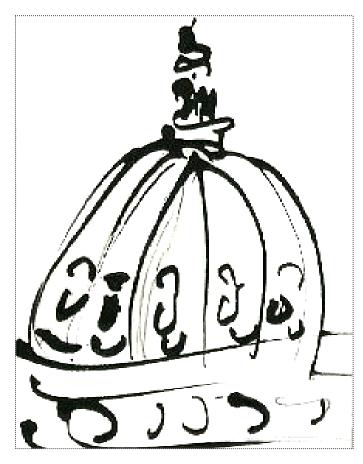


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Public Libraries and the Internet 2006: Study Results and Findings

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XI. SUCCESSFULLY NETWORKED PUBLIC LIBRARIES

In this portion of the study, members of the study team visited five states—Texas, Iowa, New Jersey, Oregon, and Florida—beginning January 20, 2006 and ending April 13, 2006. The site visits included State Library agencies and public library systems and branches, and also involved interviews with 84 library managers (Appendix 2 is a list of libraries and individuals visited). The site visits had the following objectives:

- **2006 SNPL Description**: What elements describe a Successfully Networked Public Library (SNPL) in 2006?
- **Becoming a SNPL**: What are critical success factors that library managers should address when seeking to become more successfully networked?
- Roles played by SNPL external partners: What are the key roles played by SNPL partners such as state library agencies, state library associations, library systems and private donors?
- **Measures that matter**: What measures have SNPL managers found to be useful to manage and to show value?
- Advocacy and efforts to obtain sustainable funding: What strategies SNPL managers used when advocating locally for continued public library and networked services' support?

This site visit portion of the study makes no claims for generalization. Rather, the study method (Appendix 3) identifies and points to activities, practices, issues and ideas occurring at one or more of the libraries visited that may be worthy of consideration by any public library seeking to become successfully networked. This portion of the study also seeks to provide a context for the survey results presented earlier.

A brief overview of findings from site visits describing successfully networked public libraries is included in this report (See Appendix 3A). Also included within this report is a sample of the emails sent to participants of the site visits (See Appendix 3B) and a copy of the site visit interview script and site visit survey (See Appendix 3C).

Findings

Defining Success

An objective of this portion of the study was to better define what a successfully networked public library (SNPL) is in 2006 for several reasons:

- 1. **Understanding networked services today and tomorrow**: Now that public libraries are connected, what changes in the provision of networked services have occurred and why have they occurred? What factors are likely to affect public libraries' networked services in the future and why? Are there performance indicators that could be usefully measured in the future?
- 2. **Piloting**: Library managers were interested in "piloting" management data. How am I doing? Where am I in the process? What else could I do? SNPL managers were

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very interested in this objective because "there are not enough tools available to assist libraries in becoming successfully networked." All those interviewed agreed that a structure for defining network services did not exist and data of any type were hard to find

- 3. **Valuing**: Library managers were also interested in "valuing" data. How does my library's network services compare to other such network services? This objective was not reached aside from identifying potential data elements for future comparisons.
- 4. **Training**: State Library and library system continuing education staff said they needed aids that they could use with public library managers to assist in planning in order to determine where they were in becoming successfully networked and determining next steps for the library.
- 5. **Speed adoption**: Providing information that identified examples of real world networked services applications, suggested strategies for help, and review of the most popular applications, hardware, and software in use would be useful to help speed adoption of network services.

The researchers asked the SNPL managers interviewed for their definition of an SNPL. Managers focused on three areas: networked/electronic services offered within the library (e.g., public access workstations, Internet access); services offered by the library's virtual branch (e.g., the libraries web site) and the infrastructure necessary to support both. Figure 45 (below) offers a quick summary of key elements that define a successfully networked public library in 2006.

Figure 45: 2006 SNPL Key Elements.

A. Infrastructure

- 1. **Connection**: **Broadband**: Does the library offer a PUBLIC ACCESS Internet service broadband connection, e.g., 768kbps or greater? **Wireless**: Does the public library offer public wireless Internet access (or is it planned over the next year)?
- 2. **LAN/WAN**: Is there a public (and staff) LAN/WAN(s) sufficiently fast, secure, reliable and well maintained to meet public (and staff) needs? Includes sufficient current technology, backup, management of IT, and appropriate number of knowledgeable staff.
- **3. IT Staff**: Does the library have dedicated IT staff sufficient to manage and maintain the library's information technology (IT) and meet public demand for library networked services?
- 4. **Staff IT**: Does library staff have adequate IT support? May include: staff workstations, LAN/WAN, listsery, blog, IT based calendar/scheduling, intranet, training, etc.
- 5. **Staff training**: Does staff receive enough IT training to be proficient at their jobs?

Source: Bertot, J. C., McClure, C. R., Jaeger, P. T., & Ryan, J. (2006). Public Libraries and the Internet 2006: Study Results and Findings. Tallahassee, FL: Information Use Management and Policy Institute, Florida State University. Available: http://www.ii.fsu.edu/plinternet/

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¹⁸ In order to better define what a SNPL is in 2006, the study began with a broad inclusive definition of networked. "Networked" is used broadly to include public library computing, Internet, networks, telecommunications, integrated library systems and other related electronic resources, services and support. The study asked the State Librarian and Library Development staff and public library managers visited to describe elements of a successfully networked public library in 2006. The individual libraries visited within each state were chosen based on the advice of the State Library and logistical constraints. There was rapid and ready agreement on whom the best example SNPL libraries were in each state. Those interviewed were shown the latest SNPL description as it iteratively evolved and were asked to make comments. Later these managers were shown final draft versions of the description for additional comment.

Figure 45 (cont'd): 2006 SNPL Key Elements.

- 6. **Local funding:** Is local funding stable and adequate? Are library IT expenditures, in whole or in part, locally obtained operating funds (or is this planned over the next year)? Locally funded means that library IT staff and equipment are line items on the city or county library budget. Library IT expenditures include funds for dedicated IT staff and for meeting IT replacement plan targets.
- 7. **Local partnerships**: Is library management <u>proactively¹⁹</u> engaged in developing local partnerships that involve library network resources and services? Does library management regularly attend local government meetings, meet with local government agency managers, meet with local non-profits/foundations, and regularly attend local business association meetings?
- 8. **External partnerships/funding**: Does the library regularly and <u>proactively</u> seek, apply and obtain external funding or partnerships for network services? Activities may include systematic environmental and funding scans, receiving electronic (and other) funding alerts, applying for State Library funding and meeting with State Library officials, and applying for e-rate funding.
- 9. **Planning, policies & procedures**: Does the library have an information technology plan? Does each networked service have appropriate policies and procedures?
- 10. **Marketing & promotion**: Does each library network service have a plan that identifies target audience(s), means of promotion, and measures of successful promotion?
- 11. **Evaluation**: Does each network service have a plan for measuring value & improving management? Evaluation shows a service's worth. Management measures assist in planning and balancing workload.
- 12. **Leadership**: Does the library director and administrative staff provide strong leadership, vision, and support for developing network services, resources, and programs?

B. Within the Library Networked Services

- 13. **Public access computing**: Does the library offer sufficient number of public workstations, software (e.g., browser, word processor) and accessories (e.g., printers)?
- 14. **ILS/OPAC**: Does the library offer an Integrated Library System (ILS)²⁰ or modules such as an Online Public Access Catalog (OPAC)?
- 15. Videoconferencing: Does the library offer the public access videoconferencing?
- 16. **ILL**: Does the library, using net services, allow borrowing of materials from other libraries?
- 17. **Digital collections and equipment**: Does the library provide access to digital collections such as CDs, DVDs, e-books, games, etc? Does library offer access to digital equipment such as camcorders, digital cameras, iPods, MP3s, etc.
- 18. **Accessible technologies**: Does the library offer sufficient accessible technologies to meet demand? Are these technologies sufficiently advertised?
- 19. **User training**: Does the library offer sufficient formal and informal training in computer, software, Internet and other library and network services skills to meet public demand?

C. Library's Virtual Branch

20. **Library web site**: Does the library have a web site that it controls and regularly updates content?

21. **Usability, functionality, accessibility**: Does the library regularly examine its site for usability, functionality and accessibility? For example, are there sufficient interfaces (e.g., kids, teens), navigation aids (navigations bars, site index, FAQs help), use of graphics (and audio), is there multilingual access, is the site ADA compliant? Does the library regularly ask for feedback on its site?

Source: Bertot, J. C., McClure, C. R., Jaeger, P. T., & Ryan, J. (2006). Public Libraries and the Internet 2006: Study Results and Findings. Tallahassee, FL: Information Use Management and Policy Institute, Florida State University. Available: http://www.ii.fsu.edu/plinternet/

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¹⁹ Proactive here means that the library manager actively goes outside the library and seeks opportunity rather than waiting for opportunity to walk in the door.

²⁰ An Integrated Library System (ILS) is a group of automated library subsystems working together and communicating within the same set or system of software to control such activities as circulation, cataloging, acquisitions and serial control. Oklahoma Department of Libraries. Trustee manual: Glossary. http://www.odl.state.ok.us/servlibs/l-files/glossi.htm.

Figure 45 (cont'd): 2006 SNPL Key Elements.

- 22. **ILS on the Web**: Is the library's Integrated Library System (ILS) and subsystems available on the library web site? Includes availability of the OPAC, remote access to patron account, remote placing of holds, remote renewals, remotely obtaining a library card, federated search of library collections, remote event, library meeting room scheduling, remote workstation scheduling, and A-to-Z library periodical title list look up.
- 23. **Collections**: Are library collections accessible on the library web site? May include: subscription database access, downloads of e-books and audio books, videos, structured links to remote collections, podcasts of library programs, RSS news feeds.
- 24. **Virtual Reference**: Does the library offer access to virtual reference and reader advisor services? These services may originate in the library, be offered remotely, or be a paid service. Examples may include: virtual reference by e-mail chat, or videoconference; or, online book and media clubs and reviews.
- 25. **Library information**: Is there sufficient information about the library on the web site? May include: library hours, locations, staff directory, library history, newsletter, events calendar, <u>policies and procedures</u>, information, plans, and how to contribute to library <u>financial support</u>.
- 26. **Community information**: Is there sufficient information about the community on the web site? May include "help me make it through the day" information (time, temperature, maps and directions, traffic, school closings, crossword, news, sports), newspapers and media, community events, calendar and entertainment, local business (directory, employment, startup), local statistics and government information.
- 27. **Local community content:** Does the library aggregate, collect, organize or present locally produced content on its web site? May include local history: special collections newspapers, images, maps, videos, audio; digitized and indexed. May include community forums (listservs, blogs). May be organized collections of web links or aggregations (e.g., locally produced videos and podcasts).

Source: Bertot, J. C., McClure, C. R., Jaeger, P. T., & Ryan, J. (2006). Public Libraries and the Internet 2006: Study Results and Findings. Tallahassee, FL: Information Use Management and Policy Institute, Florida State University. Available: http://www.ii.fsu.edu/plinternet/

Appendix 4 expands the summary description in Figure 45 (above) of a successfully networked public library as follows:

- 1. Appendix 4 begins with an introduction to the other parts of the Appendix.
- 2. Appendix 4-A: 2006 SNPL Checklist: This checklist provides public library managers with a set of characteristics of a successfully networked public library. These characteristics are clustered into the following areas: connection, IT infrastructure, IT and collections accessed within the library, and public workstations and training offered. Each of the elements covered are treated in more detail.
- 3. Appendix 4-B: 2006 Successfully Networked Public Libraries Catalog: The catalog provides more detail on SNPL elements than the Checklist including examples and references.
- 4. Appendix 4-C: 2006 Summary of Public Library IT & Network Services: This quickly communicates a public library's information technology and network services specifications to other library information technology managers, library funding agencies and library vendors.

The next section offers additional observations related to describing SNPLs, based on the site visits.

Observations

These observations, based on site visit interviews, are arranged by within the categories of library services, the virtual library branch, and the infrastructure that supports both within library and virtual networked services.

Network Services within a Library

Observations regarding network services within the library at the SNPLs visited include:

- 1. **Successful at traditional & networked services**: Successfully networked public libraries also excel in the provision of traditional library services. SNPLs have not dropped traditional services, but they have added a range of networked services.
- 2. Successful includes use of all media on a topic: SNPL managers define successful library use to include the circulation (or use) of all media types (books, audio books, DVDs, databases) on a topic not just one media type. Indeed in some SNPLs all media related to a high interest topic (e.g., employment, genealogy and auto repair) are clustered together by topic (rather than media) in the library. An employment center might consist of a workstation with an opening menu providing links to an online job bank, resume writing software and organized Internet links related to employment. Surrounding the workstation are books and audio books on conducting a job search, resumes, how to learn new skills, and videos and DVDs on interviewing techniques and other employment related topics.
- 3. **Public access computers**: Library users, staff and local funding agencies tend to view public access computers as *essential* infrastructure, not a service. Applications define services not the technology (or even the software).
- 4. **Principal networked services**: Appendix 5 summarizes an informal survey of observed uses of network services within a library. A sample of network use by age might include:
 - Younger children: games, watch DVDs, card catalog;
 - Preteen/teen: chat, e-mail, games, music downloads, research/homework, office programs, watch DVDs, card catalog;
 - Adults: resumes/job search, research, training on computer use/internet classes, tax forms and e-tax, office programs, card catalog, distance education tasks, genealogy, games;
 - Staff: interlibrary loans, card catalog, research, office programs, e-mail.
 - **Subscription databases**: Both staff and users expressed widespread dissatisfaction with these services particularly when compared to Internet alternatives such as Google and Yahoo. Subscription services were faulted because:
 - User authentication was time consuming ("I had my answer on Google before the subscription service recognized I was a legitimate user.").

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²¹ Method: SNPL managers at libraries visited in three states were asked via e-mail in February 2006 to report observed usage of network services within a library. Reporting public libraries were of all sizes and demographics (rural, suburban, and urban). Reports were summarized and distributed to elicit additional comments and in an effort to reach saturation/consensus.

- Searching was more difficult, less intuitive, and often less rewarding than Internet services.
- Quality of material (often peer reviewed) did not add enough value.
 - **Integrated Library Services** (ILS): Both staff and users expressed dissatisfaction with public library ILS. ILS were faulted because:
- Searching: search time was consuming, cumbersome and often less rewarding than Goggle or Yahoo.
- Not comprehensive: Users wonder why ILS does not provide organized access to library holdings and subscription databases and Internet and ... "anything we as library users have access to" via one easy to use search.
- Not as convenient: Free commercial Internet services did not require authentication and other procedures or navigational requirements.
 - Improved branch services: Historically, public library branch resources²² and services²³ were not as good as those offered at the main library of the system e.g., the branch collections were not as rich and specialized expert staff unavailable. Recently, many SNPL managers have adopted the strategic objective of offering the same level of library services in the branches as is available at the main library. This change in strategy has been enabled and driven by the availability of network technology (i.e., branch broadband connections and public access workstations). Network technology is also redefining what is a system and branch look for further discussion below. It is also a force for equitable distribution of resources and services within a library system, and enables those who control the network to impose, to some degree, consistent, minimum service standards, levels and access, and influence on local content/collection quality.
 - Network technology: New services or new efficiency: At several of the most successfully networked public libraries, interest in the use of network technology focused primarily on improving the efficiency of existing operations rather than introducing new services. Indeed, new services would not be introduced unless there was improved efficiency for existing services. Users did not want to give up old services and the library did not have the resources to add new services while continuing the old.

Many SNPLs have not reduced traditional library services as they embrace network services. Rather, SNPLs continue to provide what their users demand: both the traditional and the new networked services. Library managers expect and need network technology to improve operational efficiency as much, if not more, to introduce new network-driven uses and to attract new users. Many SNPL managers, driven by newly available network technologies, have as a strategic goal to provide the same levels of services at every branch.

²² Digital collections, unlike physical collections, may be offered at both main and branch libraries. Network technologies have even improved the distribution of print-based materials.

²³ Perhaps the most dramatic improvement in branch services is in reference. Virtual reference services make high quality reference service backed by adequate reference collections possible at every branch.

SNPL's Virtual Branch

Observations regarding the development of a SNPL's virtual branch to serve its remote and mobile, network connected users based on interviews with the SNPLs visited include:

- 1. **Virtual branch**: The SNPL's web site is becoming a new branch of the library, in essence a virtual branch. These virtual branches have access to similar staff levels, resources, and management as physical branch facilities within the organization. A management goal is to offer the same (or similar) library services that are offered at any branch in the system.
- 2. **Local community centered**: Many SNPL managers perceive the audience for their SNPL virtual branch to be the local community,²⁴ who are registered members of the library. This is true even though branch services could be available to anyone with an Internet connection, regardless of their location. SNPL managers note that historically public libraries serve local communities and that their principal source of funding is local. Few if any models exist for rewarding state or national distribution of local virtual branch produced services.²⁵ Some SNPL managers recognize the audience of remote users that have an interest in the local community (e.g., those thinking of relocating or visiting the local community).
- 3. **Slower to develop than network services within a library**: SNPLs were among the first to develop web sites in their communities. Some SNPLs helped other local government, non-profits, and businesses develop their first web pages, but then these services appeared to languish. One common reason offered by SNPL managers was that their communities did not have reliable Internet connections (often not even dialup).²⁶ As connection availability increases SNPL managers are devoting more resources to their virtual branches.
- 4. **Community broadband penetration may be an important indicator**: The degree to which community members have broadband connections may well be a key indicator of the likely use of public library virtual branches. Simply, if the community is not connected, particularly at broadband speeds, they will not access Internet based services like the virtual branch of the library.
- 5. **Virtual branch services need not be locally produced**: SNPLs and external partners are actively exploring remote production and delivery of services to local virtual branches. Current examples include remotely delivered content and collections (subscription databases), ²⁷ reference (virtual reference), ²⁸ and virtual branch hosting itself. ²⁹

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²⁴ This observation is made with the understanding that the local community may consist of several counties encompassing a small area or the community may include millions of potential users. As will be noted below, these same SNPLs have been generous in providing infrastructure beyond their local communities.

²⁵ Forward looking library systems and State Libraries are looking for ways to speed the process of moving locally developed virtual services and innovations to the rest of the libraries within the system or state.

²⁶ To be clear, the SNPL was connected (often with broadband) and computers were widely available in the community (home, work, and school), but the connection between network services and home (office, school, etc.) was poor. One rural, deep IT pocket SNPL visited was participating with other community agencies and businesses, Verizon and the Department of Homeland Security, to develop a county-wide wireless connection to enable network connections at greater than 19.2kbps via dialup.

²⁷ See Appendix 6 for a list of State Libraries that offer subscription databases and other collections to local libraries.

- 6. **Public libraries lack an identity or brand in the virtual world**: Library users will not find a standard set of core content or services when accessing a library's virtual branch outside of a community or perhaps a library system. For example, will the library OPAC or ILS be accessible on the web site? This is similar to the historic situation with traditional library services. How long can I check out a book? Does the library have DVDs? This lack of a consistent core set of content or services makes marketing, promoting, or branding of library services (among other tasks) difficult. Without a compelling virtual identity there is no compelling reason for use, as documented in the 2005 OCLC Perceptions study.³⁰
- 7. **Usage low but rapidly increasing**: Virtual branch usage may be low but a number of SNPLs report rapid growth in use. Library managers suggest that usage should continue to increase as the community gets connected and libraries focus more attention on their virtual branches.
- 8. **Center of innovation**: Virtual branch development is a clear area of public library innovation. Two conflicting interpretations of the status of virtual branch libraries are in play. Virtual branch services lack a common identity and do not offer the ease of access, convenience and collection size of established commercial competitors. Library managers suggest that until recently virtual branch development may have been premature because their communities were not connected. Yet, virtual branch usage appears to be increasing and a great deal of innovation is under way.

Infrastructure

Adequate infrastructure underpins SNPL within library and virtual services. Three elements stand out at the successfully networked public libraries visited: adequate public access computing, adequate and stable funding, and savvy knowledgeable leadership.

Public access computing

Many SNPLs were early adopters of public access computing including workstations, local area networks (LAN), and Internet connections, along with various software applications. Many SNPLs visited have partnered with vendors to develop library applications. All used external funds (federal, state, local, and private) to establish or upgrade their public access computing hardware, network, and software. Public access computing infrastructure supports all successful network activities, yet it becomes taken for granted as demand is regularly met. SNPLs recognize that they may never meet public access computing peak demands, but they have established reasonable demand targets and are meeting them.

²⁸ See Appendix 7 for a list of State Libraries that support virtual reference services for local library (and general public) use.

²⁹ A number of state libraries are developing remote web site hosting using the open source content management system called Plone http://plone.org/ based on Zope. This will enable the State Library to offer local libraries a form-based web site. The State Library stores and maintains the web site. The local library supplies local content. For example, see Oregon's Plinket http://www.plinkit.org/ or Iowa's Plow (Putting Libraries on the Web) http://www.statelibraryofiowa.org/ld/gatesgrants/stay/sc-index>.

³⁰ OCLC. (2005). Perceptions of libraries and information resources. Dublin, OH: OCLC. http://www.oclc.org/reports/2005perceptions.htm.

Adequate, stable funding

All of the SNPLs visited made use of external funds as a catalyst to explore new technologies and applications, to demonstrate proof of concept, and to upgrade capacity sooner or beyond what they thought they would need (only to find out it was not enough). However, the libraries visited would not have been able to sustain successful network services without adequate and stable local support. Several observations based on SNPL interviews may be useful:

- 1. **Transition from external to local support**: Currently, many SNPLs are making the transition from external sources (via grants) to local funds as a more sustainable source of support for network services.
- 2. **Local payment of replacement costs**: A key factor is whether a library has a technology replacement plan, whether the library has met replacement targets, and whether the funding comes from local sources. One SNPL, whose IT costs were paid for by a local foundation, went so far as to obtain a loan from a local bank to pay for IT replacement. His point to the county commissioners was there must be local government buy in for library network services to be sustained. The county is paying back the loan and giving the library a predictable, regularized, replacement line item for future budgeting.
- 3. **In-house dedicated IT staff**: Some public libraries buy a local computer consultant's time when they need it. Other libraries depend on volunteers, which is often problematic as a strategy for IT staff support. A hallmark of an SNPL is they have library dedicated IT staff, whose payment comes from local sources.
- 4. **Local funding = local ownership**: Local funding is a measure of local ownership, buy in, and support of the services offered.
- 5. **Stable funding is as important as adequate funding**: Stable funding was another hallmark of SNPLs. Many SNPLS were library districts.³¹ In two cases, funding for network services was received from local family foundations. The library district model allows the library to directly seek approval from voters for the use of tax revenue to support library services. SNPL managers noted that stable funding was a prerequisite to becoming a successfully networked public library because it enabled the library do realistic multi-year planning and financing.
- 6. **Support is not limited to money**: All noted that support for network services was not limited to money. For example, local government agencies allowed library staff participation in IT related staff training, offered enhanced benefits (without charge to the library), provided IT support, and in some cases shared equipment.
- 7. Who should run the IT shop The library? In some cases, the public library's IT operation was as large as the rest of the municipality's operations combined. Should the library opt to take over the entire city's IT operation? In most cases, there was little interest on the part of the library's IT staff for such expansion of responsibilities.
- 8. **New library network service users do not equal new revenue**: New library users as a result of their use of library network services and public access computing may not equal new sources of library revenue. In essence, more of the library's tax base might be

³¹ Library districts are generally regarded as a preferred way to receive local library support. See for example, Hennen, Thomas J. Jr. (2005). Public library district legislation. http://www.haplr-index.com/public_library_district_legislat.htm.

- receiving a tax benefit (due to their new library use), but the library had not received additional funds.
- 9. Remote distribution of service and support might reduce local burden: SNPLs recognized that the network made cooperative development and delivery of some services via the network both feasible and a likely way of obtaining future support. Examples included: virtual reference, licensed databases offered, sometimes at a discount, by State Libraries, and remote web hosting initiatives under development by a number of State Libraries. The news was not all positive, however. There were reports of rural county commissioners refusing a request to open their library several more hours each week, since the new virtual reference service offered by the State Library could meet residents' needs when the library was not open.

Adequate funding must also be stable funding for a library to become successfully networked. SNPLs are currently making the transition from external funds to local support for their network services infrastructure. Local funding of IT replacement costs and library dedicated IT staff are critical.

Leadership

Several observations about the leadership of successfully networked public libraries and their staff can be made:

- 1. **Director level**: An experienced, savvy, library director was critical. Almost all of the library directors interviewed had a number of years of library management experience. Some were nearing retirement, which will soon present problems for those libraries. All were known as library leaders within their state if not nationally.
- 2. **Dedicated IT manager**: Addressing the need for dedicated IT staff leadership was critical. Even small libraries that are successful realize that they need knowledgeable, dedicated staff to help with IT planning, IT maintenance, ILS and other software installation, management of the increasingly large and local IT budget, and management of the library's new virtual branch (the library web site with local content and services). Each of those functions, depending upon the size of the library (system) can be a full time job. No one solution fit all libraries, and many solutions were creative. In one case, the IT staff issue was successfully addressed by a State Library regional consultant. There was a key leadership quality beyond the obvious need for library IT knowledge and planning and management ability. Successful IT leaders were effective communicators of technical issues and solutions, and they were able to bridge IT and library cultures. The difference between a library that had addressed its IT management issue and one that had not was both subtle and profound. One library director likened it to the difference between dialup and broadband you didn't know you had a problem until you had tried the solution.³²

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³²For example, the subtle: the library IT infrastructure quietly worked, so quietly in fact, reliability was taken for granted. The less subtle, most SNPL directors could readily point to savings due to good IT managers. Often the savings were substantial. The profound changes the way libraries do business: replacing branch level reference services and collections with video chat staffed by reference librarians and headquarters.

- 3. **More than an MLS**: Often good library leaders and good staff do not come with an MLS tag attached. Several excellent IT managers lacked college degrees. Several more had liberal arts degrees. Today's SNPLs require a diversity of skills and degrees, including skills gained through means other than graduate school. In the SNPLs visited, skill trumped degree, race, culture, gender, and other factors. SNPL managers not only recognized this reality, they embraced it. There remain unresolved issues in this area, however. IT staff pay, often at or above the library directors, was an issue. One very successful SNPL director had to isolate new MLS hires from the old for "fear of contamination from old library ways."
- 4. **Continuous change**: To become an SNPL means to undergo significant, near continuous change. This means making mistakes, as well as living with disruption and some confusion. Library leaders need to be willing to change their behavior, motivate others to do so, and be willing to sanction those who do not change with appropriate speed. Getting the balance right between not moving too fast and not moving at all requires exceptional leadership and the SNPLs visited have it.
- 5. **Continuous education**: SNPL managers are generally strong advocates for providing each staff member with the training (and technology) they need to be proficient at their jobs. A majority of SNPLs have paid for some of the IT training needed by key staffers beyond that available from the State Library or State Library association.

Senior management leadership, while necessary, was not sufficient to becoming n SNPL. A sufficient number of knowledgeable and highly motivated staff at all levels of the organization also needed to be available.

Infrastructure

Additional observations regarding infrastructure contributions to the development of a successfully networked public library include:

- 1. **New buildings**: The majority of the SNPLs visited were in new facilities, were about to move in to new facilities, or were planning new facilities or branches. The development of virtual library services might prompt, in part, the need for new physical library facilities
- 2. **Connectivity**: The sense at the SNPLs visited was that while bandwidth demand may never be met, the problem was being effectively managed in a temporary sense. The most successful of the SNPLs already anticipated a new "bandwidth crunch" on the horizon as large digital transfers (e.g., streaming video, podcasting, etc.) become more common. Most of the libraries visited had or were thinking about offering wireless. One rural library was working with a number of partners to offer a county wide wireless solution. The payoff for the library was increased use of its virtual library.
- 3. **Continuous planning**: Most SNPLs conduct extensive and continuous, formal and informal network service planning. The planning is closely linked to broader planning efforts in the library and with the city or county.
- 4. **Insufficient service planning, marketing, and evaluation**: Most SNPLs did not do enough systematic marketing, promotion, and evaluation of their network services. Basic questions that were not addressed included issues of who the service is for and how we

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will know if we are succeeding. Larger questions like who does the library serve, what value do we offer each client group, what evidence do we have, how may the service generate sustained revenue are not systematically addressed. Designating annual funds for the marketing and promotion of individual services are rare.

Infrastructure enables the network services to be offered within the library and virtually. Successfully networked public libraries have devoted adequate attention to key infrastructure requirements

Becoming an SNPL

So what can be done to assist more libraries to become successfully networked? What are critical success factors that library managers should address when seeking to become more successfully networked? Figure 46 (below) identifies basic critical success factors to becoming a more successfully networked public library in 2006. Appendix 4 gives a more detailed look at SNPL success factors.

Figure 46: 2006 Successfully Networked Public Library Critical Success Factors.	
Infrastructure	
Critical Success Factor	Discussion
Adequate & stable funding	Does the library have adequate, stable funding? The library district approach is favored by many.
Library dedicated IT staff	Does the library have IT staff dedicated to the library? IT staff must handle more than day to day maintenance. IT staff should be part of management team involved in service planning etc. IT staff must be able to effectively communicate with other library staff.
Leadership	Do the library director and administrative staff provide innovative, highly motivated, and visionary leadership to staff and within the local community? Can they articulate the vision with clarity and excitement?
Library broadband connection	Dialup and inadequate broadband (e.g., reduces desktop access to dialup speeds during peak demand) is not an option – the public will not use it. Wireless is worth considering.
Adequate networked workstations	Does the library have an adequate number of workstations with adequate performance specifications, locally networked with broadband Internet access? This is a basic requirement.

Source: Bertot, J. C., McClure, C. R., Jaeger, P. T., & Ryan, J. (2006). *Public Libraries and the Internet 2006: Study Results and Findings*. Tallahassee, FL: Information Use Management and Policy Institute, Florida State University. Available: http://www.ii.fsu.edu/plinternet/

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Figure 46 (cont'd): 2006 Successfully Netv	vorked Public Library Critical Success
Factors.	volked I dolle Elbidiy Citied Success
Web based Integrated Library System (ILS) (OPAC at minimum)	This is a basic service within a library and a virtual library. The service provides a link to the past (better access to physical library materials) and a bridge to the future while highlighting the convenience of the new over the old (i.e., card catalog). Minimum OPAC requirements may include Z39.5 compliant records. This is a perfect system level activity with less benefit if you go it alone.
Within Library Network Services	
Critical Success Factor	Discussion
Services/Applications/software	What services or applications or software will you offer for use within the library? For example, a library ILS, subscription databases, employment center, Office Suite of software.
Training	What programs and training will you offer that involves use of the network services within the library?
Virtual Branch Services	This does not have to be elaborate but takes some thought. Here are two approaches. Develop a plan to occupy each workstation for most hours that they are available with productive, satisfied users (within the library mission – no pornography, no gambling?!). Develop a marketing plan for each network service that you offer that identifies who the audience is for the service, how the service will be promoted to the audience, how the groups will use the service (i.e., identify potential conflicts, scheduling, etc.), identify ways to evaluate if the service is being successfully used, include a plan for gathering evidence that shows each service's value. Included might be a range of library polices – take a look at policies that other libraries have found necessary
Critical Success Factor	Discussion
Community broadband penetration	Do local government, schools, community organizations, offices and homes have broadband access? If not, virtual branch use will be slowed.
Library web site	This is the centerpiece of the service. Easy, convenient access to the library's web site content is essential. The library must control access to the content and it must be easy to change wherever and whenever the library wants to do so. Implied is someone(s) on the library staff who is trained to make these web site changes.
Virtual content	The manner in which content can be delivered virtually is extensive, e.g., websites, databases, etc., see the range of options available in Appendix 5 <i>Catalog.</i>

Source: Bertot, J. C., McClure, C. R., Jaeger, P. T., & Ryan, J. (2006). *Public Libraries and the Internet 2006: Study Results and Findings*. Tallahassee, FL: Information Use Management and Policy Institute, Florida State University. Available: http://www.ii.fsu.edu/plinternet/

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Figure 46 (cont'd): 2006 Successfully Networked Public Library Critical Success Factors.	
Critical Success Factor	Discussion
Virtual services	Key services include the library's ILS, subscription databases, virtual reference, and any "self-service" items such as requesting a hold on current best sellers.
Service plan	Develop a marketing plan for each network service that you offer that identifies who the audience is for the service, how the service will promoted to the audience, how the groups will use the service (i.e., identify potential conflicts, scheduling, etc.), identify ways to evaluate if the service is being successfully used, include a plan for gathering evidence that shows each service's value. Included might be a range of library polices – take a look at policies that other libraries have found necessary.

Source: Bertot, J. C., McClure, C. R., Jaeger, P. T., & Ryan, J. (2006). *Public Libraries and the Internet 2006: Study Results and Findings*. Tallahassee, FL: Information Use Management and Policy Institute, Florida State University. Available: http://www.ii.fsu.edu/plinternet/

Role of External Partners in SNPL Development

SNPL Roles with External Partners

All of the successfully networked public libraries visited recognized early that they could not become so without external support³³ beyond that traditionally given by local and state governments. A distinctive, defining, characteristic of the SNPL libraries was their proactive approach to partnering. SNPLs did not wait to be invited. SNPLs did not passively wait for support to "just happen." They actively scanned for potential partners and then actively sought them out for further discussion. SNPLs conduct regular environmental scans, engage, apply, negotiate and match needs with potential funding sources, and then SNPLs successfully deliver results that match or exceed donor and external supporter expectations.

SNPLs often used external support to strategically advance their network services to the next level. For example, most of the libraries visited obtained their first networked workstation with external support, external support funded the move from dialup to broadband connections, standalone workstations were networked together, and computer labs were acquired using external funds. External funds allowed the public libraries to introduce new networked service and prove its worth. This in turn provided these libraries with persuasive evidence when they sought internal operating funds for these now established networked services. The SNPLs visited were distinguished by their efforts to actively seek and find external sources of funding. External funding often enabled these libraries to advance to the next level of network service provision, demonstrate its worth, and embed the new service funding in internal operating.

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³³ External support is used here to mean aid (may be financial, in kind or other) applied for or received beyond traditional sources such as local government appropriations and direct state aid.

Who are the Key External Partners in SNPL Development?

None of the libraries studied would be as successful without the assistance of external partners or other internal units within local government. Successfully networked public libraries external partners may include:

- 1. **City and county governments:** In some cases these entities are the principal source of library funding. In other cases, the library forms its own taxing district. In either case, a positive working partnership is a common element in SNPL development;
- 2. **State libraries:** (for a list see Chief Officers of Library State Agencies Member profiles http://www.cosla.org/>. This relationship is discussed in more detail below;
- 3. National (ALA, PLA) and state library associations: (for a list see ALA. State and regional chapters. http://www.ala.org/ala/ourassociation/chapters/stateandregional/stateregional.htm. SNPL managers interviewed mentioned four key roles: advocacy for continued funding at local state and national levels and related to library policy (CIPA, Internet filtering, privacy), continuing education and training opportunities, fostering communication, and establishing communication mechanisms and standards development;
- 4. **Library systems**: See State Library and system role below;
- 5. **Consortia and multi-type library consortia** (MLCs): See State Library and system role below:
- 6. **Multi-state consortia and cooperatives** (e.g., Bibliographical Center for Research (BCR) http://www.bcr.org/ and Online Computer Library Center (OCLC) http://www.oclc.org/). See State Library and system role below.
- 7. **Federal agencies**: In particular, the Institute of Museum and Library Services (IMLS) http://www.imls.gov/ and its Library and Services and Technology Act (LSTA) funding administered, through the State Libraries. See below for further discussion;
- 8. **Private foundations**: Including national (e.g., Bill & Melinda Gates Foundation, U.S. Library Program http://www.gatesfoundation.org/Libraries/USLibraryProgram/), state (e.g., Tocker Foundation http://www.tocker.org/index.html assisting small rural libraries in Texas), or local library level (e.g., Joe Barnhart Foundation http://www.beeville.net/JoeBarnhartFoundation/Index.htm focused on the Joe Barnhart Bee County Library, Beeville, TX or the Michael & Susan Dell Foundation's http://www.msdf.org/ Wired for Youth http://www.wiredforyouth.com/ centers at 10 Austin Public Library http://www.ci.austin.tx.us/library/ branches.).
- 9. **Industry and corporations** who may offer public libraries free or discounted products and services (e.g., Verizon's Access New Jersey http://www.accessnewjersey.net/anj/index.asp).

External funding and partnerships were essential to the development of successfully networked public libraries.

Roles of ALA and the Bill & Melinda Gates Foundation in SNPL Development

All participating SNPLs viewed both ALA and the Bill and Melinda Gates Foundation as essential to the SNPL development process. Their contributions were so central in enabling successfully networked public libraries to flourish that their efforts were almost taken for granted. That these organizations would lend their prestige to the SNPL effort focused positive attention on public libraries, their role in serving the underserved, and the importance of network technology and services to society.

In the case of ALA, four contributions were frequently mentioned by SNPL managers interviewed. ALA provided a communication forum essential to the advance of many new ideas. ALA provided continuing education and training to diffuse network technology and services' new ideas. ALA advocated for funding and developed and advocated for policies essential for the provision of networked services. ALA, through the Washington Office, kept members informed as to federal activities and issues – especially on important topics such as the E-rate.

In the case of the Bill & Melinda Gates Foundation, SNPL managers interviewed mentioned several key contributions. They stated that the Gates Foundation's contribution was both unexpected and generous. The Gates Foundation often played two important roles serving as a catalyst to advance the library to the next level of networked service and at the same time sustaining previous advances until local support arrived. The Gates Foundation hardware, software, training, and documentation were high quality raising the standard in each of these areas.

State Library, System, and Consortia Role

State Libraries continue to play a significant, often primary, external role in enabling public libraries to become successfully networked in the states visited. All SNPLs had positive working relations with and had received funding from their State Libraries. State Libraries receive funding from their state governments and also receive federal Library Services and Technology Act funds from the Institute of Museum and Library Services. State Library Development units have established working relationships with libraries in their state often through regional library systems fully or partially supported by the State Library. In some states, member supported library systems and multi-type and multi-state library consortia also play significant roles in SNPL development.

State Libraries, library systems, and consortia have used a variety of mechanisms³⁴ to influence or enable public libraries to become successfully networked including:

- 1. **Funding Agency**: direct aid, targeted or competitive grants, group discounts, funding opportunity scanning and grant application assistance;
- 2. **Demonstration models**: State Library and agency web sites, funded demonstration models that may deserve wider application within the state (and beyond);

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³⁴ These roles are not exclusive to State Libraries, systems, or consortia. Other external partners may also play these roles in certain states and contexts. For example, the Bill & Melinda Gates Foundation supports WebJunction http://www.webjunction.org/, a national effort to foster and coordinate library communication.

- 3. **Innovation champion**: environmental scanning, communication coordination, and regular review of professional and trade literature;
- 4. **Library consultants**: direct provision of professional advice and support;
- 5. **Continuing education and training:** ongoing training in deployment and use of information technologies, telecommunications, information policy, etc.
- 6. **Evaluation**: annual and targeted surveys, community focus groups, management of key statistics and performance measures;
- 7. **Regulation & standards:** knowledge local governmental technology guidelines and regulations and of Z39.50 and other standards such as those from the National Information Standards Organization;
- 8. **Advocacy**: negotiating with other external partners, lobbying federal, state, and local governments, advocating for policy development, and advocating for library marketing and promotion activities.

These mechanisms are further described in Appendix 8. State Libraries, systems, and consortia review these support mechanisms when a new network idea, technology, application, or service becomes available to further support SNPL development. The roles that these external partners play are not uniform across states (or in the case of systems within the states). The roles they play depend very much on the local context and the needs of local libraries. See Appendix 9 for an example of how two State Libraries served as Internet Service Providers (ISP) and how one State Library continues to do so, while commercial providers now offer ISP services used by SNPLs in the other state.

External Partners: Future Roles

The function and meaning of external partner, funding agency, vendor, system, consortia, and state library are all in flux and are all being re-examined with the "first generation library network" nearing completion and the next generation library connection already on the horizon. One model emerging from SNPLs and State Libraries has transformed the local public library into a virtual, multi-owner, information department store, bazaar, or farmers market. Like the present Internet, the emerging "next generation" public library 2.0 may have more than one answer to such basic questions as: Who owns what, who provides what service from where, who can use the service, what will it cost, who pays, when, how? Will there be a local public library anymore? Will there be a regional, state, or national public library instead, or none at all? Will Google predominate, or all of the above and more? Interesting, tip-of-the-iceberg trends mentioned by the SNPL manager interviewed include:

1. **Who will provide "local" reference**: The reference desk is all but gone in Orange County Florida. If you are at a branch or if you are at the main library, talk to Olive³⁵ and

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³⁵ Picture a box with video screen and a phone on a desk with chair, or a telephone call box with video screen sitting where the reference desk used to be. A person with a reference question picks up the phone and is immediately connected with a reference librarian in a backroom of the main branch somewhere via videoconference hookup. In small libraries this might be the library's reference service. At Orange County's 14 branches (Land area 907.6 square miles, Total Population: 1,013,947, Circulation 650,000+ per month) this is the reference desk. At the main library as well as the branches the paper reference collection is all but gone, the reference desk is vacant. At malls or shopping centers, this could be part of a satellite library. See Orange County Public Library. (2006). *Olive*. (PLA presentation).

- videoconference uplink to the "back room" reference experts. Or have you had a "chat" or sent an e-mail to the virtual reference site near you when your local branch was closed (See Appendix 7 for state wide virtual reference sites)?
- 2. **Subscription databases**: State libraries buy them, systems and consortia buy them, and so do individual libraries. Yet, by the time a public library user fights his way through the authentication process, let alone the search procedure, the average Internet user already has a "good enough" answer and is 4 minutes into the latest music video. One wonders whether public library subscription databases persist solely because they are so deeply embedded in librarian identity.
- 3. **Virtual branch hosting (Open source)**: A number of State Libraries are working together to develop remotely hosted local public library web sites using open source software. The State Library maintains the web site on its server for free. Local libraries provide the content using pre-established forms. This effort should advance the less successfully networked public libraries to the next level. This is an important achievement in and of itself. Equally important may be what the State Libraries learn about requirements for multi-state partnering to develop or improve essential network services. However, this asset cannot be fully utilized until potential partners can work out a roadmap for participants to follow. SNPL managers already know that the partnerships must be win-win for all. Early experience suggests that working out the process may be more time consuming than the actual development.
- 4. **Open source ILS**: The State Library of Georgia is developing an open source integrated library system called Evergreen http://open-ils.org/>.
- 5. **Open source federated searching**: The State Library of Texas, like other states is considering a federated search engine. This software can search for items across a number of different databases (within constraints). The selection was an open source product from Index Data http://www.indexdata.dk/keystone/. Houston Public Library, already paying for a federated search engine, was quick to switch.
- 6. **Desktop workstation maintenance**: Soon, if the New Jersey State Library Hub project http://www.njstatelib.org/LDB/Technology/hblbtoc.php has its way, it will be doing remote desktop maintenance on New Jersey public library workstations in addition to providing safe, reliable, and secure network connections at any speed you want. What has worked well in enterprise computing ought to work well in the statewide library enterprise.
- 7. **Collections**: Audio books, e-books, Internet collections, video clips, music, reviews, films: some you own, some the library owns, some you pay, some you don't. Some are in your local library.

The issues are not new, but a threshold in connectivity and access has been crossed. Who will public library external partners be? How will their roles be redefined? Will the public libraries re-establish their identity in the virtual world now that they are connected?

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 $< http://72.14.203.104/search?q= cache: Sbayabzmal8J: www.placonference.org/handouts/264_Gronlund_Gregg_083158_032906011241.doc+Information+Systems+Department+Head+Orange+County+Library+System&hl=en&gl=us&ct=clnk&cd=4>.$

³⁶ See, for example, Oregon's Plinkit project (Public Library INTerface KIT) http://www.plinkit.org/. The open source software is Plone based on Zorp.

Measuring Library Services and Resources

Principal findings from interviews with SNPL managers include:

- 1. **Time**: SNPL managers state that few of their colleagues have time to measure the quality and impact of all the various services and resources being provided. The issue is not one of ability, nor is it of knowledge or motivation. It is simply lack of time. As a consequence, the most useful measures are pre-collected, pre-analyzed data already attractively packaged in a variety of formats for a variety of audiences. The most effective set of measures were embedded in a PowerPoint budget hearing template where a library only had to plug in pre-collected local library data.³⁷
- 2. **Success requires evaluation**: Many library managers do not have time to evaluate, but many SNPL managers do considerable ongoing evaluation of library services.
- 3. **Useful measures: Piloting & Valuing**: SNPL managers find two types of measures especially useful. These measures that:
 - Help pilot or manage network operations of services better, and
 - Show the value of network services.³⁸
 - Network use low yet still need value evidence: Network service usage at many SNPLs is thought to be "low" although usage is often rapidly growing. Showing value without high use is problematic. For example, it may be that for some libraries, they are in the unusual position of having e-metrics available, but do not yet see the need to employ them.
 - **Relationships matters**: Network services are often funded today without valuable, usage-based evidence. Instead, SNPL managers often obtain network funding based on prior relationships, proven worth in other areas, or because the library has made positive contributions in other areas of their local government's mission or operations.

These principal points raised by SNPL managers interviewed are discussed more fully next.

Who has Time to measure?

Repeated comments by the SNPL managers interviewed made the researchers ask: Who are the potential SNPL evaluators? Who has the time to evaluate SNPL management or value? Several clusters of public libraries offered the following:

1. **Libraries with no staff to dedicate to evaluation, even part time:** Librarians at most small libraries, which make up the majority of libraries, barely have enough time to run the library and little time to evaluate it. These librarians would give priority to quick,

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³⁷ Iowa Library Service Areas and the State Library of Iowa. (2006). Telling the library story toolkit. http://www.statelibraryofiowa.org/ld/tell-library-story. The State Library of Iowa will host about 300 Iowa public web sites using this approach.

³⁸ The TexShare cost avoidance data is a useful measure that matters that shows the value of a network service, in this case State Library provided subscription databases. This data shows how much an individual Texas library saves because it does not have to individually subscribe to the core set of TexShare Databases. Texas State Library and Archives Commission. (2002 to present). Costs avoided by local libraries due to the TexShare Database Program. http://www.texshare.edu/programs/academicdb/costavoidance.html>.

- easy, ready-to-use evaluation tools, or opt to outsource the evaluation piece. Lack of time may preclude tutorials, long explanations, moderately complicated or new evaluation techniques.
- 2. **Libraries with staff to dedicate some time to evaluation**: The next level up are those libraries that have one or more librarians that can dedicate some portion of their time to items beyond the day-to-day running of the library. These librarians would still give priority to quick, easy, ready-to-use evaluation tools.
- 3. **Large urban libraries**: These libraries have planning and evaluation staff and are further distinguished by the need for more sophisticated management-valuing techniques (due to size and competition).
- 4. **Library systems**: Evaluation or training in evaluation techniques may be a service that a system offers to member libraries. One expected form of evaluation may be to show the system's value.
- 5. **Libraries with the same Integrated Library System (ILS)**: Libraries visited had an active interest in learning to use their ILS statistical modules, particularly to improve operational efficiency, workload management, and for piloting. On its face, this is a need best met by ILS vendors or ILS interest groups. Yet, based on interviews with SNPL evaluators, there is much to be accomplished.
- 6. **Intermediaries:** This group may include library systems, consortia, and State Library, Library Development Coordinators and State Data Coordinators, even consultants. One role that this group may play is to train public library managers in evaluation techniques, including required annual statistical survey completion, annual budget presentations, technology planning, and strategic planning. Another role, now that libraries are connected, might be to do the evaluation and remotely presenting usable results via the network.

In sum, the potential SNPL evaluators and measures may be different than assumed. What are needed are not necessarily new measures but practical, easy-to-use, plug in/templates that yield ready-to-use presentations.

What Types of Evaluation Packages/Templates are needed?

One suggestion offered is to construct evaluation packages and templates around recurring public library evaluation needs. Those interviewed mentioned: annual budget hearing, annual statistical report, annual report (good indicator of whether a library has staff dedicated to evaluation), technology plan, funded project evaluation (LSTA funded projects may require output measurement), status of electronic services (reports to Boards and local funding agencies showing value of new and expensive workstations, equipment, Internet connection, etc.), status of any new service report, workload management reports (impact of new or modified service on staff and resources), and summer reading reports.

Piloting Measures

Piloting measures enable managers to manage and adjust workloads and technology operations to match changes in network services or to account for the introduction of a new service. For example, what staff adjustments will need to be made if patrons are allowed to place

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up to 10 remote holds? What additional bandwidth will be needed if the library adds a 20-workstation lab?

Pilot data are produced primarily by application software report modules, for example, an ILS statistics report module or a print manager software module. Often, library staff does not spend a lot of time collecting data, however, many statistics reporting modules are poorly designed. The data produced are often incompatible even with early versions of the same product, let alone other products. The data sometimes count different things with the same descriptor. The report modules produce output in variety of formats or in a non-standard format. All of these issues are well documented but seldom addressed by software vendors. As soon as local libraries develop workarounds, a new version is introduced or the vendor is sold. Data collection time is down; data analysis time is up. The most successful SNPL managers are patient and persevere.

Valuing Measures without Value (based on Use) Evidence

The traditional method of demonstrating value is to collect evidence of high use of service and combine it with the logical arguments: use is high customers want it. What are libraries to do when those interviewed suggest that network service use is low at SNPLs? "I would never use my usage data when seeking funds because use is not there yet," noted one SNPL director. Peer comparison is rare because the network service data from peer libraries are generally not available. Cost per use comparisons are not done because the costs per use are so high. Comparison with traditional services is not done because traditional services had the better numbers. Aggregation of traditional and network measures (e.g., gate count plus virtual visits) are generally not done either because the network service data are so low it did not add much. Many SNPLs note that network services use is rapidly rising. Reports that feature the rapid growth in use of a network service may be persuasive.

In general, public library network services are currently supported for the following reasons according to SNPL managers interviewed:

- 1. The library manager believes they are worthwhile;
- 2. External funding agencies are increasingly persuaded of the worth of network services;
- 3. A regular stream of data is provided that shows increasing use (rather than high use) of network services or evidence (e.g., testimonials) is provided that shows that the service is valued; and
- 4. The high costs of network services are mitigated by external funding.

But the sense was that the evidence was not there *yet* to make the traditional high use, high value continued/increased funding argument.

The Role of Advocacy in SNPLs

SNPL Managers are Advocacy Leaders

SNPL managers were distinguished by their belief that advocacy is a central part of their job description. Distinguishing characteristics include:

Proactive: A distinguishing characteristic of all of the SNPLs visited was their proactive approach when compared to other public libraries. Library managers actively and systematically looked for opportunities to:

- Show what the library was already doing to address local, state, and regional issues;
- Partner with others to address these issues together, even if it was *only* to provide information; and
- Look for funding for the libraries as part of these proactive, joint problem-solving efforts
- SNPL managers did not wait to be invited nor did they wait to be discovered. SNPL managers were out knocking on doors.

Opportunistic: The SNPL managers were masters at perceiving an opportunity to make the library's worth visible to others and to obtain funding or support particularly when the source did not mention libraries, but did not exclude them either. SNPL managers all recognized that financial support was only one of many types of support that successful libraries need.

Prepared: SNPLs were often, but not always, better prepared than peer government agencies to make their potential contribution known and to make their funding case. Part of the preparation included assembling relevant evidence and arguments based on the evidence.

Positive relationships with other local leaders: SNPL managers had a year-round positive relationship with elected and appointed officials and government agency and nonprofit leaders, as well as community opinion makers. SNPL managers were not meeting strangers when they went to the annual library budget hearing.

SNPL managers made a number of other observations, several of which are quickly summarized here:

- 1. A good argument supported by evidence is generally not enough to ensure funding a positive relationship may tip the scales in the library's favor.
- 2. Library managers did not receive advocacy training in library school. The training received was ad hoc, on the job and unsystematic.
- 3. All knew of fellow library managers who were reluctant to engage in advocacy. "It's not my job." The general feeling was that with training these reluctant library managers could find their niche in the library advocacy effort.
- 4. Library managers and appointed government officials both noted that the stereotypical library manager appeared to be aloof or absent from local government activities. Some attributed the lack of involvement to a partially or fully independent funding stream. All agreed the stereotype created a barrier to productive relations.

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SNPL managers were distinguished by their proactive, opportunistic, prepared attitude, and their engagement with the community and their fellow community leaders approach to advocacy for their library.

Advocacy absent Usage Evidence

So how do SNPL managers advocate for network services and their libraries as they encourage the use of these services? SNPL managers had prompt responses that were variations on a theme:

- 1. Establish a relationship with key local funding agencies. "You have made a mistake if the only time that you have seen local funding decision makers all year is when you come to the annual budget hearing with your hand out."
- 2. Show up at county and city council meetings.
- 3. Be viewed as a contributing unit of city and county government (even if the library is separately funded).
- 4. Be proactive, do not wait for opportunity to knock, seek it out;
- 5. Find out what other local government agencies' problems areas are and make the library part of their solution.
- 6. Join local business organizations and involve the library in their work.
- 7. Seek out opportunities to present the library, its services and its accomplishments to local community groups.

These activities (and others) should seek to convey the following messages:

- 1. The library is competently administered;
- 2. The library provides good services and is well regarded;
- 3. The library is actively working with other units of government, community groups, and local business to solve community problems; and
- 4. The library actively seeks partners to advance the community's agenda.

SNPL managers suggested the following "simple, if-then equation." If the library is viewed as well-run and well-regarded, supportive of other city and county government agencies, elected officials, community groups, and business, then when the library says a new service is important and ought to be funded, even absent evidence of need or use, the new service is likely to receive support. This suggests several alternative measures for assessing a library's value; see Appendix 10 for a summary.

Advocacy summary

The successfully networked public library managers interviewed were distinguished by their advocacy for their libraries and network services with local and remote partners, funding agencies and users. Key elements of their advocacy approach include the following:

1. Have a good "product;" Be competent and run an efficient and effective library: SNPLs were successful in much of what they set out to do in the provision of traditional

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- as well as network services, and that was a common perception among local and external partners.
- 2. **Recognize that advocacy is required**: SNPL managers appear to operate from a different mindset than other library managers. SNPL managers recognized that being good at what you do is insufficient. Taken to an extreme, "it could be like pausing to navel gaze at the OK Corral." Instead, "there are a whole set of other skills they never taught you in library school" that are required. Advocacy is critical. Repeatedly tell others how good you are, tell others how the library contributes to solving their problems, and tell others what the library needs to do the job.
- 3. **Identify the key stakeholders**: SNPL managers knew, almost by intuition, who were the key local and external stakeholders. Those users, funding agencies, opinion leaders who could positively influence the library's success and in particular the success of the library's network services.
- 4. **A logical argument may not be enough**: Libraries could once make a logical argument and obtain support, such as "There at the founding;" "Champion of democracy;" or "Cultural bastion." Often, that is no longer the case.
- 5. **Logical argument** + **compelling evidence still may not be enough**: There is a great deal of work necessary to get local library managers up to speed on the argument and evidence requirements of library advocacy. Libraries should focus on how to identify locally relevant arguments and to then assemble suitable evidence. See for example the EDMS project³⁹ just underway. What if the evidence is not there or the argument plus evidence is insufficient to persuade funding agencies in light of other local funding demands?
- 6. **Presentation matters too**: It is essential that the library director can provide a clear, understandable, and graphic presentation about the library, its needs, its accomplishments, the importance of technology and public workstation computer with related services, the library vision, and the resources needed.
- 7. **Building a positive relationship**: Another key SNPL manager difference was that they were out of the building, proactively engaged with local government, community groups, local business, and other key stakeholders solving community problems and regularly highlighting the library's role and the library's network services role in their solution.

Effective library advocacy is a learned skill; most often it is learned on the job. There are effective roles for external partners in assisting local library advocacy efforts. Elements of effective advocacy as identified by the SNPL managers interviewed include: begin with a competent, well run library and craft locally relevant arguments, supported by compelling evidence, that are well presented and build on a pre-established, positive relationship. SNPL managers point out that advocacy is not doing one thing well, but balancing a number of essential elements effectively. Effective advocates need an annual plan of advocacy events.

Conclusions and Recommendations from Case Sites

This section presents a number of conclusions, recommendations, and next steps based on the findings of the case site portion of the study. These are offered in the context of actionable

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³⁹ FSU. Information Institute. (2006). Evaluation Decision Management System (EDMS). http://www.ii.fsu.edu/projects/effective-eval/.

items to assist in sustainability and continued enhancements to the connectivity and network-based services and resources of SNPLs.

The connection issue

The perception among the State Libraries and SNPLs visited is that the only public libraries not connected are the ones where everyone is waiting for the library director to retire or there is some unusual barrier where existing telecommunications and wireless solutions will not work. As an SNPL director summarized, "Some days I worry that we have spent too much time and too much of our capital getting everyone connected and not enough on producing Internet content and services."

In fact, the need for greater bandwidth connections at public libraries remains a pressing issue. Library managers at the most successfully networked public libraries note that when planning for library bandwidth capacity demands for the near future, with podcasts, streaming video, and other large downloads prevalent, obtaining needed bandwidth may be difficult or costly.

Next Step: Use the connection

The general consensus was that the near-term will be used to capitalize on this "first generation of library connectivity." Issues to be addressed include:

- 1. **Establish a virtual identity for public libraries**: All of the SNPLs visited were aware of the findings of the OCLC Perceptions study in the fall of 2005. 40 The study suggested that today's Internet users rarely thought of the library when meeting their information needs. The most successful (both in traditional and network service provision) of the successfully networked public libraries were worried the most.
- 2. **Build relationships with traditional and new partners**: Existing and near-term library broadband connectivity will permit remote delivery of services within the library, virtual branch services, infrastructure services, services to library staff, and direct services to library patrons wherever and when ever they are needed. Technology will continue to press while political, economic, legal, and security issues and agreements slowly get worked out among traditional and new library partners.
- 3. **Develop public library branded, network based, content, and services:** The long-term goal of many libraries is that when people use the Internet, they would be aware of and use the useful, high quality, probably free, content and services offered by the public library. SNPLs recognize the need for public library branded content and services. Who will produce the content or services or organize public libraries to produce public library branded content and services? What will be the content? What will be the service?
- 4. **Library branded content?** At present, the principal, networked, public library content consists of digitized, local, special collections (audio, video, photographs, maps, historic

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⁴⁰ OCLC. (2005). *Perceptions of libraries and information resources study*. Dublin, OH: OCLC Inc. http://www.oclc.org/reports/2005perceptions.htm. From that page: "The findings indicate that information consumers view libraries as places to borrow print books, but they are unaware of the rich electronic content they can access through libraries."

documents). Local public libraries are very interested in making more local digital content available. Often the material is made available without attention to national standards and cataloging, thus making statewide and national aggregation difficult. Branding such material may be difficult in any case. Ownership of library digital collections is questionable when it is not public domain. Public libraries have traditionally left the final processing of digital collections into commercial grade products and their retailing to others.

- 5. **Library branded services?** At present, the principal networked public library service is virtual reference, which is in its infancy particularly in usage.
- 6. **Redefine the traditional vendor relationship or bypass it?** There was a great deal of dissatisfaction with library vendor products such as subscription databases, ILSs, federated search engines, and web hosting software particularly compared with open source or freely available Internet alternatives. State Libraries and others are actively developing open source options.
- 7. **Connectivity 2.0**: Prepare for order of magnitude increases in bandwidth demand as high bandwidth transfers, such as streaming audio, e-government, video, and music become the norm. One consideration is that a connectivity threshold of what constitutes "good enough bandwidth will continue to be a moving target and ever increasing.

Importance of local library functions

The need for local, MLS-trained catalogers has been greatly reduced due to cooperative cataloging via the network process begun before the Internet. Yet the need for cataloging persists, and it even flourishes as it is reinvented.⁴¹ One unexpected need for better cataloging has come as states try to integrate semi-Z39.50 compliant local catalogs into statewide catalogs.⁴² Some see organizing the Internet as the next massive job awaiting catalogers.

A similar process is under way with locally provided reference service. Is there a need for a reference librarian or an expensive, local, reference collection when electronic databases and virtual reference services are available? Are MLS qualified reference librarians needed in every library? What qualifications do library staff members need today to provide reference services at branch libraries? Why should reference librarians be tied to a desk? Are there not Bluetooth headsets, PDA, laptops, wireless? Why shouldn't reference librarians or aides be roving the library, or be at local public gatherings, or at the mall? Some County Commissioners

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⁴¹ See for example: Byrd, Jackie, Charbonneau, Gary & Charbonneau, Mechael et. al. (2006, January 15). A white paper on the future of cataloging at Indiana University. Bloomington, IN: Indiana University Libraries. http://www.iub.edu/~libtserv/pub/Future_of_Cataloging_White_Paper.pdf.

Calhoun, Karen. (2006, March 17). The changing nature of the catalog and its integration with other discovery. Washington, DC: Library of Congress. http://www.loc..gov/catdir/calhoun-report-final.pdf>.

⁴² E.g., State Library of Iowa. Cataloging supplement. < http://www.statelibraryofiowa.org/ld/cataloging-supplement>. "During the last year it became clear that we as a library community need to improve the cataloging records in the SILO Locator < http://z3950.silo.lib.ia.us/cgi-bin/zform.CGI?SILO>. Librarians who use the SILO Locator and Interlibrary Loan know some of the problems. These include the difficulty of retrieving and searching through duplicate records for the exact same item and not being able to request and receive a particular format for library customers. Improving the records in the Locator will save staff time and make it easier to accurately fill interlibrary loan requests for a particular format."

in one state are not listening to arguments to increase small public library hours. Why should they increase hours when citizens can use a statewide 24/7 virtual reference service?

A similar trend can be seen in network and workstation servicing with the goal being remote maintenance of networks and the desktop workstation. Even the multi-State Library effort to host local public library web sites remotely raises the question of what are local public library functions and what functions can be performed at the system, regional, state, or larger levels.

The importance of the MLS and other degrees

The variety of professions holding public library management positions (let alone staff positions) appears to have dramatically increased in the last several years, evolving from just the traditional MLS to include several other fields. The library management team degrees may now include: MBAs, MPAs, and various IT, social work, and education degrees to name those encountered during the study. Even more remarkable, in SNPLs, they have all found ways for folks with these various degrees to do meaningful work together.

However, at the some of the most successful SNPLs, some traditional MLS librarians, particularly those whose education is less recent, seem to have more difficulty adapting in an environment of rapid technological change. They do not appear to be able to adapt as fast as newly minted MLS hires or hires from some other fields. But at the same time, some public library managers appear more often satisfied with the MLS graduates they are hiring, and that included those who had taken the distance education option.

Virtual branches but with only virtual funds and resources

SNPLs are quickly moving to the notion that their library web site and services has created another library branch – a virtual branch. Providing this new branch with commensurate management, staff, funds, accountability, authority, etc. as a traditional branch is still under development. In some of the libraries visited, web masters sit on the management team, they have control of a budget, and there may even be additional IT staff available. This management approach and concept appears useful and will increase in importance as community broadband penetration increases and virtual branch use follows.

Network service use: A tricky balance

Network service managers appear constrained by a number of less well-known factors when it comes to encouraging network service use. There is value to being relevant and up-to-date. Build it and they will come may not always be true, and this approach requires experimenting with new things and sometimes failing. Not every library is equipped to succeed using this approach.

The most successful SNPLs continue to be quite successful in the provision of traditional library services. Library patrons do not want the library to drop any service, as they all are successful or have strong user advocates. As a result, these libraries require new information

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technology to first make the library more efficient freeing up resources so that a new service can be offered. Then, the impact of a new service on users, staff, and infrastructure must be well enough understood so as to not overwhelm library staff.

There are infrastructure concerns like connection speed, network and hardware quality, software bottlenecks, available staff, bulky procedures, hours of operation, unions, funding, etc. These can mitigate new and exciting services, development, and implementation.

Network service usage appears to take longer to grow than most funding agencies expect. SNPL managers need to find ways to increase use rapidly before funding interest wanes. What if the network service is ready, but the community, or a key segment of the community, is unable to use it? Virtual branch planners are beginning to pay closer attention to such factors as community broadband penetration. Broadband at well beyond 769kbps is essential now and will become more important in the future.

Network service managers are identifying the constraints, relationships, and heuristics inherent in the new virtual world. For example, in simpler days, if you wanted to increase the importance and use of network services within the library, then you would increase the number of public workstations. Soon, however, those workstations had to be repaired and new software had to be installed (and it could not be done remotely) and workstations needed to be replaced on a schedule. But what is the point of adding workstations when there is not enough trained staff to assist users, when library hours have been cut, and when that formal IT training program never got off the ground? Complexity and the ability to manage it has become a significant constraint to networked services development. Can this area be defined and systematized better so that network services can be managed better and usage increased?

Measuring Library Services and Resources

Piloting Measures

SNPL managers interviewed had a great deal of interest in data, largely supplied by vendor or external software, which assisted them to manage, or pilot, their organization better. For example, when a new network service is introduced or modified, how will staff workload be affected? The present situation may be politely described as uncoordinated chaos. At present, there is a great deal of opportunity to better order network service management evaluation.

Valuing Measures

The development of national, standardized, measures appear to be in advance of their need. The current use of library network services, while rapidly growing, appears to be, in general, relatively low. Thus, network services use data cannot currently supply the evidence needed to make the logical argument for sustained or increased funding. It is likely that this situation will soon change given the apparent rapid growth in the use of library network services.

Network Service Marketing, Promotion, and Evaluation

In general, library network services at the libraries visited, like traditional library services, are not systematically or broadly marketed. The prevailing philosophies in a restricted funding environment are: I would rather spend the money on building it better in the hope that they will come. Or, do you want me to build it substandard, market the service, and possibly have the user be disappointed? Marketing and promoting public library networked services appears to be virgin territory for a number of libraries.

However, marketing may require nontraditional efforts like: learning how to resolve database authentication issues; learning how to put an icon on every public library web site; and learning that paper-based marketing is useful for web-based products and services. A particular future area of need is the development of simple, easy-to-use guidelines for network service marketing and evaluation plans. Network service plans should address basic questions like: who is the audience for the service, are there constrains on use, what management data are needed, how will the library know when the service is a success, are there data that could be collected that show the service's value to funding decision makers and others?

Advocacy

When SNPL managers were asked how they continued to obtain funding for library network services without use data, another facet of the valuing and advocacy process was revealed: the importance of individual competence, prestige, relationships, and being part of a team of community leaders seeking community improvement. SNPL managers understand this, but less successfully networked libraries may not. The study makes some suggestions for how public library leaders might increase their value to their community in this area. When a service is new and evidence lacking, community trust in a library manager's judgment may fill the gap until usage evidence picks up.

Additional research

The site visits to a number of successfully networked public libraries suggests a number of areas where additional research and study should be done. Briefly, these include the following:

- 1. Update the definition of a successfully networked public library on a regular basis. It is important to recognize that the factors contributing to being a SNPL in 2006 may not be the same factors in 2007 or 2008. Longitudinal data that redefines SNPL on a regular basis can assist libraries become more successful over the years.
- 2. Analyze high-speed connectivity. Identify what are appropriate "high speed" connectivity needs (e.g., beyond 769kbps) given the service plans and requirements of the library, better understand connectivity capacity in different library settings, and develop strategies to assist libraries to move to higher speed connectivity. In addition, an issue here is the actual bandwidth of individual workstations given how connectivity is fractionalized after entering the library.
- 3. Study the roles of public libraries in disasters and e-government. Data from the 2006 survey clearly showed a broad range of services and activities provided by libraries in support of disaster preparedness and its aftermath as well as in a host of e-government

- services (drug prescription sign-up; government services, immigration, etc.). Analysis of these services, how to use the provision of these services for local advocacy, and providing guidelines to assist libraries in the provision of these services would be important tools for libraries.
- 4. *Identify best practices in use to promote public access computing and high-speed connectivity*. Findings from the 2006 survey identified incredible community contributions from libraries in the Gulf Coast during the 2005 hurricane season. Most have not marketed or used these successes to advocate for the library; why not? And what strategies can be put in place for public libraries to better promote their public access computing and high-speed connectivity?

These are four key initiatives that could provide significant insights and assistance to public libraries as they continue to build upon their public access computing services, their information technology infrastructure, and the development of networked services to improve advocacy and funding at the local level.