Emerging Role of Public Librarians as E-Government Providers

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Abstract
Libraries increasingly play an integral role as service providers in E-Government systems, but little has been done to assess the scope or trajectory of citizen needs in libraries. This multi-method exploratory study used a series of interviews, surveys, workshops and reference logs to identify trends in E-Government in public libraries, the E-Government support roles of public libraries, and citizen expectations from public libraries regarding E-Government services. The study found that librarians answered questions about the IRS and taxes, children and family services, and immigration services among others. Most patrons reported that they used the library for internet service because they did not have any other form of internet access.

1. Introduction

In an effort to become more efficient, governments are moving more information and services to the Internet [1, 10]. As part of this transition, some agencies have begun to use technology and E-Government to justify the elimination of staff, many of whom provide face-to-face program support [1, 5]. The result is fewer agency staff able to assist government program applicants and beneficiaries.

This increase in E-Government at the expense of agency staffing raises a number of issues regarding government service delivery and support. In particular, as fewer government agency staff are able to assist existing and potential beneficiaries, citizens seek a range of assistance elsewhere. One such institution is the public library. As local agency offices close, more citizens use the public library to [2, 7]: use free access to computers and the Internet; receive computer and Internet skills training; search for government service-related information and forms; seek government program assistance; and receive assistance in accessing government websites, navigating program requirements, and completing online forms. In short, the need for government agency program and service support has not diminished, but rather, it is possible that some agencies shifted the burden of support to other entities.

Although E-Government offers the potential to increase the efficiency and effectiveness of government services, E-Government as a means to reduce staff and service support may limit this potential [10]. This is particularly the case if local agencies such as public libraries — where staff members are neither program experts nor case workers — are expected to compensate for the reduction in government agency staff and services. This paper presents findings from an exploratory study that assesses the impact of E-Government on public libraries, the E-Government support roles of public libraries, and citizen expectations from public libraries regarding E-Government services. For the purposes of this paper, the term “citizen” will be used to represent all residents of the state of Florida, regardless of nationality or country of citizenship.

2. Role of public libraries in E-Government

The E-Government Act of 2002 states the goal of E-Government as enhancing “governmental functions and service,” achieving “more efficient performance,” and increasing “access to Government information, and...citizen participation in Government” [14]. Since the passage of the E-Government Act, E-Government has quickly become an increasingly popular element of service delivery at the federal, state and local levels. If E-Government services are planned and executed well, they allow government agencies to increase effectiveness and efficiency [19], and can increase citizen trust in government [4].

The challenges that libraries encounter in providing E-Government vary geographically, as planning and execution of E-Government service varies between states, municipalities, and counties [15]. Even different agencies within county governments approach E-Government in a number of different ways, and with varying levels of success [3, 13, 16].

In addition to increasing effectiveness and efficiency of services, governments have increased their use of E-Government in an effort to cut operating costs [7, 17, 18]. The Florida Department of Children and Families’ (DCF) eliminated almost ten thousand
staff positions between 1999 and 2007 with the introduction of its ACCESS Florida E-Government program, three thousand of which are attributable directly to the ACCESS Florida initiative [15]. The DCF ACCESS program is a “modernized public assistance service delivery system... based on streamlined workflows, policy simplification, technology innovations and partnership with local community organizations” [5]. This program largely eliminates DCF offices, instead, funneling applicants and program participants to a network of Community Partners for assistance with applications and administration of accounts. DCF now counts public libraries among its Community Partners – agencies and organizations willing to provide Internet access and service assistance applicants. A close examination of the DCF Community partners list reveals that, in most counties, libraries are the only partners charged with providing free Internet access to any citizen who enters requesting service. Other partners are limited to specific constituencies.

Since 1994, the Information Use Management and Policy Institute at Florida State University has conducted a national survey of public library internet connectivity. Between 1994 and 2007, Internet availability in libraries grew from approximately 21% to over 99% [9]. Bertot, Jaeger, Langa and McClure write, “…by meeting user information needs through public access computing and Internet services, public libraries were able to serve a larger community need for access to e-government services and resources” [11]. The 2008 national survey found that approximately 95% of public libraries provide as-needed assistance to patrons with understanding and using E-Government resources [8], while 69% help with E-Government applications and services. Sixty percent of respondents indicated that the public library was the only free public internet access point in the surrounding community[8]. Thus, public libraries provide substantial E-Government service and resource support.

One can view Government to Citizen E-Government as a three-part system comprised of the public, the government agency involved (and its E-Government implementations), and the networks and points of access that allow citizens to participate in E-Government with that agency. By seeking E-Government information at the library and requesting assistance from librarians, citizens have added a fourth component to the system: the local librarian as a surrogate agency service provider. In this capacity, the librarian facilitates what ideally develops into discourse around the design of the E-Government implementation in question. As Bertot, Jaeger and McClure write, “to develop citizen-oriented E-Government services that achieve cost savings implies that governments...actively seek to discover what citizens want from E-Government” [7, p.137] Dittrich, Ekelin, Elovaara, Eriksen & Hansson’s [19] 2003 article also provides a useful framework for understanding the implications of this “fourth party” service provider. The article outlines a four-part chain of interaction in E-Government development that includes developers (agencies), local designers (developers), service providers (libraries) and citizens. According to the framework proposed by the Dittrich et al., it is in the best interest of all parties to collaboratively develop effective ways to collect and channel patron feedback for successful, iterative development of the E-Government system [19].

Citizens in need of government services do not bear sole responsibility for involving librarians in E-Government service. Some agencies refer citizens to public libraries to access web-based forms or applications that are not available in their offices [12]. The DCF ACCESS website encourages applicants to “apply for public assistance (food stamps, temporary cash assistance, and Medicaid) using the internet wherever it is available including home, a library, or a school” [5]. Because they are, in many cases, the only organizations offering free Internet access in their communities [9], the public library plays an instrumental role in leveling out differences in citizen access to personal computers and the Internet, moving the E-Government system away from exclusion of segments of the population, and toward “design for all” [4]. In this role, many libraries have begun to evolve into “one-stop shops” [8] that now include assistance with government service programs, access, and delivery. This is a substantive departure from a longstanding role of public libraries that serve as access points to government information and forms (i.e., tax forms during tax season). For example, though librarians provided tax forms in the past, they did not serve as tax accountants who assisted patrons complete and file their taxes. Now, citizens come to the library seeking government program and services assistance, not simply access to information. This shift seems to occur in direct relation to government agencies cutting back in their provision of program support services due to the adoption of E-Government technologies.

3. Purpose and Objectives

The purpose of this exploratory study was to identify the E-Government related needs of citizens who access government related information at the library, and to identify current library E-Government practices in order to provide practical guidance to public libraries in meeting the needs of local
community members they serve. Specifically, the study addresses the following questions:

1. What E-Government services and resources do public libraries typically provide?
2. What types of E-Government assistance and/or resources do members of libraries’ community members request?
3. Why do citizens seek E-Government services and resources at the public library?
4. What barriers and issues do librarians face in providing E-Government services and resources?

Answers to these questions can help ascertain E-Government needs from a user perspective, but also foster understanding the impacts of E-Government on community-based support organizations such as public libraries.

4. Methodology

The study was exploratory and used an iterative multi-method approach. Limited to public libraries in the state of Florida, the study used:

- Interviews with public librarians. The interviews explored and identified the E-Government services public librarians provided, and the issues encountered by public librarians in providing E-Government services and resources.
- E-Government workshops. The study team conducted five E-Government workshops in key geographic regions (panhandle/Northwest Florida, Northeast Florida, central Florida, Southwest Florida, and Southeast Florida) to explore E-Government service provision by libraries in the regions.
- Survey of workshop attendees. The survey asked librarians to identify the most frequently provided E-Government services, and to identify issues encountered by patrons seeking E-Government assistance in local libraries.
- Librarian-maintained reference log files. The log files captured specific E-Government service and resource transactions provided to users in libraries.
- User survey. The survey explored the reasons why users came to the public library for E-Government services and resources, library services requested and used to engage in E-Government services, and issues encountered while engaging in E-Government services. The survey was available in English, Spanish, and French Creole. The survey was primarily in print format, though a web-based Survey Monkey version of the survey was available in English.

The interviews and workshops informed the development of the log file and user surveys. User surveys and log files were pre-tested to ensure their usability and ability to capture valid and reliable data.

4.1 Sampling Strategy and Data Quality

The study team employed a combination of purposeful and cluster sampling for the study’s data collection efforts. The study team identified and selected public librarians who provided E-Government services in their libraries, both face-to-face and through developed web sites that contained a range of information regarding federal, state, and local government services. The study team also conducted workshops in four key geographic regions throughout the state of Florida (Central, Southeast, Southwest, Northwest) to explore library E-Government involvement and services. Given the diversity of the state of Florida and its various communities, the regional workshops provided the study team with variations in E-Government services due to user needs in each of the regions. The individual interviews provided more in-depth information regarding librarian efforts to develop and offer E-Government services and resources in their libraries.

For the librarian logs and user surveys, the study team developed a cluster sampling approach to select libraries for participation based on:

- Library diversity — e.g., urban, rural, and suburban, and geographic spread throughout the state of Florida;
- Community diversity — e.g., poverty, immigrant, language, and a range of other library community factors; and
- Willingness to participate.

In all, 74 libraries agreed to participate in the study by maintaining library logs and distributing user surveys. The study team provided surveys in multiple languages based on librarian indications of the communities that the libraries served.

The user surveys and log files were maintained and available for two weeks in March 2008 (March 18-30, 2008). Overall, the study team interviewed nine public librarians individually, conducted workshops with 145 public librarians throughout the state, and received 415 librarian logs, and 210 usable user surveys. A total of 46 usable librarian surveys were collected during workshops.

The data are limited due to the exploratory nature of the study and the purposeful and cluster sampling approaches. The five methodologies, however, provided detailed and overlapping findings regarding issues associated with providing E-Government services and resources in public libraries. By using an iterative and multi-method approach, the study team identified and triangulated perspectives on E-
Government in public libraries from both the public library and user populations.

5. Findings

The following is a brief summary of survey and librarian log data. Section Six provides an integrated discussion of these and other findings, including interviews, librarian surveys and workshop responses.

Figure 1 illustrates participants' reasons for accessing E-Government information at the library, as opposed to other locations. Fifty two percent of respondents selected "I don't own a computer," followed by "I don't have access to the internet at home or at work" (selected by 42.4% of respondents). The next most frequently selected response (related to the first two) was "The internet at the library is free" (selected by 40% of respondents). Besides the given options, the two most commonly mentioned other reasons were "The library has better Internet access/computer equipment than I have at home or work" and "the library has books/resources that I need to access for other reasons."

Figure 2 illustrates respondents' most frequent searches for E-Government information. Roughly 33% of respondents reported that they use the library to search for state E-Gov information, while almost as many reported that they searched for Federal (31%) and City/County Information (28.1%). Approximately 21% of respondents surveyed indicated that they used library computers to search for information on the Florida Department of Children and Families. The most commonly stated "other" responses included "research" and "email."

Figure 3 describes problems patrons encountered in searching for E-Government information at the library. The most frequently selected response for this question was "I needed help with the Internet". Almost as many respondents mentioned that time limits on library computers presented a problem for them while searching for E-Gov information. Four percent of respondents responded that they felt that library staff did not have sufficient knowledge to help them complete their searches. The majority of respondents who indicated "other" responded that they had no difficulty seeking government information on the Internet at the library.
Figure 4 illustrates the type of E-Government data requested by library patrons. Only instances of requests for specific types of information were counted. Requests for general information related to E-Government topics were not counted. Approximately 40% of all patron requests were related to finding or completing online government forms and/or applications. The next most frequently requested type of information was contact information (approximately 8% of requests), followed by websites (approximately 4%).

Figure 5 illustrates the distribution of E-Government-related questions at the reference desk and public use terminals. The coding for this chart was developed inductively from librarian reference logs. The overwhelming majority of recorded requests were related to the IRS, taxes, and upcoming stimulus payments. Approximately 39% of requests were related to taxes. The next most frequent requests were related to the Florida Department of Children and Families, food stamps and public assistance. Approximately 15% of logged requests were DCF related. In addition to these two agencies, which represented a large portion of the requests made, a number of other agencies and services emerge. Education related requests (School enrollments, Voluntary Pre-Kindergarten, FAFSA/student loan); legal advice, forms and information; United States Citizenship and Immigration Services requests; County-level property searches and ownership information; and government job searches all hovered between 3% and 6%.

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<tr>
<th>Patron E-Gov Challenges</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
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<tbody>
<tr>
<td>Library staff didn’t have sufficient knowledge to assist me</td>
<td>4%</td>
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<tr>
<td>Computer had time limits and I didn’t have time to finish</td>
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<td>24%</td>
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<td>Forms were difficult to use</td>
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<td>13%</td>
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<tr>
<td>Websites were difficult to use</td>
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<td>16%</td>
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<tr>
<td>Needed help with internet</td>
<td></td>
<td></td>
<td></td>
<td>28%</td>
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<tr>
<td>Other</td>
<td></td>
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<td>17%</td>
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**Figure 3: Patron E-Gov Challenges**

**Figure 4: Librarian log: Requests by Data Type**
6. **Key Issues**

The study found a number of issues raised due to local, state and federal E-Government implementations, as described in the ensuing sections.

6.1 **Access and the digital divide**

The transfer of some services from face-to-face to Internet-only highlights the gap between those who have and do not have access to the Internet (and thus E-government information and services). The digital divide continues to exist, to the detriment of citizens without access [6]. In many communities, public libraries provide the only free access to the Internet [7], and thus the only link to E-Government.

In some cases, E-Government is a matter of convenience. Some patrons seek websites and forms that make application for a service simpler than walking into an agency office or calling a phone number. In other cases, E-Government is the only option. The Florida Department of Children and Families, which deals primarily with a low-income constituency, has moved its services and applications to an Internet-based application system. Since DCF closed many of its offices, applicants have begun seeking help at public libraries. In many locations in South Florida, the only way to make an appointment at the United States Citizenship and Immigration Service office, which processes immigrant visas, permanent residence and citizenship applications, is to use the web-based appointment system. E-Citizenship and E-Participation rely on access to the Internet, making access an issue of democratic participation.

But access is only part of the divide, and a basic one [5]. Users require computer and Internet use training, information resource selection, web site
navigation, and a range of other types of assistance to engage in successful E-Government efforts. It is not the case that the library simply opens its doors and provides access to a computer and the Internet. Rather, that technology access leads to a number of other types of assistance requests and needs from government service applicants and beneficiaries that agencies are unable or unwilling to provide.

6.2 Resolving life events: The evolving role of the librarian as case worker

The increased emphasis on E-Government in public libraries threatens to alter the role of the librarian from neutrally situated information provider to that of social worker [11]. Instead of being asked to provide information, reference staff report being asked to help patrons resolve problems, advise patrons on which forms they need to use, and assist patrons (some of whom are limited by mobility, language, or other problems) in completing applications. Patron requests ranged from help with enrolling children in childcare, to finding family members, to setting up businesses, to help going through the trademark process. Increasingly, librarians are taking on the role of the social worker, referring patrons to one agency or another, and becoming more involved in patrons' personal lives.

In addition, the needs of citizens change over the course of the year. Librarian surveys, conducted in late 2007, suggested that the greatest volume of E-Government services were provided on behalf of the Department of Children and Families. In contrast, librarian log data collected in early 2008 suggested that most E-Government services were provided on behalf of the IRS. Together, the data demonstrate that E-Government-related information needs change fluidly with external life events, such as tax season, and DCF application deadlines.

Thus, evolution of librarian as information provider to case worker has multiple and profound implications. Not only is this a substantial shift in librarian duties, but it also requires librarians to become facile with multiple agency programs. And, given that user life events can cut across multiple agencies, programs, and eligible benefits, the knowledge and skills librarians need are numerous. A number of librarians commented that they had no training in being a social case worker and felt uncomfortable serving in that role.

6.3 Skills and training

Librarians expressed concern and anxiety that they are unprepared to provide the services requested by users. While some agencies have made significant efforts to reach out to libraries and community centers that serve their target populations, many have not made any efforts to provide training to non-agency staff. As a result, libraries that embrace the role of E-Government service provider must pour significant resources into training staff, most often without assistance from local agencies. In short, librarians that engage in the provision of E-Government services and resources are self-taught and can often lack an essential programmatic perspective.

There is a need for increased communication and cooperation between libraries and the government agencies on state and local levels. Local agency offices are often unaware of the level of service libraries are able to offer, and direct patrons to the library for services they may not provide. They also argued that state agencies often shut down local offices without consideration for the restrictions of the local library's funding resources, or space.

To some degree, librarians do not have a choice whether to assist or not assist someone needing help in using E-Government resources or services. If the person is present and needs assistance then the librarian will likely try to assist them as best they can — regardless of the level of training the librarian has received regarding E-Government. Thus, an area for additional research is the quality of the E-Government services that librarians can provide — especially in the current Florida context of severe budget cutbacks, reduced library hours of operations and increasing overall library use.

6.4 Liability

As library staff members are asked to assist patrons with forms and applications, and to handle more sensitive personal information (e.g., social security numbers, payment information, date of birth, etc.), librarians and administrators grow more concerned over possible liability issues. This anxiety includes civil and criminal concerns. Fear over possible lawsuits against library staff, administrators, and city/county councils, and criminal consequences associated with entering false information on behalf of library patrons lead some libraries to avoid E-Government altogether. A few local library administrators restrict librarians from providing assistance with E-Government forms. In some cases, library staff members are instructed to limit E-Government help to locating forms as requested, and to provide no help in interpreting or completing applications. But overall, there are no clear guidelines as to "how much assistance" in filling out
forms requiring a range of personal information and explanation is too much assistance on the part of the librarian.

6.5 Forcing Technology Management Changes

Library public access computer and Internet resources are not limitless. Libraries only have a certain number of public access computers available for use. Indeed, 82.5% of libraries report that they have insufficient public access computers some or all of the time and 93.4% have time limits on workstation use (primarily between 30 and 60 minutes) [7]. Given this, libraries have had to purchase, install, and maintain public access management software that manages user workstation registration process, enforces time limits, and resets the computers (e.g., cleans the cache, removes user work, etc.) after each session. Time limits, imposed to alleviate public access computer and Internet access demands on limited library resources, are often in direct conflict with E-Government service requirements, which can often take considerable time and effort. Librarians either have to try and remove the time limit features (which is not always possible), set up E-Government workstations (thus removing one or more workstations from the general public use and degrading overall service to the library’s community), or risk the loss of E-Government application and other information by users. Thus, E-Government service provision can impose a substantial management and infrastructure burden on libraries.

6.6 An unfunded mandate: Resources and burden shifting

When state and federal agencies send citizens to county-funded public libraries to access E-Government forms, schedule appointments and seek information instead of providing that information in the traditional office setting, they add to an overall increase in the number of patrons requesting E-Government services. Library services are provided by local tax revenue (primarily) and libraries’ budgets are significantly stressed. The increase in E-Government users taxes the human and financial resources of already strained local libraries, increasing costs associated with staff time (and salary), computer equipment, and Internet bandwidth. Although Florida’s budget reductions represent an extreme case, reduced library funding is a national issue, made worse by downturns in the economy.

Agencies that choose to exchange face-to-face services for Internet based services are, in many cases, actually shifting personnel and operating costs to locally funded organizations (like libraries) that provide “free” public Internet access and assistance. Local agency offices are often unaware of what level of service libraries are prepared to offer, and direct patrons to the library for services they may not be in a position to provide. State agencies often shut down local offices without consideration for the restrictions of the local library’s funding, resources, or space. While some local libraries are able to absorb the costs associated with a spike in use, others cannot, and risk closure when local agency offices close their doors.

This burden shift amounts to an unfunded mandate from state agencies to local, city and county governments that fund local library systems. Libraries are put in the position of providing services that they may not have the staff, expertise, equipment, or funding to deliver, or risk the ire of a patron base that provides the library’s funding. Because public libraries are not legally mandated, community support is sometimes the only protection a library has at its disposal to maintain its operations. The extent to which reductions in state staffing at DCF, for example, have resulted in increased costs for public libraries in Florida, reductions in other library services, and staff time to meet E-Government service demands is an area for future investigation.

7. Conclusions and Recommendations

This study, although exploratory, demonstrates that public libraries are an integral part of Florida’s E-Government system as service providers as citizens seek assistance with local, state and federal government information, services, and resources at the library because of limited access elsewhere. Also, E-Government service requests at libraries often include requests for librarian assistance.

Through additional interviews with library staff and administrators, surveys, log file collection, and other efforts, the Information Institute plans to continue collecting data on E-Government adoption and planning in public libraries. These efforts are necessary to further document and verify the initial findings identified in this study and explore additional issues and topics.

The findings indicate an increase in E-Government requests from library patrons that signal a shift in information needs that, given current trends in E-Government, will not reverse in the foreseeable future. Based on these developments, the study points to a number of recommendations:
• Make proactive decisions about the level of E-Government service libraries are able to provide, and ensure that citizens are aware of the library’s E-Government service policy. Library resources are not unlimited, and individual libraries need to decide what E-Government services they are willing to provide, at what level of support, and what level of resource expenditure.

• Develop, formalize, and publicize a statewide consensus on E-Government service levels. Such an approach would offer much needed guidance to libraries concerned with liability, as well as standardizing a system of service levels. Such service levels could vary by size of libraries, numbers of public access computers available, and a range of other considerations. The benefits to such an approach include library E-Government service provision within the resource availability of the library as well as creating an opportunity for dialogue between libraries and state government that could highlight the issues associated with burden shifting.

• Create a collaborative resource sharing initiative between libraries at a statewide level to reduce the burden on individual branches to seek and maintain silos of information on state and federal agencies. A number of library systems have already begun developing extensive local E-Government resources for patron use. Organizing these disparate projects into a single, cohesive consortium prevents duplication of efforts and maximizes limited resources.

• Collaborate with state agencies on the design, implementation, and updates to E-Government services and resources. The more that libraries are involved in the deployment of E-Government services, the more informed librarians will be regarding agency programs and services. This in turn will enable librarians to be more effective providers of E-Government services and resources. This also may serve to foster closer ties to selected agencies and lead to better support for librarians needing assistance with aspects of programs, applications, and websites.

• Implement an agency charge-back mechanism. Libraries can reasonably estimate the cost of assisting a user complete a particular agency’s form. For example, a calculation is possible based on computer and Internet use, staff time, training services, and other requirements to successful form completion. Based on such a calculation, a library can bill agencies on a per-transaction basis for the services that they provide. Agencies engage in such efforts routinely through outsourced services – for example, social services routinely contract with private case workers on a per-case basis. Thus agencies have working models in place for such fee-for-service approaches.

• Increase library staff training in E-Government. This would increase the level of service, reduce staff anxiety, and save time and effort. From the agency point of view, libraries represent a valuable service resource, providing a fairly reliable point of contact with target populations. Libraries also have the potential to provide vital feedback to agencies and E-Government program designers, suggesting improvements that could increase citizen adoption of E-Government. It is in the interest of local and state agencies to partner with libraries, providing training, information and assistance on a consistent basis.

The connection between libraries, state, and local agencies falls at the crux between open government, access to government services and resources, and the digital divide. Investing in library E-Government training, library technology, and consortium building is vital to maintaining equal access to government services and information, particularly E-Government services. As governments and agencies reduce costs and staff associated with service provision through technology, it is essential to realize that citizens still need and seek assistance from individuals and community-based organizations. The combination of public access technology and information professionals who know how to seek and find government information that the public library provides makes the public library an institution of first choice for assistance by a significant number of people.

8. References


