

PROJECT PURPOSE The New York Public Library (NYPL), with eight small business assistance organizations as partners, will create an online interactive information resource and virtual community to connect entrepreneurs with small business assistance organizations and with one another. Previously isolated small business owners will have immediate online access to service providers and training opportunities, and will be able to share advice, expertise, and training in a virtual networking environment.

The Community: The economic development of New York City's communities is tied to the success of small businesses and the opportunities they provide. Small businesses form the backbone of the U.S. economy, representing over 99% of all employers in the country.¹ They play a crucial role in New York's economy since companies that employ fewer than 100 people account for two of every five jobs in the city, and approximately half of all jobs in the state.² In 2000, there were approximately 467,000 small businesses in New York State.³ Small business continues to be an important means by which women, minorities, and immigrants enter the economic mainstream and increase their share in the economy.⁴ In recent years, minority entrepreneurial activity increased dramatically due to an influx of immigrants, improved access to capital, and higher levels of education.⁵ In the last decade, the number of minority firms grew four times faster than all U.S. firms, to over 3 million companies.⁶

The Problem: Small businesses have always required extra support to survive, in part because many operate in relative isolation and with very thin profit margins.⁷ They are often unaffiliated, lack organized peer networks, and do not have the safety net that many large companies have, including insurance coverage, satellite locations, and access to cash reserves.⁸ While numerous assistance organizations offer counseling, information, and investment financing, many small businesses do not know how to find and obtain these services.

New York City's economy is in decline with over 300,000 people unemployed as of March 2003.⁹ The financial sector has laid off thousands, and bankruptcy filings have grown. The destruction of the World Trade Center displaced 100,000 downtown workers, 50,000 of whom worked in the surrounding area, many of them employed by small businesses. These losses are still continuing. The City Comptroller's Office estimates overall economic losses at \$82.8-\$94.8 billion from September 2001 to the end of 2004. Notably, during hard economic times, many people seek to start their own businesses, often after they have been laid off and are unable to find other jobs.¹⁰ In order to start up and survive, New York's small businesses not only must be able to tap financial support, they must have access to current information, technical assistance, and networks that can sustain them during difficult times or after their financing runs out.¹¹

The Solution: To help small businesses negotiate these ongoing challenges, the Library will build a virtual network that connects businesses owners to each other and to the expertise and knowledge of small business assistance organizations in New York City. In collaboration with eight partners in the small business community, the Library will:

- Create a web-accessible database of up-to-date information on workshops, events, and other training opportunities, which will be searchable by date, type of training, and organization.
- Offer web forums for discussion of timely topics of interest to the small business community, e.g., insurance options, employee health plans, and disaster preparedness, moderated by business experts from partner organizations. Registered participants will submit questions to the forum via the moderator. All submissions and responses will be reviewed for suitability by the moderator,

who can also respond to the queries. The forums will be archived for future searching.

- Provide online access to twelve videotaped workshops and to text-based materials on topics related to business start-up and growth, such as *Business Planning*, *Obtaining and Maintaining Credit*, and *Market Research*. Videos will be viewable on a multi-frame web page, and supplementary materials will be displayed as interactive links in an adjacent frame. Captioning in Spanish and a chat option will be available for selected videos. Several of the workshops may be in Spanish (through a partnership with ACCION, a multilingual business services provider).
- Extend online reference assistance to include both information specialists from within NYPL's Science, Industry and Business Library (SIBL) and experts from small business assistance organizations who will answer inquiries from online users. A database will be built for archiving the queries and answers, which can be browsed and searched.

The project will build upon the services currently offered through the New York Small Business Resource Center (SBRC), a website that helps small businesses locate information sources and assistance programs in the city (see pages 23-27 for sample pages). Originally developed by the Partnership for New York City, the SBRC site is now managed by the Library. In March 2003, nearly 15,000 user sessions were logged. SIBL staff develops new content for the site's Business Owner's Manual, maintains a searchable database of hundreds of organizations that offer free or low-cost small business assistance in New York City, announces workshops and training activities, and provides reference assistance via e-mail.

The Small Business Resource Center is a valuable, but primarily static, resource. NYPL's experience indicates that business owners and assistance providers need a timely and efficient means of information and knowledge exchange. The Library seeks funding to develop an advanced online system for small business owners and agencies to dynamically post, retrieve, and share the latest essential information, knowledge, and training. The SBRC offers a structure and sustainable operating mechanism that can be leveraged to fill this need.

Outcomes: In addition to a 50% increase in the number of user sessions on the site, it is hoped that the new online resources will result in the following outcomes:

- 80% of business owners using the site can identify training opportunities and information relevant to their needs, and feel better prepared to address information needs on their own.
- 75% of business owners, entrepreneurs, and assistance organizations using the site feel connected and supported through the online economic community.
- 65% of assistance organizations using the site are able to expand their client outreach efforts, or are able to stay apprised of users' needs (e.g., gaining insight through the online forums).

INNOVATION

This project joins the expertise of the Library and of partnering organizations to provide new services to the small business community through advanced technologies, shared expertise, and collaboration. In this new model for information transfer, the Library provides the structure, networks, and technology to enable true participation by all stakeholders.

The Library will host online forums and select moderators to answer questions on specific topics based on their familiarity with the local business community and their expertise. The information provided will be both timely and accurate. The Library will create a dynamic database of local training workshops, seminars, and events. The eight partner organizations and any of 300+ other groups in the SBRC Programs Locator database will be registered to list their events in the database. NYPL will be one of the first libraries to create web-based training that

incorporates video “movies” of presentations and workshops, using interactive technology that presents text and video simultaneously. Business assistance organizations will be able to extend their training workshops and seminars to users over the Internet. Small business owners with limited free time and late work hours will be able to access information and training sessions at any time, day or night. In the first year, SIBL will create and post four videotaped training sessions, which may incorporate text materials. In the following two years, in addition to video and text, the web training sessions will allow for keyword searching and interactive chat. Workshops will also be made available in a variety of audio formats, including MP3 format for downloading to a computer or MP3 player, and SmartStreamed Audio with a very low data rate, allowing even those users with older modems to access high-quality business training.

Through its research and its experience, the Library has ascertained that this type of robust and remote access to a range of online forums and training options does not presently exist for the New York small business community. To create these services, the Library will look to technology utilized in other areas, including the commercial and educational sectors. Service providers in every field are examining technologies that can help them to extend their resources to their target users. Software customers, for instance, often access online forums where they can trade tips with one another and seek information, while the software companies simultaneously learn more about their clients’ needs. NYPL will adapt these technologies to provide small business information, assistance, and training in a new, collaborative online environment.

The Library will seek to improve on efforts by other business service providers. One effort by the American Women’s Economic Development Corporation experimented with an online bulletin board with disappointing results. The focus of the board was general, with the result that the relevance and scope of the queries ranged widely. The Library and the partners in this project will identify topics of high relevance on which a series of online discussions will be offered for two to four weeks only. Discussions will be “staffed” by an expert who will answer submitted queries, and selected queries and responses will be archived for searching. In this and other instances, NYPL’s extensive partnerships with community assistance providers, experienced staff, and technology infrastructure make it uniquely prepared to develop more effective services.

COMMUNITY INVOLVEMENT

Partnerships and Community Involvement: In the earliest stages of project planning, the Library conducted a survey of SBRC’s users to ascertain the demand for extended small business services. The results indicate that over half of those surveyed would like to participate in online discussion forums, while 60% would like to see the website extended to include a citywide small business events calendar. Almost half of the respondents want to be able submit questions to business experts. To meet these needs, the Library will create a system to allow service providers and business owners to interact directly and dynamically with their peers and with each other.

SIBL is a trusted community resource, serves a well-accepted reference and education function, and has extensive relationships with the small business community. For years, SIBL has provided training for the clients and staff of several key service providers, either at SIBL or at the organization’s offices. Reciprocally, many of these organizations have provided speakers for SIBL’s free programs for the entrepreneurial community. Based on past collaborations, the Library has chosen to partner in this project with eight organizations: the Partnership for New York City, from which SIBL took over the SBRC website; the SBA’s Service Corps of Retired Executives (SCORE), which offers counseling hours at SIBL; the Workshop in Business Opportunities, whose “bootcamp” for entrepreneurs enables those from economically-

disadvantaged communities to start, operate, and build successful businesses; the American Women's Economic Development Corporation, which uses formal course instruction, one-on-one business counseling, seminars, networking events, and peer group support to increase the start-up, survival, and expansion rates of small businesses; ACCION, a microlending organization that works with small businesses that lack access to traditional sources of business credit to help them launch and grow their businesses; the New York Industrial Retention Network, which helps manufacturers develop strategies to remain competitive; the South Bronx Overall Economic Development Corporation (SoBRO), which provides business development education and information to promote economic development; and the Financial Women's Association, whose mission—to shape leaders in business and finance with emphasis on the role and development of women—is carried out through professional development programs. The Web Coordinator at the Partnership for New York City will offer technical assistance and support on the development of the site. The other seven partners will provide moderators for online discussion forums, experts to answer users' queries, and workshops or training sessions and materials, as well as will post information on their workshops and other events (please see the letters of commitment for more information on partners' contributions, pages 12-22). As a result of this project, the partners will be able to reach out to new clients and entrepreneurs will be able to choose more readily from among a wealth of relevant expertise and training.

Support for End Users: The proposed project takes in the large number of small businesses in the New York metropolitan area, many of which are prepared to utilize online technologies. Dun & Bradstreet's *Annual Small Business Survey 2002* found that 85% of U.S. small businesses use at least one computer for business purposes, and two-thirds of all small businesses have Internet access. While most firms are still at the early stages of incorporating technology into their business processes, they are taking advantage of online resources to help their businesses.¹² Users are increasingly turning to the web for practical information; however, many users also report a lack of local community information as a barrier to their use of Internet technology. Providing small business users with the ability to contribute content, events, discussions, and local expertise to the SBRC site will expand its use dramatically.

Many Internet users already participate in online newsgroups or discussion forums like those proposed for this project. The project's website will be developed to allow users of all levels to easily find the information they need. User interfaces will be designed for optimal navigation and ease of use, and help links will be on every page. Those who require basic computer instruction can also take advantage of free classes in many of NYPL's libraries, including SIBL.

The new site will be promoted by tapping into SBRC's extensive contacts with assistance organizations, through presentations to the small business community, and through a printed brochure disseminated to Library users seeking small business information. Furthermore, the site's features will be highlighted at presentations, demonstrations, and training classes conducted by SIBL for small business audiences.

EVALUATION AND DISSEMINATION

Evaluation: The Library will contract with Dr. David Birdsell and Douglas Muzzio of the Baruch College School of Public Affairs to conduct an evaluation of this project. Both have extensive experience evaluating projects related to the digital divide and public services, and have worked with the Library in the past (please see pages 28-29 for their qualifications). The evaluation will collect feedback at crucial points in the planning and implementation of the

project, and will be used to help shape the project and to assess the success of the initiative.

To measure project outcomes effectively, the evaluators will first capture baseline data regarding user attitudes towards the current SBRC site. One instrument, web-based surveys, will ask users to answer questions such as: *Are you able to find training opportunities that are relevant to your needs? Are you able to find up-to-date information? Are supportive resources available to you to launch or grow your business? Do you have direct access to assistance organizations or other small businesses?* These and other questions also will be posed to users at the end of the project to determine whether they have experienced changes in their ability to locate and share information as a result of the project. The Library anticipates that a greater number of users will report that they are able to find the information they seek. The evaluators will also survey assistance organizations to ascertain whether they feel that their outreach efforts are enhanced by participating in the SBRC website, and whether they have access to information about small business owners' needs through the website. The Library expects that the number of assistance organizations who report that their ability to reach users has been expanded will increase at the end of the project. The evaluations of both groups will also seek information about desired enhancements to capture changes in their needs.

During the project, the Library will also determine if user needs and expectations are being met. A web survey administered after the new services launch will capture how users are reacting to the site, querying them about ease of use, content and coverage, usefulness of the features, and further modifications. In addition, the evaluator will conduct a group interview of the assistance organizations at midpoint to assess whether the site's features have demonstrably increased the dynamism and directness of their interactions with clients. They will ask participants whether more clients are using their services, meeting with increased outcome success (successful application of loans, securing capital, etc.), and coming to the service providers more prepared. The Library and its project partners will recruit participants for the evaluation. Data from this interview will help the Library finalize the site's design and structure to ensure that it maximizes functionality and appeal.

At the end of the project, the evaluator will determine how successfully the website services meet the needs of the user community. As described earlier, the evaluators will conduct this part of the evaluation using a web-based survey as well as a second interview with representative assistance groups. In addition, the Library will collect monthly quantitative data on traffic to the homepage, the amount of time users spend on the website, and the level of use of the new features. These statistics are expected to increase once the project is implemented.

Dissemination: The severe decline in the nation's economy extends this project's relevance to other communities. The Library will use mature web technology applications that are widely available, can be adopted at low-cost, and conform to industry standards. For instance, online discussion services like Prospero, Web Crossing, and eShare can be purchased and implemented by other organizations, or used as the basis for building other web applications.

The knowledge and experience gained in developing and maintaining these new web services will be valuable to other libraries and assistance organizations interested in offering dynamic information services. The Library will disseminate information to the business community through venues in which it already participates such as Baruch College's conferences on small and family-run businesses, *Crain's New York Small Business Expos*, and the U.S. Small Business Administration's regional meetings. SIBL is an active participant in many peer associations and information science organizations, and staff will present at panels or poster

sessions at conferences sponsored by these groups. As part of their outreach, SIBL librarians have also provided professional development training in small business resources to library and non-profit agency staff in various upstate New York rural communities, for which this project's collaborative approach would be beneficial. Communities of library practitioners as diverse as The New Jersey Library Association and the Checkpoint Charlie Foundation in Berlin, Germany have invited SIBL administrators to revitalize their members' small business outreach based on what they have seen on the current SBRC site. Knowledge gained will be disseminated through regional workshops for community organizations, postings to online and print professional journals, and presentations by SIBL and partner organization staff at industry conferences. Additionally, Library managers who serve on the boards of organizations such as the Special Libraries Association, the Financial Women's Association, and the CUNY Graduate School of Library and Information Sciences will actively identify program planning opportunities to showcase the project and its outcomes.

Protection of Human Subjects: The project involves human subjects research, but the research will likely be eligible for an exemption from Institutional Review Board approval.

PROJECT FEASIBILITY

Technical Approach: The project will build on the structure of the current SBRC site to create:

1. **Dynamic events database:** Application software will be implemented to allow assistance organizations to post listings of workshops, training sessions, and seminars to a web-accessible database. These events will be automatically featured across the website through the software and applications programming. Event listings can link to organization profiles, and organization profiles can automatically announce upcoming events.
2. **Web-based discussion forums:** Forums will be administered using web discussion software, which will allow participants to create logins and choose from interactive features such as e-mail notification of new postings on particular topics. Experts from assistance organizations will rotate as moderators, and be available to answer questions, over a period of several weeks. Unlike chat services, questions posed to the moderator will not be answered in real time. Topic threads will be created to match the moderators' areas of expertise and scaled to reflect the activity level of the forum. Selected questions and answers, with personal information deleted, will be archived for browsing after the discussion forum concludes.
3. **Ask an Expert Q & A:** Expert guest hosts, drawn from SCORE's experts registry, SIBL staff, and the experienced staff of other partners will answer users' questions online or via e-mail. Answers will be archived in a database, and an application will be built for site users to conduct keyword searches or browse previously posted questions and answers. In this way, a dynamic FAQ (Frequently Asked Questions) will be continually expanded and updated.
4. **Online training modules:** Twelve presentations will be captured on video and audio, edited, and compressed into Internet-ready "movies." Two versions will be developed, one for viewing on 56K modems, and another for higher bandwidth, such as cable or DSL modems; they will use the QuickTime multimedia platform. A multi-frame website will house the video in one frame, and as appropriate, load slides and other materials in the second frame. Interactive links embedded in the materials will take the viewer to related information. Workshop modules will be downloadable in audio to MP3 format to make these presentations completely portable. In the second year, video captioning in Spanish will be provided, and during the third year, a cross-platform chat program will be incorporated so that those viewing a training seminar can discuss

the subject online. Please see pages 30-35 for screen shots of sample presentations.

The Library has examined other approaches for the proposed electronic events listings and discussion forums, including having events and discussion “pushed” via e-mail to users; events published through static web pages; events separately posted by a website administrator to a database; and discussion via e-mail listservs. All of these approaches have disadvantages, including missed e-mail notifications, changing e-mail addresses, difficulty in maintaining the accuracy and timeliness of postings, duplication of effort, and difficulty in administering topics and monitoring listings.

The Library has a 63-member technology department, as well as a web office, that will help plan, deploy, and maintain the technology in the project. The Library connects to the Internet via an OC-3 line. A central data center, supported 24/7, houses all network servers, including Sun System web servers. The Library will use existing technology platforms—MS Access, SQL server, and Oracle—to ensure ease of implementation and maximum interoperability with other Library electronic resources. To allow for the participation of a diverse group of assistance organizations, the programming, software, and applications will conform to industry standards, including Java, Perl, XML, SQL, CGI, and other scripting languages. SIBL will engage its project partners to help evaluate possible vendors and/or software solutions.

Equipment, software, and other technologies that will be deployed for this project include a network server that will be scalable to the anticipated increase in traffic for new services; a robust, secure, and scalable database (expanded from the current MS Access events database) and the administrative software needed to run the stored procedures; application programming interface or other application software built to scale to increasing traffic and user queries either acquired through vended platforms (e.g., Web Crossing, Prospero, and eShare are enterprise-level vendors of discussion software for web forums) and selected for flexibility in maintenance, or customized for the Library by a programmer; and online training modules created using QuickTime, a mature interactive media platform that offers a free player on the web. Using standards-based Customer Relationship Management and Community Web applications (e.g., group discussion software) that will be built or purchased will allow for continued support and improvement of these applications through the developer communities for these platforms.

Applicant Qualifications: Since opening in 1996, the Science, Industry and Business Library has become a powerful engine in New York City’s economy. SIBL is the nation’s largest publicly accessible information center devoted to business, science, and technology. It provides free and open access to specialized collections of the latest industry information, periodicals, books, directories, guides, electronic resources, and databases, as well as the expertise of reference staff and counselors. SIBL has both the experience and skills to help small businesses meet challenges under changing economic conditions. Its reputation for high quality services and expertise is the reason the Partnership for New York City handed over its fledgling website to SIBL. The accuracy and quality of the SBRC website is widely recognized. Last November, the New York City Council’s Economic Development Sub-Committee reformatted the data in the SBRC’s Program Locators database for a print publication, *Resource Guide to Doing Business in the Five Boroughs* (please see page 11 for the New York City Council’s letter of support). Much of the contact information in the guide quickly became dated and the print run was depleted in two months, underscoring the challenge of providing accurate and current information.

The project coordinator is the chair of SIBL’s small business team, Betty Lacy, who maintains the site’s content and addresses technology issues related to the site’s daily operations. She also

oversees outreach activities to the metropolitan area's small business community; creates and presents classes at SIBL; represents the Library at trade shows, workshops, and small business seminars; and maintains relationships with organizations, nonprofits, and government agencies serving the small business community. Other SIBL staff will provide programmatic support, including data entry, editing records, reference work for the web services, and monitoring discussion groups. Staff of NYPL's technology and web departments will assist with the installation and maintenance of the network server and application and administration software. The Partnership for New York City's Web Coordinator will help NYPL design and develop the new site. Other partners will place counselors in the web forums as moderators and provide business experts to answer user queries. Technical assistance for the web-based video training component will be provided by Jeff Weiss, a consultant in educational technology whose extensive experience developing online curricula and pioneering web-casting for remote delivery of classes is widely recognized. Detail on staff and partner contributions can be found in the letters of commitment on pages 12-22 and biographical sketches on pages 28-29.

Implementation: Please see the attached timeline on pages 9-10.

Privacy: The Library is committed to preserving the privacy of its users. Any personally identifiable information that may be collected will not be displayed in public view. Any cookies used will serve only to enable users to save features on the site. Users may set up their own profile names to participate in the forums. With respect to privacy, the use of software to produce the online forums presents an advantage over an e-mail listserv. Names will not be collected on any user surveys and information about focus group participants will be protected per institutional, state, and federal guidelines. All information personally identifying focus group participants will be expunged at the conclusion of the study period.

Sustainability: The Library continually monitors advances in technology to keep services current and relevant to user needs and has staff in place to manage its technology services. The new services proposed are designed specifically to enable the Library's web staff and information technology staff to maintain, upgrade, enhance, and scale the site in the future to provide for increased usage and content and for new developments in the information industry. The Library will also be able to sustain these new services through the active and ongoing participation of entrepreneurs, small business owners, and community assistance organizations, who will be contributing their services free of charge during the project period and beyond.

¹ U.S. Department of Commerce, Bureau of the Census, data from 1999.

² "Small Businesses Slow to Grasp Government's Helping Hand", *The New York Times*, November 13, 2001

³ U.S. Department of Labor, Employment and Training Administration; U.S. Department of Commerce, Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics

⁴ The State of Small Business, SBA, 1999-2000

⁵ "Immigrant Entrepreneurs in 272 SMSAs," Light and Sanchez (1987)

⁶ "Diversity, Inc.," *American Demographics*, Ithaca, Oct 2001, Vol. 23, Issue 10, pages 22-23

⁷ "Businesses Tap SBA Lifeline," *Crain's New York Business*, January 7, 2002

⁸ "Small Firms Downtown Overwhelmed," *Crain's New York Business*, September 17, 2001

⁹ "Labor Groups Call for Jobs Programs," *Crain's New York Business* web-only article, March 13, 2003

¹⁰ "From Modest Business Loans, the Fulfillment of Modest Dreams," *The New York Times*, February 17, 2002

¹¹ "Not Enough Help," *Crain's New York Business*, October 29, 2001

¹² Prepared remarks of Kathleen Cooper, Under Secretary for Economic Affairs, Department of Commerce, to the House Committee on Small Businesses, February 7, 2002