the tide is turning. The need for a network of transportation libraries similar to those seen in other major economic sectors, such as agriculture and medicine, was expressed more than 30 years ago. In recent years, these early proponents of networks have seen the development of two regional TKNs, TLCat, the pooled fund study, Special Report 284, NCHRP 20-75 and an expanding role for NTL. All of these efforts are complementary pieces of the national TKN puzzle. The end result, we hope, will be vital TKNs in each region of the country linked together with a sustainable administrative and funding structure at the national level. The benefits to state DOT libraries will be tremendous. The collective experience and resources—many of them unique to their departments—will be available to all. Cooperative collection development will allow libraries to focus their budgets more precisely toward their customers' information needs. Funding to offset OCLC and other subscription costs will expand access to resources. This is indeed an exciting time to be a transportation librarian.

Special Report 284 concludes that “the single most important factor in the success of the proposed transportation information management system will be leadership. In looking to the future, the committee hopes that the leadership of the community of librarians and information professionals will step forward, as they have in the past, to see that a long-overdue institutional structure and sustained funding are put in place to serve the information needs of the transportation sector well into the 21st century.”

As these efforts progress, we need to remain viable within our organizations. The Transportation Library Connectivity pooled fund study members hope that the ideas and recommendations found in this guide will help other transportation libraries develop, enhance and expand their services in creative and innovative ways.

## **Appendices**

Please note that sample policies and tools are intended to help librarians design and formulate tools and policies that serve their own library's and management's needs. Although some of the details may not fit individual library situations, we hope that these samples will help to get librarians started or enhance their current efforts.

### **Appendix A**

TLCat Libraries

### **Appendix B**

OCLC Regional Service Providers

### **Appendix C**

Core Journal Collection (Mn/DOT Library)

### **Appendix D**

Sample Library Floor Plan (Mn/DOT Library)

### **Appendix E**

Sample ILL Policy (Washington State DOT Library)

### **Appendix F**

Pooled Fund Libraries' ILS/OPACs

### **Appendix G**

Sample Collection Development Policy (Mn/DOT Library)

### **Appendix H**

Pooled Fund Statistical Tracking Tool

### **Appendix I**

Library User Survey (Iowa DOT)

### **Appendix J**

Return on Investment Formula (Jerry Baldwin, Mn/DOT)

## Appendix A—TLCat Libraries

Summary for TLCat as of September 30, 2007

- 703,765 bibs are held by group members
- 1,031,667 holdings were counted for all members

<b>Symbol</b>	<b>Institution</b>	<b>Holdings</b>	<b>Unique-in-list</b>	<b>Unique-in-WCat</b>
CBT	Univ of California, Berkeley ITS HED Library	241,566	158,070	120,542
VYM	US Merchant Marine Academy	137,387	126,705	1,207
U2T	Univ of Michigan, Transportation Research Institute	111,833	101,410	94,570
JCR	Northwester University Transportation Library	111,233	58,560	24,054
GIKBM	Geophysical Institute of International Arctic Res	38,861	34,717	1,587
TRS	U.S. DOT, Volpe Transportation Systems Center	34,793	9,443	525
CRD	Los Angeles County MTA	31,415	15,114	8,353
WOY	Wisconsin DOT	26,977	9,092	2,767
TDG	Virginia DOT/VTRC	26,846	5,465	607
OHDOT	Ohio DOT	24,997	4,553	905
TLB	Massachusetts DOT	22,048	5,390	1,261
AKDOT	Alaska DOT	20,953	895	288
WDT	Washington State DOT	19,654	6,804	2,157
MDT	Minnesota DOT	18,713	4,962	2,133
EEV	Michigan DOT	17,105	6,915	4,400
TPO	Transportation Research Board TRB	14,889	2,099	371
UIG	Iowa DOT	14,410	3,268	732
SDDOT	South Dakota DOT	14,318	2,022	754
CDT	California DOT	14,178	3,232	750
RHT	Connecticut DOT	13,384	4,492	745
DMY	Montana DOT	13,033	1,390	172
NY2	New York DOT	11,150	826	19
OUR	US FAA Aeronautical Center	10,355	7,379	39
IZA	Illinois DOT	8,864	1,804	124
FHATR	US DOT FHWA Technical Reference Center	8,273	1,784	352
KSDOT	Kansas DOT	6,513	956	255
OUT	US FAA CAMI	5,578	4,198	18
MODOT	Missouri DOT	4,349	70	2
OTT	Oregon DOT	4,049	763	47
FAA	US FAA Tech Center	3,796	2,344	217
NC6	Nebraska Department of Roads	145	58	0
P3T	Pennsylvania DOT	1	1	0
NATTR	National Transportation Library NTL	1	0	0

## Appendix B—OCLC Regional Service Providers

<b>Name</b>	<b>Region</b>	<b>Web Site</b>	<b>Contact</b>
Amigos Library Services	AZ, AR, NM, OK, TX	<a href="http://www.amigos.org">www.amigos.org</a>	1-800-843-8482
BCR (Bibliographic Center for Research)	CO, IA, KS, NV, UT, WY	<a href="http://www.bcr.org">www.bcr.org</a>	1-800-397-1552
INCOLSA	IN	<a href="http://www.incolsa.net">www.incolsa.net</a>	1-800-733-1899
ILLNET	IL	<a href="http://www.cyberdriveillinois.com/departments/library/who_we_are/OCLC/home.html">www.cyberdriveillinois.com/departments/library/who_we_are/OCLC/home.html</a>	1-800-665-5576
MINITEX Library Information Network	MN, ND, SD	<a href="http://www.minitex.umn.edu">www.minitex.umn.edu</a>	1-800-462-5348
MLC (Michigan Library Consortium)	MI	<a href="http://www.mlcnet.org">www.mlcnet.org</a>	1-800-530-9019
MLNC (Missouri Library Consortium)	MO	<a href="http://www.mlnc.org">www.mlnc.org</a>	1-800-969-6562
NEBASE	Nebraska	<a href="http://www.nlc.state.ne.us/netserv/nebase/nebserv.html">www.nlc.state.ne.us/netserv/nebase/nebserv.html</a>	1-800-307-2665
NELINET	CT, ME, MA, NH, RI, VT	<a href="http://www.nelinet.net">www.nelinet.net</a>	1-800-NELINET
Nylink	NY	<a href="http://www.nylink.org">www.nylink.org</a>	1-800-342-3353
OCLC Western	AK, CA, HI, ID, MT, OR, WA	<a href="http://www.oclc.org/western/">www.oclc.org/western/</a>	1-800-854-5753
OHIONET	OH, WV, Western PA	<a href="http://www.ohionet.org">www.ohionet.org</a>	1-800-686-8975
PALINET	DE, MD, NJ, PA	<a href="http://www.palinet.org/">www.palinet.org/</a>	1-800-233-3401
SOLINET	AL, FL, GA, KY, LA, MS, NC, SC, TN, VA, Caribbean	<a href="http://www.solinet.net/">www.solinet.net/</a>	1-800-999-8558
WiLS	WI	<a href="http://www.wils.wisc.edu/">www.wils.wisc.edu/</a>	1-608-263-5051
FEDLINK	U.S. Federal Libraries	<a href="http://www.loc.gov/flicc/">www.loc.gov/flicc/</a>	1-202-707-4800

For an interactive map with regional service provider contacts, visit OCLC's Web site at <http://www.oclc.org/contacts/regional/>.

## **Appendix C—Sample Core Journal Collection (Mn/DOT Library)**

AASHTO Journal. Weekly Transportation Report  
Access: Research at the University of California Transportation Center  
ACI Materials Journal  
ACI Structural Journal  
ACRP Report (Airport Cooperative Research Program)  
ACSM Bulletin  
Advanced Imaging  
Appraisal Journal  
APWA Reporter  
ASCE International Journal of Geomechanics  
ASCE Journal of Bridge Engineering  
ASCE Journal of Composites For Construction  
ASCE Journal of Computing in Civil Engineering  
ASCE Journal of Construction Engineering and Management  
ASCE Journal of Engineering Mechanics  
ASCE Journal of Environmental Engineering  
ASCE Journal of Geotechnical & Geoenvironmental Engineering  
ASCE Journal of Hydraulic Engineering  
ASCE Journal of Hydrologic Engineering  
ASCE Journal of Infrastructure Systems  
ASCE Journal of Irrigation and Drainage Engineering  
ASCE Journal of Management in Engineering  
ASCE Journal of Materials in Civil Engineering  
ASCE Journal of Performance of Constructed Facilities  
ASCE Journal of Professional Issues in Engineering Education & Practice  
ASCE Journal of Structural Engineering  
ASCE Journal of Surveying Engineering  
ASCE Journal of Transportation Engineering  
ASCE Journal of Urban Planning and Development  
ASCE Leadership and Management in Engineering  
ASCE Natural Hazards Review  
ASCE Practice Periodical on Hazardous, Toxic and Radioactive Waste Management  
ASCE Practice Periodical on Structural Design & Construction  
ASCE Water Resources Planning and Management Journal  
ASCE Waterway, Port, Coastal, and Ocean Engineering Journal  
Asphalt  
Aviation Week and Space Technology  
Better Roads  
Bicycling  
Bridge Design and Engineering  
Bus Transit Systems Newsletter  
Civil Engineering  
Commercial Carrier Journal  
Computers  
Concrete Construction  
Concrete International  
Concrete Pavement Progress  
Concrete Pipe News  
Corrosion  
ENR

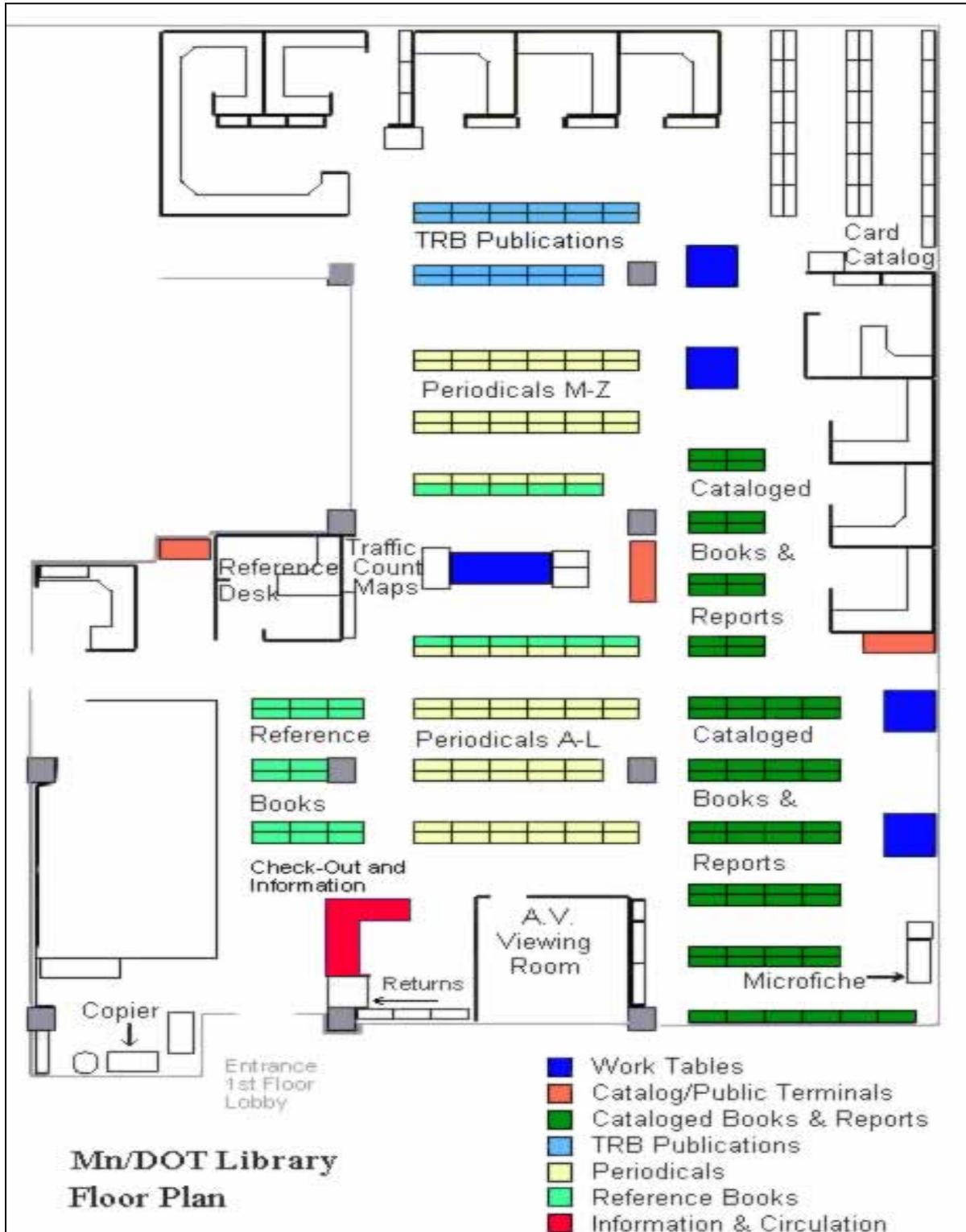
Environment  
Environmental Science and Technology  
Federal Register  
General Aviation News  
Geo World  
Geomatica  
Geosynthetics  
Governing  
Government and Regulation  
Government Executive  
GPS World  
Ground Engineering  
Growth and Change  
Heavy Duty Trucking  
Highway and Vehicle Safety Report  
Highway Builder  
Highway Focus  
Highways and Highway Engineering  
HMAT Hot Mix Asphalt Technology  
HPC Bridge Views  
IATSS Research: International Association of Traffic and Safety Science  
Ignition: News From TRB's IDEA Programs  
In Transit  
Innovation Briefs  
Inside ITS  
Intercity Rail Passenger Systems Update  
Intersection Decision Support E-News  
ITE Journal  
ITS International  
Journal for Quality and Participation  
Journal of Advanced Transportation  
Journal of Protective Coatings & Linings  
Journal of Public Transportation  
Journal of the Air & Waste Management Association  
Journal of the American Planning Association  
Journal of the Transportation Research Forum  
Journal of Transportation and Statistics  
Journal of Transportation Law, Logistics and Policy  
Land and Water  
Land Management/Appraisal  
Landscape Architecture  
LRT News  
Mass Transit  
Materials Performance  
Metro  
Modern Steel Construction  
NCHRP IDEA Annual Progress Report (PDF)  
NCHRP Legal Research Digest  
NCHRP Progress Report  
NCHRP Quarterly Progress Reports  
NCHRP Report  
NCHRP Research Results Digest  
NCHRP Summary of Progress

NCHRP Synthesis of Highway Practice  
Newline: Current Research in Public Transportation  
Nordic Road & Transport Research  
Passenger Transport  
Pipeline and Gas Journal  
Pipelines  
Planning  
Planning Magazine: Journal of the American Planning Association  
Policy Studies Journal  
Politics and Policy  
Pollution Engineering Online  
Professional Safety  
Progressive Railroading  
Public Administration Review  
Public Manager  
Public Roads  
Public Works  
Public Works Management and Policy  
Quality Management  
Quality Progress  
Railway Age  
Railway Gazette International  
Railway Track and Structures  
Railways  
Research and Technology Transporter  
Review of Policy Research  
Right of Way  
Roads and Bridges  
Routes/Roads  
Safety  
Signs of the Times  
Status Report: Insurance Institute for Highway Safety  
Stone, Sand & Gravel Review  
Surveying and Land Information Science  
Surveying and Photogrammetry  
TCRP Annual Report of Progress  
TCRP Legal Research Digest  
TCRP Report  
TCRP Research Results Digest  
TCRP Synthesis  
Texas Transportation Researcher  
Thinking Highways  
Traffic Engineering  
Traffic Engineering and Control  
Traffic Safety  
Traffic Technology International  
Traffic World: The Logistics News Weekly  
TranScan  
Transit  
Transport Topics  
Transportation  
Transportation Journal  
Transportation Management + Engineering

Transportation Research Board Special Report  
Transportation Research Circular  
Transportation Research News  
Transportation Research Record  
Transportation Research: Part A-Policy and Practice  
Transportation Research: Part B-Methodological  
Transportation Research: Part C-Emerging Technologies  
Transportation Research: Part D-Transport and Environment  
Transportation Research: Part E-Logistics and Transportation Review  
Transportation Research: Part F-Traffic Psychology and Behavior  
Transportation Science  
Trenchless Technology  
Trend Letter  
TRL News  
TRL Research Alert  
Trucks and Trucking  
Tunneling  
Tunnels and Tunneling International  
UMTRI Research Review: University of Michigan Transportation Research Institute  
Urban Transport News  
Urban Transportation Monitor  
Waterways Journal  
Work Boat  
World Highways

**Appendix D—Sample Library Floor Plan (Mn/DOT Library)**

<http://www.dot.state.mn.us/library/libfloorplan.html>



## Appendix E—Sample ILL Policy (Washington State DOT Library)

In both interlibrary loaning and interlibrary borrowing transactions, the WSDOT Library will follow the National Interlibrary Loan Code.<sup>26</sup>

### Interlibrary Loans

We will honor interlibrary loan requests from other transportation libraries, federal nonprofit libraries, publicly funded libraries in Washington State, and libraries in other countries on a case-by-case basis. We do NOT loan directly to individuals—this would include businesses, private firms (attorneys, consultants), organizations, local government agencies, etc. We will lend circulating materials in the library collection. The librarian reserves the right to grant or deny any request based on her discretion.

- **Circulation Period:** All loans are due 6 weeks from their shipping date. One 3-week renewal is available upon request.
- **Photocopies:** We will photocopy journal articles, conference proceeding papers, sections of monographs, book chapters, etc., within copyright guidelines. We may deny large photocopying jobs if they exceed 30 pages.
- **Charges:** We do not charge reciprocal libraries or LVIS group libraries for interlibrary loans. Charges for non-reciprocal libraries are \$15.00 for loans, and \$10.00 for photocopies (up to 50 pgs.).
- **Recalls:** Items will be recalled if requested by a WSDOT employee.
- **Shipping Policy:** Materials are generally shipped First Class. We usually do not ship materials Library Rate. UPS and Federal Express shipping may be used if billed to requesting library's account number.

### Interlibrary Borrowing

If we don't have a requested book, report, document or article, we can usually borrow it from another library or document delivery vendor.

We will borrow materials on behalf of WSDOT employees and WSDOT contractors/consultants.

Whenever possible, we will attempt to borrow from libraries which do not charge for loans. However, if the WSDOT Library is charged for loan of materials or copies of articles, then the employee's office will be responsible for those charges.

---

<sup>26</sup> Interlibrary Loan Code for the United States. American Library Association, 2001.  
<http://www.ala.org/ala/rusa/rusaprotocols/referenceguide/interlibrary.cfm>. 24 October 2007.

## Appendix F—Pooled Fund Libraries’ ILS/OPACs

Caltrans Library  
SydneyPlus for MS-SQL (intranet only)

Idaho Transportation Department Library  
ProCite (in-house use only)

Iowa DOT Library  
Iowa State Library Catalog—SirsiDynix  
<http://catalog.lib.state.ia.us/ipac20/ipac.jsp?session=112YW45A49265.2992&profile=statelib&menu=search&submenu=advanced&ts=1127845756015>

Kansas DOT Library  
Electronic Library Catalog (intranet only)  
KDOT Research Reports Catalog:  
<http://www.ksdot.org/burmatres/kdotlib2.asp>

Louisiana DOT/LTRC Library  
This library is just getting established and does not have a catalog at this time.

Minnesota DOT Library  
Ex Libris’ ALEPH 500  
<http://mdt.mnpals.net>

Mississippi DOT Library  
This library does not have a catalog at this time.

Missouri DOT Library  
Innovative Interfaces Inc. Millennium  
<http://arthur.missouri.edu/search~S7>

Montana DOT Library:  
SirsiDynix—WORKFLOWS/I-BISTRO is the OPAC.  
Montana Shared Catalog:  
<http://mtscprod.msl.mt.gov/uhtbin/cgiirsi/cWNJQJB3HD/MT-DOT/104800447/60/1180/X>

Midwest Regional University Transportation Center  
MRUTC does not have a library. They use in-house and external databases to search for raw data.

Ohio DOT Library  
State Library of Ohio Catalog—Innovative Interfaces (III) INNOPAC  
<http://slonet.state.oh.us/>

Oregon DOT Library  
EOS.Web Express  
<http://69.63.217.28/O10019Staff/OPAC/index.asp>

Pennsylvania DOT Library  
Currently on GLAS; migrating to SirsiDynix (intranet only)

Tennessee DOT Library  
SydneyPlus Oracle (intranet only)

University of Minnesota Center for Transportation Studies  
Ex Libris’ ALEPH 500  
<http://mdt.mnpals.net>

Washington State DOT Library  
Washington State Library catalog—III Millennium  
<http://www.secstate.wa.gov/library/catalog.aspx>

Wisconsin DOT Library  
InMagic DB Textworks (intranet only)  
WisCat statewide union catalog—Autographics  
<http://www.wiscat.net/agent/SearchPages.asp?myses=2810270&w=A&cuid=stwi&cusrvr=damia&s=LD>

## Appendix G—Sample Collection Development Policy (Mn/DOT Library)

### Mn/DOT Library Collection Development Policy April 2006

#### Background

Mn/DOT Library had a materials and services budget of approximately \$90,000 for FY05. The largest portion of this, \$63,000, was spent on periodical subscriptions, with the remainder spent on other formats. The library currently includes collections of information resources in the following formats:

Books and “hard copy” reports	18,000 titles (28,000 volumes)
Reports on microfiche	35,000 titles
Periodicals	350 active titles (700 total)
Audio tapes	300 cassettes
Video tapes	1,000 titles
CD-ROM and DVD	300 titles
Vertical File	18 linear feet (newspaper clippings, pamphlets, brochures, and articles on various subjects of current interest to the department)

Since one of the roles of the library is to provide Mn/DOT staff access to a broad range of information needed to monitor developments and trends potentially affecting the department, acquisition or retention of any particular item does not constitute an endorsement of any concepts or opinions advanced by or expressed in the publication.

Items for inclusion in library collections are selected from resources acquired through purchase, received via controlled distribution lists (i.e., TRB, AASHTO, FHWA publications, etc.), and donations to the library. Because of the changing needs of the department and the rapidity with which many kinds of information resources become outdated, the library discards almost as many items as it acquires. Each year, over 1,000 books and reports and more than 100 linear feet of periodicals are removed from the collections.

As the largest expenditure and the basis for our routing system, periodicals receive particularly close monitoring in acquisition decisions. Titles are continuously added and dropped from our subscription lists as new issues and periodicals emerge, and others are no longer of interest. During the last four years, we have added approximately 50 titles, and dropped approximately 35 from our subscription lists.

Decisions regarding the acquisition and retention of specific materials are made by the library staff in response to, or in anticipation of, explicit and/or implicit needs of Mn/DOT staff. Materials are acquired and discarded with an eye towards developing a strong, up-to-date collection of reference and research materials in the field of transportation and other subjects of current interest to the department. At the discretion of the library director, the library also retains resources which provide retrospective information on the activities of the department, the U. S. Department of Transportation, the American Association of State Highway and Transportation Officials, the Transportation Research Board, and other organizations.

The library does not act as a purchasing agent for the department. However, at the discretion of library staff, and within budget constraints, single purchases of a particular item costing no more than twenty dollars may be made for the convenience of the person or office requesting the item. Purchase of other materials for the exclusive use of an individual or unit within the department will be handled by the office requiring the resource. At the discretion of the library director, and within budget constraints, materials for the use of several units within the department may be purchased and retained by the library.

In order to reduce the department's overall costs for subscriptions to serial and periodical publications, the library maintains and operates a periodical routing service. Publications for the routing service are selected and retained in the same manner as other materials covered by this policy. Users of the routing service are periodically surveyed to ensure that materials routed remain consistent with their changing information needs. Within budget constraints, the library purchases sufficient copies of a subscription to ensure that no more than ten individuals are on the routing list for a single copy of any subscription. Subscriptions to publications no longer in demand on the routing service may be cancelled at the discretion of the library director.

See attached library policy statement for further details.

**Mn/DOT Library  
Collection Development Plan  
July 2001**

Policy Statement

The library will develop a collection of print, audio/visual, and electronic information resources in order to provide state employees and the general public with convenient and efficient access to transportation-related information. In addition, resources will be collected to support current activities in other fields of interest to the department.

The collection is intended to serve primarily the reference and research needs of the department's engineering, management, planning, and other professional personnel.

Primary consideration for additions to the collection will be given to resources in the following areas:

- Transportation engineering
- Transportation planning
- Transportation management
- Transportation research
- Transportation construction
- Transportation safety
- Mn/DOT publications
- TRB publications
- AASHTO publications

Secondary areas for consideration include:

- Civil engineering
- Materials engineering
- Surveying and mapping
- Regional, city, and land use planning
- Public administration

Resources in the following areas, along with others of interest to the department, will also be considered for addition to the collection in support of current department activities:

- Business and finance
- Management
- Human resources
- Computers and data processing
- Training
- Office administration
- Communications
- Laws and regulations

### Selection Criteria

In selecting any given resource for inclusion in the collections of the library, the following criteria will be considered:

- Explicit or implicit need for access to the information by department personnel
- Cost
- Relationship of the item to the existing collections
- Availability of similar information within other state agency collections
- Availability of the resource by loan from other collections

### Retention Guidelines

Mn/DOT publications	Permanent retention
TRB publications	Permanent retention
AASHTO publications	Permanent retention
U.S. Government depository publications	Retention will be in accordance with depository regulations
Periodicals	Retention will vary by title from one month to permanent in accordance with department needs and provisions of U.S. Copyright Law and American Library Association interlibrary loan guidelines
All other materials	Retention will be reviewed periodically using the same criteria as for selection of resources for inclusion in the collections

## Appendix H—Pooled Fund Statistical Tracking Tool

**Note:** Please advance the counter by clicking the up-arrow under each category. Most inquiries will require advancing more than one counter. For instance, a request for an article would often result in advancing one of the "citation" counters and one of the "articles" counters.

After you have finished advancing the counters, click on "File" then "Exit" then "Yes" to save changes.

**Ready Reference**  
(15 min. or less)

0



**In-depth Reference**  
(More than 15 min.)

0



**Complete Citation**

0



**Incomplete Citation**

0



**Articles Internal**

0



**Articles External**

0



**Web Sites Located**

0



**Literature Search**

0



### Subject of Literature Search

Aviation

0



Maritime/Waterways

0



Economics & Finance

0



Operations & Traffic Control

0



Energy & Environment

0



Pedestrians & Bicycles

0



Freight

0



Planning & Policy

0



Geographic Information Svcs.

0



Public Transportation

0



Highway/Road

0



References & Directories

0



ITS

0



Safety & Security

0



Laws & Regulations

0

**Explanations:**

**Ready Reference** means any question not involving general directions (Where is the bathroom?, etc.) or library policy (How long do you check books out for?, etc.) that can be answered using 15 minutes or less of your time.

**In-depth Reference** means any question which requires more than 15 minutes of your time to provide an answer.

**Complete Citation** is used for any request for an article or publication for which the customer supplies enough bibliographic information to identify a source (our collection or ILL) without a search for more detailed information.

**Incomplete Citation** is used for any request for an article or publication for which the customer does not supply enough information to identify a source without doing a search for complete bibliographic information (examples: "a book by Drucker on management," "an article in last week's Wall Street Journal about Segway).

**Articles External** is used for any full-text article outside your own collection. This means an article or portion thereof supplied to a customer that was downloaded via the Internet, derived from a network agreement, copied from an online database or another electronic resource in which your library is not normally a subscriber.

**Articles Internal** is used for any full-text or portion of an article provided to the customer from your own library collection, copied from an online database or another electronic resource in which you are a subscriber.

**Web Sites Located** is used whenever you provide the customer with the URL of a resource that provides a partial or full answer to a request for an article, publication or information.

**Literature Search/Topic** is used whenever a customer is provided with a list of titles, abstracts and/or URLs identified in response to a request for information *on a specific topic*.

To access the Excel spreadsheet, see variants and valuable applications of tracking statistics, visit the blog at <http://www.ctcandassociates.com/lpfblog/?p=139>.

# Iowa DOT - Library User Survey

## 1. INTRODUCTION

This survey is being used to collect information on the services provided by the library at the Iowa Department of Transportation. The information will be used to improve the services and materials provided by the library.

Please take a few moments to complete this survey.

THANK YOU!

## 2. SERVICES AVAILABLE

This section of the survey asks about some of the services available at the library.

Please indicate how satisfied you are with each service AND how important you believe it is to have this service available.

1. For each service below, rate both your satisfaction with the service and the importance of having it available.

	SATISFACTION	IMPORTANCE
Interlibrary loan service	<input type="text"/>	<input type="text"/>
Reference/information service	<input type="text"/>	<input type="text"/>
Presentations on database(s) & literature searches by staff	<input type="text"/>	<input type="text"/>
Electronic newsletters, research updates, etc sent out	<input type="text"/>	<input type="text"/>

2. COMMENTS (On existing or desired services)

## 3. VISITS TO THE LIBRARY

This section of the surveys asks about how often you frequent the library and the things you do while there.

3. How often do you come to the library? (check one)

- More than once a week
- Weekly
- Monthly
- Less often

4. Which of the following have you done on your visits to the library in the last year? (check all that apply)

- Asked staff for assistance
- Looked for books, journals, etc.
- Borrowed or returned material
- Made photocopies
- Attended instruction/training/consultation session
- Studied/worked individually
- Studied/worked in a group
- Used library's computer
- Used my own computer/laptop
- Used for a meeting

Other (please specify)

## 4. ACCESSIBILITY

This section of the survey asks about accessibility to information, staff and the library itself.

Please indicate how satisfied you are with the accessibility of each item AND how important you believe it is to have access to the item.

5. For each of the items below, rate both your satisfaction with it and the importance of having it available.

	SATISFACTION	IMPORTANCE
Access to computers	<input type="text"/>	<input type="text"/>
Assistance from staff	<input type="text"/>	<input type="text"/>
Access to library web page (intra- & internet)	<input type="text"/>	<input type="text"/>
Access to on-line library catalog	<input type="text"/>	<input type="text"/>
Access to on-line collections	<input type="text"/>	<input type="text"/>
Access to other on-line resources	<input type="text"/>	<input type="text"/>
Ability to photocopy materials	<input type="text"/>	<input type="text"/>
Ability to print out materials	<input type="text"/>	<input type="text"/>
Place to work individually	<input type="text"/>	<input type="text"/>
Place to work in groups	<input type="text"/>	<input type="text"/>

## 6. COMMENTS

## 5. OVERALL

This section of the survey asks you to provide an overall opinion of the library.

### 7. Overall, rate the library on each of the following:

	1 - Poor	2	3	4	5 - Excellent	Not Applicable
Quality of on-site collections	jn	jn	jn	jn	jn	jn
Quality of electronically accessible collections	jn	jn	jn	jn	jn	jn
Quality of distributed electronic information	jn	jn	jn	jn	jn	jn
Quality of customer service	jn	jn	jn	jn	jn	jn
Inviting environment	jn	jn	jn	jn	jn	jn
Hours library is staffed	jn	jn	jn	jn	jn	jn

### 8. What suggestions would you have for improving the services and resources provided through the library?

## 6. CONCLUSION

Congratulations! You have come to the end of the survey.

Thank you for taking the time to complete this survey. Your feedback will provide essential information to assist in the improvement of the library.

Please complete your survey by clicking "SUBMIT THIS SURVEY." If a box opens asking if you wish to close the window, respond 'yes.' Thanks again!

**Appendix J—Return on Investment Formula (Jerry Baldwin, Mn/DOT Library)**

The following is adapted from “Mn/DOT Library Accomplishments” by Jerry Baldwin (see [http://www.dot.state.mn.us/library/mndot\\_library\\_benefits.html](http://www.dot.state.mn.us/library/mndot_library_benefits.html)).

**In FY01 Mn/DOT Library services provided an estimated total of \$8,386,500 in reduced costs and added value for a benefits-to-cost ratio of 12:1.**

**Mn/DOT Library Reduced Costs**

- 4,500 information resources were provided in response to specific requests for an estimated savings of \$191,250. NOTE: Library networks were used to borrow about 500 of these resources for use by Mn/DOT employees from 175 other organizations in 45 states and 3 foreign countries.
- 3,600 requests for information on specific topics were responded to for an estimated savings of \$468,000.
- Reduction in duplicate subscriptions provided by the library’s centralized magazine subscription and routing service saved an estimated \$180,000.

**Mn/DOT Library Added Value**

- Mn/DOT employees’ reading of the 4,500 requested information resources provided by the library provided an estimated value of \$5,100,000.
- Mn/DOT employees’ reading of the 40,000 information resources provided through the library’s routing services provided an estimated value of \$2,400,000.
- Viewing and use of Mn/DOT Library’s Web pages provided an estimated value of \$47,250.

**Estimates of Annual Mn/DOT Cost Savings and Cost Avoidance Attributable to Mn/DOT Library Services**

**Reference Services (Savings of Customer’s Time)**

	600	In-depth reference questions handled each year
Times	16	Estimate of hours of customer’s time saved per question
Times	<u>\$30.00</u>	Estimate of hourly value of customer’s time
<b>Savings</b>	<b>\$288,000.00</b>	
	3,000	Quick reference questions handled each year
Times	2	Estimate of hours of customer’s time saved per question
Times	<u>\$30.00</u>	Estimate of hourly value of customer’s time
<b>Savings</b>	<b>\$180,000.00</b>	

**Document Delivery (Savings of Customer’s Time and Avoidance of Purchase Costs)**

	1,500	Articles downloaded or photocopied
Plus	1,000	Interlibrary loans
Plus	2,000	Publications checked out from collections
Times	1	Estimate of hours of customer’s time saved per article
Times	<u>\$30.00</u>	Estimate of hourly value of customer’s time
<b>Savings</b>	<b>\$135,000.00</b>	

	1,500	Articles downloaded or photocopied
Plus	1,000	Interlibrary loans
Plus	2,000	Publications checked out from collections
Times	\$50.00	Estimate of costs per item of acquiring through other channels if library did not exist (price + purchase order processing, payment, etc.)
Times	0.25	Estimate of percent of materials that would be acquired if not available from the library
<b>Savings</b>	<b>\$56,250.00</b>	

**Routing Service (Avoidance of Purchase Costs)**

	400	Periodicals subscriptions
Times	\$150.00	Average cost per subscription through other channels if library did not exist (price + purchase order processing, payment, etc.)
Times	3	Average multiple subscriptions if sharing through routing service did not exist
<b>Savings</b>	<b>\$180,000.00</b>	

**Total Savings and Avoided Costs \$839,250.00**

**NOTE:** These are measures of only the time and dollars saved in acquiring information. They do not measure the actual value of the information itself or the benefits derived from application of the information acquired.

**Estimate of Annual Added Value Attributable to Mn/DOT Library Services**

	1,500	Articles downloaded or photocopied
Plus	1,000	Interlibrary loans
Plus	2,000	Publications checked out from collections
Plus	4,000	Publications from collections used in the library
Times	0.75	Percent of items that would not be read if library did not exist
Times	\$600.00	Average value per reading (Griffith & King, 1993)*
<b>Value Added</b>	<b>\$5,100,000.00</b>	
	40,000	Resources distributed through routing service
Times	0.1	Estimate of number of routed items that add value
Times	\$600.00	Average value per reading (Griffith & King, 1993)*
<b>Value Added</b>	<b>\$2,400,000.00</b>	
	27,000	Annual visitors to Mn/DOT Library websites
Times	3.5	Average minutes spent viewing pages per visitor
Divided by	60	Minutes per hour
Times	\$30.00	Estimate of hourly value of customer's time
<b>Value Added</b>	<b>\$47,250.00</b>	

\* Professionals report substantial savings as a result of reading; average savings are nearly \$600 per reading of journals, books and internal reports. These savings, relative to the cost of acquiring and using information, yield a return-on-investment ratio of about 10.2 to 1. (*Special Libraries: Increasing the Information Edge*, Jose-Marie Griffiths and Donald W. King, 1993.)

**Benefits and Return on Investment**

	\$839,250.00	Savings and Avoided Costs
Plus	\$7,547,250.00	Value Added
Divided by	<u>\$700,000.00</u>	Library Costs (salaries, supplies, equipment, space)
<b>Benefits to Cost Ratio</b>	<b>12:1</b>	

	\$839,250.00	Savings and Avoided Costs
Plus	\$7,547,250.00	Value Added
<b>Total Benefits</b>	<b>\$8,386,500.00</b>	
Minus	<u>\$700,000.00</u>	Library Costs (salaries, supplies, equipment, space)
<b>Annual ROI</b>	<b>\$7,686,500.00</b>	

**Note:** This analysis does not include additional benefits derived from the library. No value estimates can be readily calculated for many potential measures. These include the value of creating metadata describing Mn/DOT publications. This metadata is added to WorldCat, which makes information created by Mn/DOT more accessible to transportation practitioners around the world. Also, it is difficult to estimate the “goodwill” value created by the loan of information resources to at least 179 organizations in 46 states, five Canadian provinces and five other countries in FY01 alone.

**Numbers Used in the ROI Analysis****Citable Source**

Average value per reading: *Special Libraries: Increasing the Information Edge*, Jose-Marie Griffiths and Donald W. King, 1993.

**Mn/DOT Library Customer Surveys**

Estimate of hours of customer’s time saved

**Mn/DOT Library Statistics**

Reference questions handled  
 Articles downloaded or photocopied  
 Interlibrary loans  
 Publications checked out from collections  
 Periodicals subscriptions  
 Resources distributed through routing service  
 Annual visitors to Mn/DOT Library Web sites  
 Average minutes spent viewing pages per visitor

**Professional Judgment or Informed Estimates**

Estimate of hourly value of customer’s time  
 Estimate of percent of materials that would be acquired if not available from the library  
 Average multiple subscriptions if sharing through routing service did not exist  
 Percent of items that would not be read if library did not exist  
 Estimate of number of routed items that add value  
 Publications from collections used in the library

**Professional Knowledge and Experience**

Estimate of costs per item of acquiring through other channels if library did not exist (price plus cost of purchase order processing and payment)  
 Average cost per subscription through other channels if library did not exist (price plus cost of purchase order processing and payment)<sup>27</sup>

<sup>27</sup> Jerry Baldwin, excerpted from ROI documents presented at First Annual Pooled Fund Meeting, October 2005.

## Bibliography

Association of Research Libraries. *ARL Statistics 2004-2005: A Compilation of Statistics from the One Hundred and Twenty-Three Members of the Association of Research Libraries*. Washington, D.C.: ARL, 2006. <http://www.arl.org/bm~doc/arlstat05.pdf>

Baldwin, Jerome C. *Return on Investment at Mn/DOT Library*. Excerpted from ROI documents presented at First Annual Pooled Fund Meeting, October 2005. [http://www.dot.state.mn.us/library/mndot\\_library\\_benefits.html](http://www.dot.state.mn.us/library/mndot_library_benefits.html)

British Library. *Measuring Our Value: Results of an Independent Economic Impact Study Commissioned by the British Library to Measure the Direct and Indirect Value to the UK Economy*. British Library, 2003. <http://www.bl.uk/pdf/measuring.pdf>

Buckland, Michael. *Library Services in Theory and Context*, 2nd ed. 1999. <http://sunsite.berkeley.edu/Literature/Library/Services/>

Bureau of Transportation Statistics Web site: <http://www.bts.gov/>

Ciracella, Jill. *You and Me and Google Makes Three: Welcoming Google into the Reference Interview Library Philosophy and Practice*, 2007. <http://libr.unl.edu:2000/LPP/lpp2007.htm>

Committee for a Future Strategy for Transportation Information Management, Transportation Research Board of the National Academies. *Transportation Knowledge Networks: A Management Strategy for the 21st Century*. Washington, D.C.: TRB, 2006. [www.trb.org/publications/sr/sr284.pdf](http://www.trb.org/publications/sr/sr284.pdf)

Finnerty, Chuck. *Library Space Planning in the Electronic Era: Are the Stacks Necessary?* Information Outlook, 6(8), August 2002. <http://www.sla.org/content/memberonly/infoonline/2002/02/02/finnerty.cfm>

Interlibrary Loan Code for the United States. American Library Association, 2001. <http://www.ala.org/ala/rusa/rusaprotools/referenceguide/interlibrary.cfm>

International Federation of Library Associations and Institutions. *Alexandria Manifesto on Libraries*, the Information Society in Action, IFLA Headquarters, The Hague, Netherlands, 2006. <http://www.ifla.org/III/wsis/AlexandriaManifesto.html>

International Federation of Library Associations and Institutions. *Recommendations and Best Practices for Libraries of Government Departments: Guidelines for Library Development*. IFLA, Draft, August 2007. [http://www.ifla.org/VII/s4/pubs/Guidelines-Gov-Lib\\_Draft.pdf](http://www.ifla.org/VII/s4/pubs/Guidelines-Gov-Lib_Draft.pdf)

Strouse, Roger. "ROI for Libraries Remains High." <http://www.outsellinc.com/store/insights/3538>

Suber, Peter. Open Access Overview, June 19, 2007. <http://www.earlham.edu/~peters/fos/overview.htm>

Transportation Information Resource Management: Articles and Reports. <http://www.dot.state.mn.us/library/access.html>

UCLA Copyright Policy. <http://www2.library.ucla.edu/copyright/2135.cfm>

*Understanding Research Behaviors, Information Resources, and Service Needs of Scientists and Graduate Students: A Study by the University of Minnesota Libraries*, June 2007. <http://www.lib.umn.edu/about/scieval/Sci%20Report%20Final.pdf>

Wisconsin Department of Transportation  
Research & Library Unit  
4802 Sheboygan Avenue, Room 104  
P.O. Box 7915  
Madison, WI 53707

Midwest Regional University Transportation Center  
University of Wisconsin-Madison  
2205 Engineering Hall  
1415 Engineering Drive  
Madison, WI 53706-1791

[www.libraryconnectivity.org](http://www.libraryconnectivity.org)