

LINKING PEOPLE TO THE GLOBAL NETWORKED SOCIETY

**EVALUATION OF THE ONLINE AT PA LIBRARIES PROJECT:
PUBLIC ACCESS TO THE INTERNET THROUGH PUBLIC LIBRARIES**

Final Report For:

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EXECUTIVE SUMMARY

This report provides an evaluation of the OnLine at PA Libraries project which was initiated in the Fall of 1996. The project, funded by Bell Atlantic, and administered by the Pennsylvania Department of Education's Office of Commonwealth Libraries and the Schuylkill Intermediate Unit, has had a significant and important impact on the provision of Internet-based information services and resources to the residents of Pennsylvania. The original project goals were to:

- Provide public access to the Internet through Pennsylvania's public libraries.
- Provide library users with timely information for educational, research, economic development, and recreational purposes.
- Ensure that trained library staff are available to help the public find the information they need in an online environment.

The report documents that these goals were, in fact, accomplished. Moreover, the report identifies many additional impacts and benefits that resulted from the project.

The evaluation, which began October 1996 and was completed October 1997, was guided by specific research questions such as: What are the scope, reach, and dimensions to the OnLine at PA Libraries project? How much Internet activity and of what types are taking place in participating libraries? What types of users access the Internet connection and to what types of services and activities do they connect? What are the costs for such connectivity and various types of network activities and services? How has access to and use of networked information resources and services affected participating libraries in terms of economic competitiveness, education, productivity, quality of life, and other indicators of socio-economic well-being?

These, and other key assessment questions were answered by use of a range of data collection techniques including surveys of librarians and users, site visits, focus groups, interviews, and other techniques.

From the viewpoint of project participants -- be they library directors, library staff, users, or local government officials -- the project has clearly been successful. The list of the various benefits and impacts that have come to the library, the users, and the community overall, is significant and consistent across most libraries. Some of the most important indicators of the success of the project are that it:

- Linked networked information to users and resolved a range of their information needs that otherwise would not have been resolved; there were

numerous “success stories” of how public access to the Internet greatly assisted users;

- Removed some of the isolation of the community by providing a “link” between the participating libraries’ communities and the ideas, resources, and information in a global setting;
- Provided access to a range of networked information resources and services that otherwise could never have been obtained by participating libraries;
- Brought new users into participating libraries that otherwise may not have used “traditional” library services or resources;
- Increased the visibility and credibility of participating libraries;
- Provided valuable publicity for participating libraries as a public access point to state-of-the-art technology and information services;
- Served as a catalyst for participating libraries and their staff to move into the electronic networked environment; and
- Provided a workstation and additional information technology that otherwise could not have been purchased or obtained by participating libraries.

Other key indicators of the success of the project include the following:

- 26% of users of the public access workstation were *new* users, i.e., they had not previously visited the library.
- The public access workstation attracts both expert -- 44% -- and beginning users -- 48%.
- 35% of users of the public access workstations had no other means to access the Internet *except* from participating OnLine at PA Libraries. Perhaps equally interesting is that the other 65% *do* have access to the Internet elsewhere (e.g., work, home, school), and still choose to use the public access workstation.
- Users of the workstations (on a scale of 1= Very much so and 5= Not at all) rated finding the information they needed on the Internet, the ease of using the Internet via the library, and the importance of having access via the library between 1.7 and 2.2. Overall, therefore, users found that gaining access to the Internet, using the workstation, and the information found on the Internet to be of value.

- In terms of major benefits from the project, 48% of participating library directors thought the expanded availability to reference sources was critical; and 32% thought the major benefit was attracting new users to the library.

The study concludes with a discussion of key issues raised by the OnLine at PA Libraries project and lessons that have been learned from this effort that can be incorporated into future efforts. Specific recommendations include building on the OnLine at PA Libraries project with future projects, developing new roles for Pennsylvania librarians and libraries, and developing a statewide strategic planning effort to continue to take advantage of the evolving global networked environment for the benefit of Pennsylvania residents.

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PREFACE

In Fall 1995, the President and CEO of Bell Atlantic spoke to Pennsylvania's First Lady about his interest in helping libraries. The First Lady is a professional librarian who directed a Pennsylvania library system before her husband was elected Governor. The First Lady and the Administration saw the need for libraries to provide access to the Internet. They suggested that Bell Atlantic work with Gary D. Wolfe, Deputy Secretary of Education and Pennsylvania's Commissioner for Libraries. The Deputy Secretary met with Bell Atlantic's President and Vice President for External Affairs to discuss a possible proposal. The Deputy Secretary said he was interested in bringing the Internet to small rural libraries. The President of Bell Atlantic was excited at the prospect. Such a project was what he had in mind.

The Deputy Secretary and his staff from the Office of Commonwealth Libraries, also known as the State Library of Pennsylvania, began work on a draft proposal. They worked with a committee that included representatives from the Schuylkill Intermediate Unit (SIU); the Executive Director of the Health Sciences Library Consortium; the Education Secretary's Special Assistant for Technology; the Deputy Secretary and selected staff from the Commonwealth's Office for Information Technology; and representatives from the Governor's Office.

The committee discussed and revised the draft proposal after a conference call with Bell Atlantic employees. The Pennsylvania Department of Education submitted the final proposal to Bell Atlantic in December 1995. After some negotiation with Bell Atlantic, the proposal was approved and granted the Commonwealth \$750,000 to bring the Internet to Pennsylvanians through small, rural public libraries.

On April 17, 1996, Bell Atlantic presented the \$750,000 check to the First Lady at a ceremony at the East Shore Branch Library of the Dauphin County Library System. After the grant award, the First Lady demonstrated the World Wide Web to elementary students from a neighboring school.

The Office of Commonwealth Libraries contracted with the SIU to implement the grant and provide technical consultation and assistance, to handle equipment orders, and to coordinate training with State Library staff. The Director of Library Development handled implementation of the project at the State Library. The SIU hired an individual to provide technical coordination of the project while the SIU manager continued to provide professional technical consultation. Most planning and implementation of project objectives involved these three people.

Public libraries had to apply to participate in the project. Appendix A is a copy of the application form used by libraries to participate in the project. Applications were due by June 15, 1996, and applicants had to agree to:

- Place the equipment (comprised of a computer workstation with software and a printer) in an accessible public service area, on furniture supplied by the participating library, and make the workstation available for the public to use when the library was open.
- Install one phone line to the workstation.
- Participate in the project at least two years after the grant year and pay certain start-up and continuing costs (the grant application had an estimation of these costs. Local costs included phone line installation, telephone bill for local line, Internet provider fee, software/hardware maintenance and training/technical support after the grant year).
- Have at least one public service staff member attend all required training sessions.
- Agree to participate in public awareness activities.

One hundred eighty-eight libraries applied and all were accepted into the project. Participating libraries were notified in July 1996.*

The SIU ordered the equipment in August, the vendor configured it in August and September 1996, and it was shipped to participating libraries in October and early November. Basic training was held in October 1996. Libraries began offering the service as early as November 1996 with the last libraries coming online in February 1997. A committee of reference librarians, district library center (DLC) consultant librarians, SIU staff, and Office of Commonwealth Libraries staff met in February and March to plan the advanced training, which was held in April and May 1997.

The SIU contracted, in October 1996, with Charles R. McClure and John Carlo Bertot to conduct an evaluation of the project. They completed the evaluation in October 1997, resulting in this report.

 * Due to lower than expected telecommunications costs (almost all libraries found Internet Service Providers within their local calling areas), the State Library was able to add 55 more local libraries to the project in August 1997. Most of those new libraries began providing service to the public by September 1997. Data reported in this study do not include these 55 libraries.

ACKNOWLEDGMENTS

This study could not have been completed without the assistance of numerous individuals and organizations. The active involvement of these many individuals contributed to the success of both the OnLine at PA Libraries project as well as the success of the evaluation effort.

The authors would first like to acknowledge the assistance of Barbara Cole, Director of Library Development at the Office of Commonwealth Libraries. Ms. Cole provided ongoing assistance to the study as Project Liaison by providing information, suggestions, and ideas for refining data collection instruments. She was especially helpful in encouraging librarians to respond to the various surveys and arranging for site visits. Her support for the project and her direct involvement in a range of project activities was an important contribution to this effort.

Equally important were the contributions from James S. Fogarty, Director and Michelle Misiewicz, OnLine at PA Libraries Coordinator at the Schuylkill Intermediate Unit (SIU). As with Ms. Cole, these individuals provided a wealth of information related to participating OnLine PA Libraries, reviewed data collection instruments, and offered advice on a host of topics related to project activities. We are especially appreciative for Ms. Misiewicz's management of the data entry and keyboarding of the responses to the various surveys administered during the evaluation effort.

Another group of participants who deserve acknowledgement are the librarians at the four sites visited by the authors. These individuals did an outstanding job of organizing the logistics for the site visits, providing the authors with a range of background information, encouraging local librarians and users to attend focus groups, and going "beyond the call of duty" to make the site visits a success. We appreciate not only their efforts for organizing the site visits but their hospitality and friendliness as well.

Finally, we wish to thank the many librarians and staff participating in the OnLine at PA Libraries project who completed the various surveys. We especially want to thank them for their efforts in distributing the user survey and helping to produce the responses from almost 2,000 users of the public access workstation during May 1997. Their assistance was instrumental in obtaining the high quality data that forms the nucleus of Chapter 2.

Charles R. McClure
John Carlo Bertot
October 15, 1997

CHAPTER 1

EVALUATION OF THE ONLINE AT PA LIBRARIES PROJECT: PUBLIC ACCESS TO THE INTERNET THROUGH PUBLIC LIBRARIES

The OnLine at PA Libraries project (henceforth referred to as the project) has provided an important impetus to rural libraries in the state of Pennsylvania to become part of the evolving global networked information society. The project began at a fortuitous time when there was both funding available from Bell Atlantic and significant interest from the public library community in connecting to the Internet and providing new services to their communities. The project was also timely as it demonstrated what *could be* done, statewide, with some new resources, initiative, interest, and committed and dedicated librarians.

The original project goals were to:

- Provide public access to the Internet through Pennsylvania's public libraries.
- Provide library users with timely information for educational, research, economic development, and recreational purposes.
- Ensure that trained library staff are available to help the public find the information they need in an online environment.

Specific project objectives to be accomplished during the 18 month effort that began April 1996 included:

- Establish additional points of Internet connectivity to serve those regions of the state currently lacking local access.
- Utilize optimal communications pathways to ensure equitable and inexpensive online access throughout the state.
- Equip 300 public libraries to offer a graphical, user friendly interface to the Internet.
- Provide basic and advanced training attended by at least 500 library staff members who increase their skills to better help the public navigate in the online environment.

By September 1997, at the end of the project:

- At least 500,000 Pennsylvanians per week will access online information sources through the Internet at their public libraries.

- Based on survey results, 80% of public access users will report the information they find helps them make wise decisions in their personal, work, and public lives.

These were ambitious goals and objectives. The State Library, Bell Atlantic, the Schuylkill IU, participating public libraries and librarians, and others associated with the project committed significant effort, time, and resources to making it successful.

The project operated in a context where Pennsylvania currently ranks 36th of the 50 states in per capita support for public libraries; continues to fall behind other states in its support and development of new services for public libraries; and as a result, has low circulation per capita and smaller staffs than other states (*Philadelphia Inquirer*, June 1-4, 1997). Yet despite these and similar statistics of limited support for public libraries in Pennsylvania, the OnLine at PA Libraries project has been successful.

The project has provided a statewide demonstration of what *can* be done to quickly and significantly improve public library services statewide; to connect public libraries to the Internet and provide a range of new services and resources to their communities; and to “jumpstart” libraries, librarians, and citizens into the global networked society. This report describes these (and other successes) and identifies related key issues for government officials, the library community, and local communities to discuss as public libraries continue to move into the global networked society.

INTRODUCTION

The idea of a "networked environment" encompasses a range of electronic networked activities and services. Minimally, the networked environment includes information and media services, products, hardware and software, and resources that are received by users via electronic networks. In this environment, many information services are provided by local, regional, national, and international networks. Locally developed information services (i.e., from a library, computing services, private sector firms, individuals, or others) may comprise the majority of the networked environment.

There is no easy or straightforward method to operationalize a definition for a network. It may be helpful to think of a network as comprising these components:

- Technical Infrastructure: the hardware, software, equipment, communication lines, and technical aspects of the network;
- Information Content: the information resources available on the network;

- **Information Services:** the activities in which users can engage and the services that users may use to complete various tasks;
- **Support:** the assistance and support services provided to help users better use the network; and
- **Management:** the human resources, governance, planning, and fiscal aspects of the network.

These five basic components suggest the multi-dimensional nature of electronic networks in public libraries and the extent to which the networks can be described, defined, and then evaluated.

Many organizations in general, and public libraries in particular, have built significant networks and connected to the Internet as part of the evolving National Information Infrastructure (NII). As of Spring 1997, 72.3% of public libraries are connected to the Internet, as compared to 20.9% in 1994 (Bertot and McClure, 1997). The overall public library level of Internet connectivity varies greatly, however, by the population public libraries serve, with 1997 data suggesting that public libraries in larger population areas having significantly higher (100% for libraries with population of legal service areas of greater than one million) rates of Internet connectivity than public libraries in smaller population areas (56.3% for libraries with population of legal service areas of less than 5,000). There is also a significant difference in public library connectivity between urban (86.9% for central city libraries) and rural (66.0% for non central city libraries) libraries. Such differences also are true for Pennsylvania. Thus, public library Internet connectivity has not been equal nor even throughout the Nation nor Pennsylvania. As a result of the Project, however, access has become significantly more equal and even across the state.

There is a great deal of electronic networking activity occurring in the public library, statewide, and K-12 environments. These innovative and creative initiatives demonstrate what can happen when the private sector, federal, state, and local governments, community-based stakeholder groups, and private sector organizations collaborate to create new means of working together, doing more with less, and reducing the overlap of services. In doing so, network creators assume that such initiatives will provide better government services and promote greater citizen prosperity, productivity, and education at all levels through the effective and efficient use of advanced networking technologies (Office of the Vice President, 1993; National Information Infrastructure Advisory Committee, 1995).

PUBLIC LIBRARY TELECOMMUNICATIONS AND NETWORK POLICY CONTEXT

The current policy environment in which public library and statewide networking activities occur is one of rapid change. The telecommunications legislative and regulatory frameworks, as well as federal library-related legislation, continue to evolve and create new opportunities for public library-based networking initiatives. Perhaps more challenging than this fluid policy context is the speed with which new technologies continue to emerge and provide new challenges and needs for technology planning and implementation at both local library and statewide levels.

The Library Services and Technology Act

On September 30, 1996, the President signed into law the Library Services and Technology Act (P.L. 104-208) (LSTA). LSTA marked a change in the direction of federally-funded library initiatives over its predecessor the Library Services and Construction Act (LSCA) in several key ways:

- LSTA consolidates portions of the Higher Education Act (HEA) that related to a variety of library-related aspects. In doing so, LSTA creates the Institute for Museum and Library Services (IMLS) as the federal agency responsible for the administration of LSTA;
- LSTA applies to nearly all types of libraries, not just public libraries;
- LSTA expands the scope of library activities beyond those traditional services of books and buildings to electronic networking activities; and
- LSTA requires states to evaluate and report on the impact of LSTA-funded initiatives.

Taken together, these key components of LSTA create a new federal-state-library funding environment that emphasizes collaboration, performance, and technological innovation.

The Government Performance and Review Act

Espousing the virtues and needs of effective and efficient government requires that citizens and federal government managers alike benchmark government services against some performance measure(s) and/or indicator(s). In a step towards developing such performance measures, the Congress passed the Government Performance and Results Act (P.L. 103-62) (GPRA). The GPRA

stresses the need to improve federal program effectiveness and public accountability by promoting a new focus on results, service, and customer satisfaction.

Specifically, the GPRA requires federal agencies to establish program-based performance goals for agency program areas that are quantifiable, objective, and measurable. Agencies must also create performance indicators that can measure and/or assess the outputs, service levels, and outcomes of agency program activities.

The GPRA, therefore, requires each federal agency to have a clear mission that describes the purpose and function of the agency, develop set of outcome-oriented objectives that serve to attain the agency mission, and develop a set of quantifiable performance indicators and measures that will assist program managers determine whether and the extent to which their programs achieve program objectives and support the agency mission.

GPRA has a substantial impact on the IMLS and, subsequently, LSTA. LSTA was created as a performance- and results-based initiative. There is likely to be continued emphasis on states receiving federal money to be able to demonstrate and measure specific outcomes from federally funded projects. Given this environment, the evaluation of the OnLine at PA Libraries project provides a range of methods and data collection techniques that can be used on similar projects by the State Library.

The Telecommunications Act of 1996

The Telecommunications Act of 1996 (P.L. 104-104) (TCA) was the first significant legislative overhaul to the Communications Act of 1934. The TCA essentially updated a variety of key aspects of the telecommunications industry, creating a more market-driven industry that relied on competition to foster lower telecommunications rates throughout the nation (Mueller, 1997).

The universal service provision of the TCA specifically directed the Federal Communications Commission (FCC) to create a discount structure for telecommunications services for schools, libraries, and rural health care institutions (P.L. 104-104, Section 254). Based on the broad guidelines established by the TCA, the FCC issued its final universal service rulemaking on May 7, 1997. In this ruling, the FCC created a (Federal Communications Commission, 1997, Section X):

- \$2.25 billion annual discount fund for schools and libraries; and

- Telecommunications discount structure ranging from 20%-90% for telecommunications services (defined as telecommunications conduits -- e.g., leased-lines --, internal wiring, and Internet connectivity). The discount rate a school or library can receive depends on the percentage of students on school lunch programs and the location (urban/rural) of the school or library.

The universal service provisions of the TCA, and the FCC implementation of those provisions, are aimed specifically at increasing the level of connectivity of schools and libraries to the Internet.

Putting the LSTA, TCA, and GPRA Together

Collectively, LSTA, TCA, and GPRA create a policy and regulatory environment that emphasizes market forces, performance measurement, and connectivity with the intent of creating an economically competitive nation in an information society (Bertot and McClure, 1996a).

More specifically, LSTA, TCA, and GPRA combine to:

- Promote local and statewide electronic networking activities to ultimately create a nationwide network of networks to which all Americans have access;
- Expand the concept of telephone-based universal service to the electronic networked environment by providing schools and libraries with discounted telecommunication services; and
- Evaluate the economic and social impacts of networking initiatives and funding for such initiatives on local, state, and national communities.

This new environment is one, therefore, in which schools, libraries, and state library agencies need to collaborate more than ever to create an electronic networked infrastructure and subsequently provide a variety of network-based services over that infrastructure.

The Pennsylvania Context

In June 1997, the Pennsylvania Public Utility Commission (PUC) adopted the FCC discount matrix, making Pennsylvania eligible for intra-state as well as interstate telecommunications discounts for schools and libraries under the Telecommunications Act of 1996. The Pennsylvania program will not go beyond the eligibilities and discounts in the federal program at this time. The Office of

Commonwealth Libraries has responsibility for reviewing and approving library plans.

To date, the Office of Commonwealth Libraries has provided advice to libraries in the form of memos and workshops. The memos were sent to all libraries that were thought to be eligible and the workshops have been for the DLC administrators and consultants so that they could bring back the information to their local libraries. The Office of Commonwealth Libraries also provided information so that each library could calculate its discount. All public libraries in PA have the potential of receiving discount rates between 40% and 80%.

The telecommunications environment and use of the Internet in Pennsylvania libraries is a rapidly changing situation. Those libraries that participated in the OnLine at PA Libraries project (as well as others) are likely to provide significant increased demands for Internet-based services and connections. There are, however, significant issues yet to be addressed in terms of equality of access, costs, availability of equipment, and resource sharing.

THE EVALUATION APPROACH

The OnLine at PA Libraries project provides an excellent opportunity not only to study the impacts of providing Internet connectivity to local communities, it also can assist the development of valid and reliable network performance measures and evaluation techniques. In addition, answering a number of key questions can assist Pennsylvania officials to better plan for future Internet development. These questions include:

- What are the scope, reach, and dimensions to the OnLine at PA Libraries project?
- How much Internet activity and of what types are taking place in participating libraries?
- What types of users access the Internet Connection and to what types of services and activities do they connect?
- What are the costs for such connectivity and various types of network activities and services?
- How has access to and use of networked information resources and services affected participating libraries in terms of economic competitiveness, education, productivity, quality of life, and other indicators of socio-economic well-being?

- What types of performance measures are appropriate to determine the impact of this initiative on participating libraries, local communities, and individuals; and what types of performance measurement tools can assist policy makers and researchers measure those identified performance measures?

There is a growing interest in identifying and measuring the impacts of public library Internet connectivity. Answers to questions such as “does the network improve the productivity of users?” or “is networking worth the cost?” are impossible to answer without first defining and then calculating some basic measurement techniques. The OnLine at PA Libraries project provides an opportunity to extend our knowledge about how to answer these and related questions.

Approaches for evaluating networked information services can be based on the following criteria:

- Extensiveness: how much of the service has been provided, e.g., number of users logging-in per week on a bulletin board or the number of participants of a particular listserv.
- Efficiency: the use of resources in providing or accessing networked information services, e.g., cost per session in providing access to remote users of an on-line catalog, or average time required to successfully telnet to a remote database.
- Effectiveness: how well the networked information service met the objectives of the provider or the user, e.g., success rate of identifying and accessing the information needed by the user.
- Service quality: how well a service or activity is done, e.g., percentage of transactions in which users acquire the information they need.
- Impact: how a service made a difference in some other activity or situation, e.g., the degree to which network users enhanced their ability to gain employment or pursue business.
- Usefulness: the degree to which the services are useful or appropriate for individual users, e.g., percentage of services of interest to different types of user audiences.
- Adoption: the extent to which institutions or users integrate and adopt electronic networked resources or services into organizational or individual activities, e.g., classroom instruction.

Evaluations of public library provision of networked information services, while needing to consider extensiveness and efficiency criteria, should give more attention to effectiveness, service quality, usefulness, impact, and adoption measures.

Developing measures to assess *impacts* from the provision of networked services from public libraries has proven to be a challenging endeavor because of the lack of basic measures that describe and assess the networked environment. Methods for simply counting types of users and their network activities require the resolution of a range of issues and policies. Nonetheless, this study provides a beginning perspective on the development of such measures and evaluation techniques.

The evaluation of the OnLine at PA Libraries project continues work by McClure and Bertot which includes the national survey and assessment of *Public Libraries and the Internet* in 1994 (McClure, Bertot, and Zweizig), in 1996 (Bertot, McClure, and Zweizig), and in 1997 (Bertot and McClure); *Internet Cost and Cost Models for Public Libraries* (McClure, Bertot, and Beachboard, 1995); and the evaluation of the statewide network in Maryland, *Sailor Network Assessment Final Report* (Bertot and McClure, 1996b).

EVALUATION METHODOLOGY

This evaluation project serves as an initial assessment of the Project that will provide the Office of Commonwealth Libraries with baseline data on the value, use, and impact of the project on various user communities throughout the state.

Evaluation Goals and Objectives

In particular, the evaluation project will assist the Office of Commonwealth Libraries, public librarians, and others by achieving the following goals:

- Determining the degree to which original project goals and objectives have been accomplished.
- Evaluating the value of the project to such communities as the K-12, public library, business, minority, senior, and state and local government
- Recommending refinements and modifications to the project to more closely meet the needs of the target communities
- Measuring the nature and extent of K-12, public library, business, minority, senior, and state and local government community use of the

Project, with emphasis on the incorporation of Project-based resources into community activities

- Creating measurement devices that the Office of Commonwealth Libraries can use in the future to maintain ongoing or periodic assessment of the project.

To achieve these goals, the consultants performed the following tasks:

(1) Assessed the impact of the project on participating public libraries in terms of

- Provision of basic reference services
- Provision of document delivery services
- Assistance to users for
 - Instruction
 - Technical assistance
- Assessment of whether the role of libraries has changed in relation to local government
- Assessment of the impact of the project on library staff, administration, and trustees regarding
 - Staff development and/or continuing education
 - Staff allocation
 - Policies (service and access).

(2) Assessed the project's benefits to users by

- Developing and administering measurement tools that determined
 - User groups within the K-12, public library, business, minority, senior, and state and local government communities
 - The methods through which the user groups became aware of the project
- Interviewing a cross-section of the project's target communities to determine the level of involvement of such communities with public access to the Internet to
 - Specify systemic use of the public access Internet workstation

including, but not limited to, reference interactions, point of use instruction, and integration into the workplace

- Assess the impact of the Project beyond public libraries (e.g., use by state and local government in improving their ability to perform the duties of their jobs, use by businesses in improving their ability to perform the duties of their jobs, use by citizen groups (e.g., senior, minority) in meeting their non-mediated information needs or for personal enrichment)

(3) Developing measurement devices and methods for SIU and the Office of Commonwealth Libraries to implement at a later date for continued evaluation of the project and its impact of services provided by libraries in Pennsylvania.

(4) Providing a training session to selected SIU and the Office of Commonwealth library personnel in the use and execution of project data collection instruments to facilitate the transition of data collection activities to SIU and Commonwealth libraries personnel after completion of the evaluation.

These evaluation goals and objectives provided a framework that directed the organization of study activities.

Time Line and Project Tasking

The evaluation project began on October 1, 1996, and continued through October 1, 1997. The evaluation comprised three main phases. Phase I was project planning, literature review, introduction to project activities, and development/pretesting of data collection instruments. Phase II included administration of a range of data collection efforts and analysis of the data resulting from those efforts. Phase III focused on assessment of findings/conclusions, development and dissemination of the final report, which included a presentation on the project at the Pennsylvania Library Association Conference, September 1997. In conjunction with SIU and the Office of Commonwealth Libraries, the consultants developed a more detailed project tasking timeline during the first phase of the research project.

Data Collection

The study drew upon a combined qualitative and quantitative approach, selecting data collection techniques that best met the goals and objectives of the study. Qualitative techniques were employed, for example, in the use of ongoing expert review of the assessment techniques, measures, policy analysis, and

measurement tool development. The qualitative approaches also assisted the researchers to develop such quantitative measurement tools as user surveys, the training surveys, and the survey of library directors. Quantitative techniques contributed to the development of measures related to public access workstation use, and costs, as well as user involvement with the electronic services.

The evaluation relied primarily on a number of different data collection techniques, including:

- **Focusgroups.** The consultants conducted a focus group in February 1997 with librarian participants to inform the development of other data collection instruments; additional focus groups were conducted as part of the site visits.
- **Help desk use logs.** SIU staff tracked the use and duration of requests during selected sample periods.
- **Interviews.** The consultants conducted on-site or phone interviews with library administrators, Project system designers, and various user community members.
- **Surveys.** The consultants incorporated in the site visits as well as three other key efforts:
 - Survey of participants attending the October 1996 and April 1997 training sessions sponsored by the SIU and the Office of Commonwealth Libraries
 - Survey of participating library directors as to their overall perceptions and assessment of the project to date (March 1997).
 - Survey of users of the workstations in participating libraries (May 1997).
- **Sitevisits.** The consultants observed the use and operation of the public access work stations, interviewed staff and other participating librarians, and conducted a focus group of users at four locations throughout the state of Pennsylvania.

The combination of these data collection strategies allowed the study team to use multiple techniques to investigate various project topics and obtain quality data. Specific steps in the method and data collection were based on proven strategies (e.g., Rossi and Freeman, 1993; Kruegar, 1994; Creswell, 1994). Throughout the process appropriate steps were taken to ensure the collection of reliable and valid data as per standard research practice (Brinberg and McGrath, 1985).

Project Products and Dissemination

The consultants provided the SIU and the Office of Commonwealth Libraries administrators with multiple project products, including:

- Preliminary project findings and updates in January 1997 and June 1997. These updates served to inform SIU and the Office of Commonwealth Libraries staff as to the progress, preliminary findings, and key issues of the evaluation project.
- Data collection tools and instruments for continued SIU and the Office of Commonwealth Libraries data collection activities (included in the final report).
- A training session for selected Office of Commonwealth Libraries staff on the use of the data collection tools and instruments.
- Databases (on disk) of the survey data reported in Chapter 2.
- A final report detailing study findings, methodologies, and data collection tools, findings, and recommendations.

Furthermore, the consultants pursued several dissemination strategies for project findings including presentation of preliminary study findings at the Pennsylvania Library Association annual conference; presentation of project findings at national and state conferences such as the Public Library Association National Conference in March 1998; and submission of articles encompassing project findings to research journals, professional publications, and the ERIC Clearinghouse.

ORGANIZATION AND PURPOSE OF THE FINAL REPORT

This first chapter serves as an introduction to the study and provides background information to set the study in context. Chapter 2 reports on specific data collection efforts including:

- Survey of participants attending SIU and the Office of Commonwealth Libraries training sessions (conducted October 1996 and April 1997).
- Survey of participating library directors (conducted March 1997).
- Survey of workstation users (conducted May 1997).
- Log of SIU help desk requests (October, 1996 - June, 1997).

Chapter 2 also contains additional detail about the data collection methodologies and instruments.

Chapter 3 reports on the site visits at four participating libraries conducted in June - July 1997. These site visits included a range of data collection activities which are described in greater detail in Chapter 3. Chapter 4 offers a brief summary of findings. It also identifies key issues warranting additional discussion, describes some lessons that have been learned from the project, and it provides recommendations as to next steps and strategies for building on the existing momentum created by the project. The appendices include background information regarding the project as well as copies of the various data collection instruments.

The purpose of this final report is to provide a concise description of the evaluation activities related to the OnLine at PA Libraries project. The report is not intended to serve as a history of the project, project activities, or specific levels of involvement and work by various project libraries or other participants. The report documents the success of the project and can serve as a discussion point for all participants as to (1) the successes and problems that arose with the project, (2) key issues that will require additional attention, and (3) planning strategies to continue the effort and successes of public libraries connecting the people of Pennsylvania to the Global Networked Society.