

The Internet Initiative at the Atlanta-Fulton Public Library

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ABSTRACT

This article presents the efforts of Atlanta-Fulton Public Library in providing Internet access and database search services to information seekers encompassing homes, schools and offices. Two main features of this Internet initiative described are : Adult learning service and Internet access to high schools.

1. AFPL—INTERNET INITIATIVE

In November 1994, the Atlanta-Fulton Public Library (AFPL) began offering Internet access to approximately 300,000 registered patrons from its 34 branches and through remote 24-hour dial-up communication equipment. In addition, the library implemented a special partnership with all twenty-three of Atlanta City and Fulton County high schools through which it provides Internet access to the Library's commercial information databases and electronic mail (e-mail) accounts. This Internet initiative was begun to address the two most critical Library long-range goals: To support adult independent learning and schools. The

Fulton County, which encompasses much of Atlanta, is one of the largest and most diverse counties in the United States.

The Internet initiative was developed as a key component of the Library's ongoing three-year technology plan. The technology plan was developed by the library administration and was approved by the Library Board of Trustees to reflect the library's goals for patron service. It is revised annually to incorporate advancements in technology and to ensure effectiveness and flexibility in addressing the Library's goals.

In 1993, as part of this plan, the Library decided to become an Internet node via the South-eastern regional

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provider, SURANet (now known as BBN Planet), in order to provide database and e-mail access to its patrons. It was hoped that Internet access will enhance the Library's telecommunications structure and provide alternate telecommuting routes to the Library's resources. It became evident that Internet was becoming a major publishing medium for critical information resources. For example, it was clear that the Internet would shortly become the most important publishing source for much of the government information. In fact, in the past two years, the Internet has gone beyond government and locally-produced information to become one of the most important sources for multimedia information.

It was decided that the Library's initial Internet offering would be a web server with selected text-only information databases. In addition, the Library would offer Internet accounts and e-mail access to educational projects in Atlanta city and Fulton County high schools. Although many interactive Internet web-sites seemed specifically geared to middle and elementary schools, the Library focused first on high schools to ensure that students graduated to higher education or the job market with a basic familiarity with the information superhighway.

The Atlanta-Fulton Public Library became an Internet node through BBN Planet and purchased a CISCO 7000 router and CSU/DSU to connect via leased T1 line to the Atlanta point of presence (POP). The CISCO 7000 router was selected for its scalability for wide area networking, as well as its packet filtering and superior routing capabilities.

The Library utilised a fan-out box as a place-holder for a forthcoming high-speed switched network currently under development. A competitive bid was issued for an Internet service provider to implement the server, web browser and e-mail applications. A requirement for the Internet was that it should serve as a gateway to remote branches via the library's mainframe integrated library system—CARL.

One of the basic tenets of the Library's technology plan is that technology is used to provide equitable access to resources at all library branches. All technology was therefore designed and implemented to accomplish this objective.

An Ethernet gateway card and TCP/IP were already available on the mainframe, in anticipation of the need to gateway LAN (Local Area Network) services to branches. The Library's online system vendor—CARL Corporation—was awarded the bid and provided a Sun SPARC-5 workstation for the Internet server, LYNX web client/server software, and Pine e-mail.

In 1993, the Library began offering its PASSPORT electronic reference service, which provided access to its online catalogue, commercial databases and reference sources such as the *Academic American Encyclopaedia*, *Facts on File*, *Company Profile*, a directory of corporations, and EBSCO's *MasterFile*, a collection of 350 full-text magazines. In 1995, *The Atlanta Journal/Constitution* full-text, in ASCII format, was added to this service. In addition, the catalogues of fourteen CARL libraries around the country, primarily large public libraries, are available as PASSPORT databases.

Another tenet of the Library's technology plan is ease of access. All information services are designed, as much as possible, to be available at the same workstation in a user-friendly format. The PASSPORT electronic reference service was therefore designed and developed as a 'one stop shop'. The Library's Internet databases are integrated with the public access catalogue and mainframe reference databases. The Library's web server or 'window to the Internet' is an option on the PASSPORT main menu on all 465 public access catalogue workstations in all 34 branches.

currently accessed approximately 5,500 times per month by library patrons.

The only serious technical difficulty has been the inability of the Library's graphical user interface (GUI) workstation—Everybody's Catalogue—to provide Internet gateway access. The Library purchased Everybody's Catalogue with grant money while the product was still in development. The Library served as a beta tester of the product and assisted the vendor in resolving difficulties with database access and indexing. The product has evolved into a mature, user-friendly navigational tool that is very attractive to patrons and staff. Internet access, however, was the most difficult to resolve, but is currently in test for public release.

2. ADULT LEARNING SERVICE

The Library's web server home pages were designed to provide critical adult independent learning and skill needs. More than eighty databases are currently provided in the following areas: Electronic Reference Desk; Business and Economics; Government Agencies and Information; Career and Job Market Resources; Geography and History; Health and Nutrition; Science; Literature and Biography; Recreation; and School Resources. In February, 1995, dial-up access was provided to all library patrons, who can dial-up from their homes, schools or offices, to all of the Library's PASSPORT databases, including the 'window to the Internet'. The Library's Internet access was heavily promoted on the Library's cable channel and through press releases and a front page article in the *Atlanta Journal/Constitution*. Dial-access brochures and instruction guides were posted at each workstation. The Library's Internet Project Team trained Library 'Internet Experts', who then trained the other library staff. The result has been a user-friendly Internet gateway which is

3. SUPPORT FOR HIGH SCHOOLS

In addition to the widest possible patron access, the Library installed two CISCO 516 communication servers for dedicated dial-up access to the Internet server by Atlanta and Fulton County high schools. The Atlanta and Fulton County school systems, in 1994, were mostly entry-level computer users. To ensure smooth, efficient installation and access, the Library made several hardware and process decisions.

The Telebit WorldBlazer modem was selected for communication between the schools and the Library's Internet server, for several reasons. The modem supports many speeds and protocols and can step down to slower phone lines, but can also step up when a faster line is encountered. Fulton County is

fast-growing, and public utilities have not kept up with growth. Outlying areas with rapid expansion, in particular, may have poor phone service. In addition, the modem's two-year warranty, extendable to four years at minimal cost, has resulted in reduced ongoing equipment maintenance costs. Ongoing maintenance is always a major consideration with any hardware and software purchase for the Library, for reasons of cost effectiveness and reliable, uninterrupted performance.

To ensure smooth functioning with minimal technical support to the schools for Internet connection, the Library required a standard modem and standard communications software package. This greatly reduced the number of variables to be tested, and assured familiarity with hardware and software for remote troubleshooting at the Library computer room.

Although the schools purchased their fax/modems, the Library installed the modems and the ProComm Plus software at the schools. This eliminated start-up problems due to faulty installation and set-up. Twenty-one schools were connected online within three weeks. School support has not required more than three on-site hardware service calls monthly since the project began.

The WorldBlazer modem also assures smooth, stable, secure telecommunications traffic through the use of a proprietary protocol to provide callback service to the dialling stand-alone school modem, for only those phone number programmed into the rackmount modems at the library computer centre. Each school's phone number is programmed on two

rackmounts, to ensure flexible access. Each school knows which others share its modems, so that as use becomes heavy, or if a class is scheduled, schools can negotiate with each other for dedicated access. To date, no availability problems have been reported by the schools, although schools average between 58 and 77 login sessions daily. As a result, the dial-in service as designed approximates the security and reliability of leased-line access at considerably less cost. The CISCO 516 communications servers fully support all functionalities and protocols of the CISCO 7000 router and the WorldBlazer modems.

A key component of the school partnership was the involvement of school administrators, teachers and students in every phase of project design and implementation. A decision was made to offer Internet access in the media centre of each high school. The media centre co-ordinators for the city and the county participated in initial project design and in database selection for the web server School Resources home page, which provides interactive learning experiences, on Kidlink Gopher, NASA SpaceLink and Classroom Earth and access to the Library's PASSPORT electronic reference service. Teacher and media specialist resources such as AskERIC and Empire Internet Schoolhouse, are also provided on the School Resources home page. A focus group of students and teachers pre-tested and critiqued the training program and web server. As a result, the Library provided an intensive 'training the trainer' workshop for six people—media specialist, students and teachers—at each school. These six people then became the trainers and resource

staff at each school.

Each school was provided with Pine e-mail access and an e-mail address for interactive education projects. One class immediately began to participate in a project with Tufts University. A high school German class began an e-mail correspondence project with an English class in a high school in Germany. The Library's Internet Project Manager encourages Internet use through promotional contests, regular e-mail communication, surveys and visits to schools to meet with students, media specialists and teachers.

Internet use in the high schools is a stable, reliable service that provides access to the library's selected Internet resources and to the Library's PASSPORT electronic reference service. Providing secure access via Internet to PASSPORT helps to prevent bottlenecks on the public dial access lines.

There were several challenges that emerged in the high school Internet project. The greatest challenge was the lack of computer expertise in the media centres, which was resolved by requiring standardised hardware and software and providing installation and ongoing support. An unanticipated concern has been the difficulty in understanding and working with school structures for ongoing enhancements to the project. Technology co-ordinators are being appointed for the Atlanta high schools and appear to be a better resource, along with existing curriculum committees in both school systems, for encouraging active classroom use for educational projects than the school media centres. On the other

hand, the school media centre provides centralised access to Internet and PASSPORT databases for student independent study and research.

Another issue currently under discussion has been the Library's interim policy of allowing access only to databases selected by the Library. This is accomplished by disabling the Lynx 'Go' command, which opens URLs. This was a feature requested by the city and county Media Centre Co-ordinators. As teachers and students become more familiar with Internet, however, they are increasingly requesting unrestricted access to the Internet. The Library is also currently the only public library in the metropolitan area to offer Internet access. To date, the public has not clamoured for unrestricted access but, as other metropolitan public libraries offer unrestricted Internet access via PeachNet, the Atlanta-Fulton Public Library can expect that its patrons will begin to ask this capability. The Library's interim policy is that Internet materials are selected, just as other library materials, to meet patron information needs, but this policy is currently under review.

4. CONCLUSION

The Library is continuing expansion of its Internet initiative through several new projects. Local databases are currently in development to provide Library-specific Olympics information, such as bibliographies and frequently asked reference questions. These databases are primarily designed to support school projects and assignments. Fulton County government databases, to be offered in a Fulton County home page tentatively

titled 'InfoFulton' are also in development.

The most exciting development is the Library's plan to upgrade its telecommunications to frame relay and to provide a FRAD/router/hub at each branch to access Internet multimedia databases and text-based CD-ROM at all its branches. Among other products, the InfoNautics *Homework Helper*, which includes full-text magazines, newspapers, encyclopaedias with full illustrations; will

be offered at no cost to patrons in every branch. The Everybody's Catalogue will launch the Netscape client browser to provide full graphics access to Internet databases, including *Homework Helper*, in each Library branch. The Library continually monitors its hardware and software infrastructure to ensure that Fulton County patrons can take full advantage of the expanding world of Internet resources, to meet their information, education and life skill needs.