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PUBLIC LIBRARIES AND THE INTERNET 2008: STUDY RESULTS AND FINDINGS

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SECTION I: Findings from the Public Libraries and the Internet 2007-2008 Survey

EXECUTIVE SUMMARY

The national survey identified a number of issues related to the current state of public access Internet and computing services provided by public libraries. The following presents selected survey key findings and their implications. The discussion is not exhaustive, but rather, serves to highlight a range of findings and implications that the survey identified. The complete set of data tables, as well as findings from previous surveys, are available at http://www.ii.fsu.edu/plinternet/.

Public Access Connectivity and Infrastructure

Public libraries face a number of issues and challenges as providers of no-charge public access Internet and computing services. As community-based public access venues, libraries employ a range of strategies to maintain, upgrade, and make available public access resources and services. The findings indicate that, although public libraries provide substantial public access services and resources across a range of areas, their ability to do so successfully is not limitless and has reached a saturation point in key areas of their ability to maintain, enhance, and grow public access technology services.

Libraries as Community Access Computing and Internet Access Points

Public libraries continue to provide important public access computing and Internet access in their communities:

- 98.9 percent of public library branches offer public Internet access (Figure 5);
- Public library branches, overall, have an average of 12 public access workstations, up from 10.7 from 2006-2007[1] (Figure 6). Rural libraries offer an average of 7.5 public computers, suburban libraries an average of 13.9 computers, and urban libraries an average of 21. The greatest growth was seen in urban and rural libraries and those that serve populations of medium and high poverty;
- In 2007-2008, 100 percent of rural, high poverty outlets provided public Internet access, a large jump from 85.7 percent last year (Figure 5);
- 65.9 percent of public library branches offer wireless Internet access, up from 54.2 percent in 2006-2007 (Figure 8); and
- 72.5 percent of library branches report that they are the only provider of free public computer and Internet access in their communities (Figure 10).

Infrastructure Challenges

The 2007-2008 survey asked a range of questions that assessed the ability of public libraries to maintain public access Internet and computing services. The questions were exploratory and provided initial views of library capacity and capabilities. Essentially, respondents reported that they face a range of challenges that are best summarized as follows (see Figures 14 through 16):

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[1] *Libraries Connect Communities: Public Library Funding & Technology Access Study 2006-2007.* Chicago: American Library Association, 2007. Available: http://www.ala.org/ala/ors/plftas/0607report.cfm.

- Buildings. Library buildings are increasingly out of space and unable to support more workstations; they are insufficiently wired to support more cable drops; and they are insufficiently wired for the power requirements of desktop computers and patron-provided laptops.
- Cost. Respondents indicated that funding workstation replacements, upgrades, bandwidth enhancements, and a range of other services related to public Internet access and computing (e.g., online access to databases) was difficult and increasingly problematic.
- Staff. Respondents indicated that limited staff skills and time were factors in their decisions to not to upgrade their public access infrastructure. Lacking dedicated IT staff proved a particular challenge to many public libraries. In fact, 39.6 percent of libraries indicated that they derive technology support from a non-IT staff person in their library, with 44.1 percent of rural and 40.1 percent of suburban libraries relying on this type of support as compared to 26 percent of urban libraries (Figure 30).

Together, these data further support a trend regarding the management of public access technology resources identified in the 2006-2007 survey, and indeed, as Figure 14 indicates, libraries identified staff and cost issues as two of the top three most significant challenges facing their maintenance of public access technology services. A new dimension from the 2007-2008 survey, however, is that libraries are accelerating their attempts to add more public technology service. For example, the percentage of libraries that now provide wireless access increased to 65.2 percent from 54.2 percent last year (see Figure 8). And yet, as Figure 23 shows, this service was simply added to the existing telecommunication connection as 74.9 percent of libraries indicated that the wireless connection shared the library's existing connection (up from 49.7 percent in 2006-2007). The implication from this finding is that the overall quality of the library's bandwidth at the individual workstation level is likely declining.

Quality of Public Access
The survey's findings demonstrate that public libraries provide substantial public access Internet and computing services. Increased library network services, however, are outpacing bandwidth improvements in many libraries.

- 73 percent of public libraries report connection speeds greater than 769kbps, up from 62.1 percent in 2006-2007 (Figure 17). Of all libraries, 38.9 percent have a T1 (1.5MBps) connection, indicating that libraries are increasing their use of this connection speed. The disparity, however, is quite large between urban libraries (51.6 percent with a T1 connection) and their rural counterparts (32.1 percent with T1).
- At the same time, 57.5 percent (up from nearly 52 percent in 2006-2007) of respondents reported that their connectivity speed is insufficient some or all of the time (Figure 20).
- Some 82.5 percent of respondents report that they have insufficient availability of workstations some or all of the time, up from 77.5 last year (Figure 22).

- Nearly 75 percent of public libraries report that their wireless connections share the same bandwidth as their public desktop computers. This is up substantially from the nearly 50 percent of libraries that reported a shared connection in 2006-2007 (Figure 23).
- Over 90 percent of libraries have time limits imposed on the use of their public access workstations (Figure 24). Of those libraries that have the same time limits for all computers, 45.7 percent have time limits of up to 60 minutes, and over 30 percent limit use to 30-minute sessions (Figure 25). Of those libraries that have time limits, 45.9 percent manage the user sessions manually (Figure 29), imposing a burden on staff.

Together, these data point to a technology infrastructure that is increasingly unable to keep up with the demands of the networked environment – an environment that requires increasingly sophisticated computers, substantial bandwidth, and a range of resources and staffing that libraries continue to indicate that they are struggling to support – but continue to do so to the extent possible. Moreover, in order to accommodate more users, public libraries have imposed time limits on their public access workstations, and the management of this process consumes staff time and effort.

Extensive Range of Library Services Provided

The data document a substantial – and growing – range of Internet-based services provided by public libraries. In reviewing the types of Internet services provided that public libraries consider to be critical (Figure 31), the overall growth in public access Internet services (Figure 32 and 33), technology training (see Figure 39), and expanding services such as e-government (Figure 40), it is clear that public libraries offer their communities a significant amount and range of service. And for many communities, the public library is the only agency offering free access to these services.

As Figure 31 indicates, public libraries provide an impressive array of services that are critical to the communities they serve. Rising to the top are education resources and databases for K-12 students (78.7 percent), services for job seekers (62.2 percent) and access to government information (55.6 percent).

More specifically, libraries broker and provide access to a wide range of Internet services and resources (Figures 32 and 33), including:

- Licensed databases (87.7 percent, up 2 percent from 2006-07);
- Homework resources (83.4 percent, up 15 percent);
- Audio content, such as podcasts and audiobooks (71.2 percent, up 33 percent);
- Digital reference (62.5 percent, up almost 5 percent);
- Gaming (57.7 percent); and
- E-books (51.8 percent, up 13.5 percent).

Also, as Figure 33 shows, public libraries continue to incorporate user technologies into their public access technology offerings, by allowing users to access and store content on

USB storage devices (e.g., flash drives, portable drives) or other devices (72 percent), digital camera connection and manipulation (37.4 percent), and burn CDs/DVDs (34.7 percent).

It is important to note that libraries provide a range of technology training to their patrons. Indeed, a vast majority of libraries (73.4 percent) offer information technology training of some form (see Figure 39), and these training efforts provide information literacy skills (47.5 percent, up from 45.7 percent in 2006-2007), offer technology training to those who would otherwise not have any (39.5 percent, the same as in 2006-2007), help students with their school assignments and school work (38.4 percent, up from 35.2 percent in 2006-2007), provide general technology skills (38.3 percent, up from 37.6 percent in 2006-2007), and help patrons complete job applications (22.9 percent, up from 21.5 percent in 2006-2007).

An emerging and increasingly significant service that public libraries provide involves e-government – that is, access to, use of, and instruction related to federal, state, and local government information, forms, and services (Figure 40). A vast majority of public libraries – 74 percent – indicate that their staff members provide as-needed assistance to patrons for understanding how to access and use government Web sites, programs and services. Another 51.9 percent of public libraries report that staff members provide assistance to patrons applying for or accessing e-government services, and 28.6 percent of libraries provide immigrants with assistance in locating immigration information, Web sites, and other immigration-related services and resources.

The challenge for public librarians is the degree to which they can maintain and/or expand upon these Internet services while ensuring the bandwidth, infrastructure and trained staff necessary to support these services for millions of library users.

Funding Technology and Public Access Services

The survey again asked libraries to identify their technology budget expenditures by a broad range of categories by fiscal year – staff salaries, hardware, software, and telecommunications. Respondents once again found it difficult to provide answers to these questions, as there was a roughly 50 percent drop off in question completion on these items compared to the completion rate on other survey questions (see Figures 41 through 65). Discussions with librarians completing the survey indicated a range of reasons for their reduced ability to answer the technology budget questions accurately. These include the following:

- Inability to respond to the questions as asked. For some respondents whose libraries do have technology budgets, they were unable to report the technology expenditures as requested due to their library's internal or city/county budgeting processes.
- Lack of knowledge regarding technology expenditures. Some respondents indicated that their libraries have a general technology budget, but that they do not formally track individual technology expenditures.

- Lack of a technology budget. A number of respondents, particularly those from smaller rural libraries, stated that their libraries do not have a separate technology budget and that all funds are expended from a general operating budget. In short, there is only ad hoc technology budgeting in these libraries.
- Time factor. Some respondents simply indicated that they were unwilling to take the time to complete the budget questions, as the questions were time consuming.

With this limited knowledge of expenditures related to Internet services and infrastructure, public library planning for future Internet services and infrastructure continues to be problematic. In addition, this limited knowledge of expenditures related to Internet services and infrastructure also limits how well the librarians can evaluate the purchase and use of this technology. Until public libraries gain a better understanding of their technology-related expenditures through better record keeping, they will be unable to improve their overall management (planning and evaluation) of technology in the library as well as ability to advocate for library technology support.

Moving Connectivity and Public Access Forward

Public libraries continue to prepare for the future of their public access Internet services, resources, and infrastructure, but are struggling to do so. As indicated below, public libraries face a number of challenges.

Augmenting Public Access Infrastructure

Public libraries plan to add, replace, or upgrade workstations and make other enhancements to their public access computing and Internet access services in the coming year:

- 15.9 percent (down from 17.2 percent in 2006-2007) of public library branches plan to add more workstations within the next year, while 26.1 percent of public library branches (up from 21.7 percent in 2006-2007) are considering doing so (Figure 11);
- 52 percent (up from 50.1 percent in 2006-2007) of public library branches plan to replace some workstations within the next year. Of that 52 percent, 24 percent have plans to replace a definite number of workstations, with an average replacement of 6.9 workstations (Figure 12); and
- 11.6 percent plan to add wireless access within the next year, which means that if they do so, by the end of 2008 over 77 percent of public libraries will offer wireless access (Figure 8).

These data demonstrate the continual cycle of upgrades and enhancements that connectivity and computers require. However, the strategy pursued increasingly by libraries is one of replacement and expansion through wireless access that relies on user-owned devices (though some libraries do provide laptops for use within library buildings). Further, this strategy also results in some degradation of overall bandwidth to individual workstations and other devices requiring Internet connectivity.

Significant Challenges Remain

Challenges remain as public libraries continue to improve their public access computing and Internet access services:

- 57.5 percent (up from 52.3 percent in 2006-2007) of public library branches indicate that their connection speeds are inadequate to meet user demands some or all of the time. This is particularly significant as overall public access library bandwidth increased somewhat since 2006-2007 (Figure 20);
- 17.1 percent of respondents reported that their current connection is the maximum speed that they can acquire, 21.2 percent cannot afford to increase their bandwidth, 19.7 percent indicated that they had no interest in increasing their bandwidth, and 17.1 percent indicated that they could increase their bandwidth but had no plans to do so. Thus, 75.1 percent of libraries indicate that they will not be increasing their bandwidth for a range of reasons – affordability, ability, interest, or availability (Figure 19).
- 56.1 percent of public library branches have no plans to add workstations in the next year (Figure 11), largely due to space factors (77.7 percent), cost factors (75.9 percent), and the availability of electrical outlets, cabling, or other infrastructure (36.4 percent);
- 42.4 percent of public libraries do not have a schedule for replacing or adding computers;
- Rural public libraries, as compared to suburban and urban libraries, face a range of challenges in a number of key areas such the number of hours open (38.5 hours per week, compared with 50.8 for suburban and 53.1 for urban libraries), bandwidth available (34.6 percent of rural libraries have less than T1 speeds compared with 19.8 percent of suburban and 7.1 percent of urban libraries) and ability to replace public computers (46.8 percent of rural libraries have plans to replace computers in the coming year, compared with 61 percent of urban libraries) (Figures 2, 17 and 12); and
- Libraries that do not offer services or offer limited Internet services (e.g., databases, e-books) also indicated that they cannot afford to purchase and/or support the service(s) (63.6 percent), library computer hardware/software will not support the service(s) (46.3 percent), or library policy restricts the provision of the service(s) (42.8 percent) (Figure 38).

In summary, public libraries indicate that they are increasingly unable to meet patron demands for services due to inadequate technology infrastructure, costs associated with operating and maintaining that infrastructure, and bandwidth quality/availability issues. Thus, while the number of people visiting public libraries and taking advantage of these Internet services continues to climb, libraries face a number of challenges to providing high quality – or, in some cases, even adequate – public access technology services and resources. If the trends described in the 2007-2008 survey continue while Internet and Web-based service demands expand, public libraries may find themselves reducing networked services and having reduced overall quality of bandwidth and technology infrastructure.