FIELD Best Practice Guide: VOLUME 5

5

Business First:

Using Technology to Advance Microenterprise Development

FIELD
Microenterprise Fund for Innovation, Effectiveness, Learning and Dissemination

THE ASPEN INSTITUTE

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Project Overview

The impetus for this project grew out of years of extensive research by FIELD, the Microenterprise Fund for Innovation, Effectiveness, Learning and Dissemination, into the types of training and technical assistance provided by microenterprise programs across the United States. FIELD's research revealed that although more than 90 percent of all microenterprise programs provide training and technical assistance, there are few resources available to help implementers improve their services and/or assess their efforts against best-practice standards.

This project aims to address that need. Using grant support from the U.S. Small Business Administration and the Charles Stewart Mott Foundation, FIELD has created this series of "best practices" training modules designed to help microenterprise programs deliver more effective training and technical assistance to low-income clients.

These modules are based on lessons learned from FIELD's past work, as well as from input obtained from leading practitioners who served as advisors. As funding becomes available, additional guides will be developed. Topics for the six modules completed to date in the series are:

FIELD Best Practice Guide: Volume 1
Entering the Relationship: Finding and Assessing Microenterprise Training Clients explores how program practitioners can conduct market research, develop effective marketing strategies, and appropriately screen and assess incoming clients.

FIELD Best Practice Guide: Volume 2
Building Skills for Self-Employment: Basic Training for Microentrepreneurs offers best practices in core training and their implications for improving training services.

FIELD Best Practice Guide: Volume 3
Training for Microenterprise Development: A Guide to Curricula identifies the characteristics of an effective business-planning curriculum for low-income clients and reviews a set of products currently being marketed to practitioners.

FIELD Best Practice Guide: Volume 4
Keeping It Personalized: Consulting, Coaching & Mentoring for Microentrepreneurs provides a summary of findings from research in business consulting, coaching and mentoring with case-study examples of best practices in all three types of technical assistance targeted to low-income clients.

FIELD Best Practice Guide: Volume 5
Business First: Using Technology to Advance Microenterprise Development introduces a framework for selecting and planning technology to support business objectives and offers insights into how programs can assist microentrepreneurs with business automation, on-line learning and web-based marketing.

FIELD Best Practice Guide: Volume 6
Staying Connected: Building Entrepreneur Networks discusses how networking, associations and peer and affinity groups can support business growth and provides guidance on how to assess the costs and benefits of these strategies.

Introduction

Distance learning, Web site design, Web hosting, connectivity, e-commerce, video conferencing … and the list goes on – the list, that is, of ever-evolving features and opportunities that define the technological revolution. It is exciting, fast paced and mind boggling, opening new horizons in communication and information of every sort for everyone. Yet, amidst the whirlwind, practitioners of microenterprise development ask if there is a slice of this huge and diverse arena of opportunity that is 'micro'? What does this revolution in technology have to offer, realistically, to the home-based, part-time crafter or the car mechanic or the immigrant day-care provider? To ultimately answer this question, practitioners must address two others. How do microentrepreneurs learn about and eventually select the technological options that can help them improve and expand their business? And, what is the appropriate, viable role for microenterprise programs in helping their clients make such decisions?

Both persist as complex questions, even for the innovators who embraced new technologies early on to increase the scale, effectiveness and efficiency of their business services. They soon confronted the reality that their significant investments in technology upfront required ongoing expenditures on related inputs like staff training, maintenance and upgrades. In the absence of enduring financial support for technology, integrating information technology (IT) into program services for entrepreneurs began to feel more like a burden than like a golden opportunity.

Furthermore, the dizzying pace of technological change challenges the ability to make wise choices or to advise others on such choices, particularly when the 'others' are low- income, vulnerable entrepreneurs with limited resources. Yesterday's revolutions in high-speed Internet connections are today's white elephants, for example. And despite the allure of technology, old-fashioned manual methods and tools may still, in some cases, be the best way to meet an entrepreneur's needs. While the choice between a manual typewriter and word processing in the year 2003 may be obsolete, this was not the case just 10 years ago. A home-based entrepreneur who does not travel may find a manual Rolodex more practical than a palm pilot – at least for now.

Fortunately, the lessons learned to date can help microenterprise development organizations interested in technology integration to navigate through these challenging issues. Technology assistance is also available from not-for-profit intermediaries that see their mission to assist other nonprofits in keeping their electronic systems up to date.[1]

How This Guide is Organized

This Best Practices Guide focuses on technology that is used in direct service to microenterprise program clients. However, microenterprise development organizations expecting to offer quality technology services to clients must first get their own technological house in order. The same principles that programs are advised to teach clients should be used by managers in making technology-related decisions for their program. Because of this, the guide first introduces a strategic framework for integrating technology into business and then includes a discussion of program planning as the foundation for the client services discussed in the other chapters.

[1] Over the last decade, several nonprofit organizations specializing in technology assistance to community-based organizations have been established and strengthened. National and regional intermediaries include CompuMentor, NPower, Techrocks and Management Assistance Program for Nonprofits.

- **A Strategic Framework for Technology** presents the Business First Principle that should guide both program and client decisions and offers an organizing structure for assessing client needs and making technology decisions.
- **Charting A Course: The Technology Plan** explores the strategic thinking that programs need to undertake in preparation for offering technology related services.
- **Starting with The Basics: Automating the Office and Core Operations** focuses on client services, beginning at the bottom of the Technology Integration Ladder, encompassing the bottom two rungs.
- **On-line Learning for Microentrepreneurs** presents findings about the most complex and inquired about area of the Business Education, Communication and Information-Gathering objective.
- **Doing Business on the Web** continues the focus on client services with a comprehensive discussion of Web and Internet Marketing. This chapter discusses information technology issues related to developing and expanding markets, and presents the key considerations clients need to know in developing a Web marketing strategy.

Prior to these sections, however, the module includes an assessment tool. The tool is intended to assist practitioners to identify how well their current practices reflect best practices in this important and rapidly evolving area of service. The tool also serves as a guide to help readers identify which parts of the module might be most useful. In an area where an organization scores well, the reader might simply want to review the material to compare his or her organization's experience to that of others. In instances where the organization scores poorly, the reader will benefit from reading the whole section and engaging in broader discussions with other program staff about how some of the practices detailed here might be incorporated into their organization's operations.

Assessment Tool: Business First

Please assign one point to each item.

Technology Planning: My microenterprise training and technical assistance program:

__ Has created a technology team, representative of the key components of the organization, to lead our technology planning and implementation.

__ Has conducted market research with clients to determine the demand for specific technology-related services.

__ Has explored partnering arrangements as a primary strategy for accessing technology infrastructure.

__ Has developed a technology plan that identifies the program goals that technology will support, assesses current technology practices and resources, identifies how these will be upgraded, and includes the budget, tasks and timelines for implementing these upgrades.

__ Has made an informed decision about which components of our technology services will be managed by in-house staff and which by external consultants and applied careful screening and selection criteria for any outsourcing.

__ Has considered the total cost of ownership in all budget projections related to technology and developed a resource mobilization plan to secure both start-up and ongoing costs associated with them.

If your organization scores fewer than four points above, read The Technology Plan section, starting on Page 16. If your organization scores four or more points, you may want to refer to the sections of the document associated with any points you have missed.

Office and Business Automation: My microenterprise training and technical assistance program:

__ Has developed training and/or technical assistance services that help clients understand the pros, cons and costs of hardware and software options available for improving business operations and that help develop their own technology plans.

__ Has developed a strategy for building clients' skills in key software needed for business operations, including Windows, QuickBooks, Internet research and desktop publishing.

__ Has identified sources for microenterprises to access donated hardware and software, as well as make discounted purchases of these items, along with referrals to reliable technical support.

If your organization scores fewer than two points above, read the Automating the Office and Core Operations section, starting on Page 30. Refer to the sections of the document associated with any one item you may have missed.

On-line Learning: My microenterprise training and technical assistance program:

__ Understands the characteristics of clients able to take advantage of on-line learning.

__ Has undertaken research to determine the demand for on-line learning among potential customers in our target market and the availability of possible partners for offering the service.

__ Has addressed key design areas in developing on-line learning including curriculum adaptations, the level of interactivity, fees, trainer characteristics and appropriate follow-up services.

__ Has analyzed the cost implications of offering this service and developed sufficient resources, and a sustainability plan, for both the development of the product and its ongoing delivery.

If your organization scores fewer than three points, read the On-line Learning section, starting on Page 37. Refer to the sections of the document associated with any one item you may have missed.

Business on the Web: My microenterprise training and technical assistance program:

__ Has developed training/TA services that help clients develop on-line marketing strategies within the context of overall marketing plans.

__ Orients clients to the Web marketing "ladder" of technological complexity and encourages clients to gain experience at the simplest levels first and then move up as they gain greater experience and capacity.

__ Introduces clients to all the key concepts they need to know to make informed decisions about their own Web site development, including Web site creation options, Web site requirements for product versus service businesses, hosting and security.

__ Ensures that clients understand the total cost of ownership concept with regard to Web marketing and the demands involved in regularly updating sites to mirror the development of the businesses.

__ Has a realistic understanding of the costs and benefits of program-managed Web malls and has developed plans to help clients engage in Web marketing in ways that decrease their dependence on the program over time.

If your organization scores fewer than four points above, read the Doing Business on the Web section, starting on Page 53. Refer to the sections of the document associated with any one item you may have missed.

A Strategic Framework for Technology

The Business First Principle

Although the collective wisdom on technology services is evolving, it points first and foremost to a basic guiding principle – the business and its goals should drive decisions about technology. In other words, investments in technology should have tangible impact on an entrepreneur's ability to achieve specific business objectives.

While the allure of new technology tends to drive planning and acquisition, the business first principle dictates weighing a range of options – both manual and automated – for attaining a specific business objective. Best practice microenterprise programs maintain a focus on the simplest and most appropriate technology interventions that will address the identified business problem while facilitating the future stages of enterprise growth. For example, an entrepreneur anxious to expand his or her markets may target e-commerce capability as a solution when, in fact, what will be more useful is a comprehensive marketing plan that includes the Internet in a toolbox of electronic, print and in-person marketing strategies. In making choices about technology, microentrepreneurs and the programs that serve them need to first identify the business objectives or the stage of business growth that the technology will support. From there, they should look for the balance between immediate needs, financial constraints and the longer-term business vision.

The Technology Integration Ladder (and the accompanying explanations of the component business objectives) that follows offers a model for the integration of technology based on the business first principle.[2] For five distinct business objectives, it offers manual and automated solutions, as well as examples of services that microenterprise programs can offer, to support technology solutions. It serves as the organizing framework for this module.

Business objectives clearly form the core of this framework. Organized in order of complexity, starting at the bottom, each is described below.

Creating basic office infrastructure

Basic office infrastructure is the foundation of the ladder and the basis of all other technology integration efforts. The systems created for this business objective will impact the options available for attaining the other four more complex objectives. Any business should have office systems appropriate to its operating needs. This may mean setting up a filing system, voicemail, a fax machine and an account at a local computer/copy store. Alternatively, a computer with accessories

[2] This model is an expanded version of a simple technology ladder featured in Erika T. Malm, "Helping make Entrepreneurs 'Tech Savvy': The Experiences of Four FIELD Grantees," *FIELD forum* Issue 11 (March 2002); available from http://www.fieldus.org/Publications/Field_Forum11.pdf; Internet.

Business First Technology Integration Ladder

	Business Objectives	Potential Manual Solutions	Business Objectives	Sample Program Services to Support Automation
STEP 5	**Strategic Management and Planning**	• Manual systems for financial projections, sales forecasting, client data tracking	• Potential Automated Solutions • Integrated databases that calculate forecasts, projections, etc. automatically from business operational data	• Providing information or referrals on customized database development, existing Web-based systems
STEP 4	**Market Development and Expansion**	• Storefront • Catalog sales • Paper brochure • Direct mail or flyers • Media coverage	• Web malls • Web site • E-mail marketing • On-line marketing /Search engine placement	• Referral to Web marketing resources • Training about E-Bay, Amazon, Yahoo • Web site development training • Negotiating discounts with Web marketing and Web development specialists
STEP 3	**Business Education, Communication and Information Gathering**	• Manual research at industry, customers, suppliers • In-person classes • Phone or in-person banking • Phone or mail communications • In-person networking	• Web-enhanced research • On-line learning • On-line banking • E-mail communications • On-line networking	• Training / TA on Web research • On-line microenterprise development training • Facilitating on-line client networking • Providing/arranging Internet access • Negotiating Internet Service Provider discounts/access
STEP 2	**Improving Core Business Operations**	• Cash register • Sales logs • Manual bookkeeping • Manual inventory tracking • Paper customer lists	• Computerized point-of-sale system • Sales tracking software • Bookkeeping program • Inventory tracking software	• Training on software • Negotiated software discounts • Assisting clients to calculate the return on investment of automation
STEP 1	**Creating Basic Office Infrastructure**	• Rolodex • Typewriter • Desk calendar or planner	• Client contact software • PDA / Electronic contacts • Word processing • Computerized calendar / PDA[3]	• Computer loan program • Negotiated software discounts • Arranging access to computer lab

[3] Personal Data Assistant such as a Palm Pilot or Pocket PC.

that enables remote access to files may prove more appropriate depending on the business. Microenterprise programs can consider services that assist entrepreneurs in identifying and obtaining the right level of basic office infrastructure for their specific type of operation and stage of business growth.

Improving core business operations

All businesses need some type of system that facilitates the flow and documentation of business transactions. While a manual bookkeeping log may suffice for a start-up business, a growth-oriented entrepreneur may find it easier to stay disciplined and on track by using bookkeeping software. If the new entrepreneur's ultimate objective is to improve business operations and expand, an automated option may be the better choice.

Business education, communication and information gathering

To be successful, entrepreneurs need to continually learn – about the industry they're in, their customers and their competition. They need to advance their business skills and make connections to people and organizations that can help their businesses. For example, a business owner who wants to find cheaper raw materials for his or her products will likely benefit from using the Internet for research and e-mail for communication. If the same entrepreneur also wants to learn from others working in the same industry, she or he can explore several strategies including in-person networking, on-line networking or a combination of the two to find which is best suited to his or her personality and goals.

Market development and expansion

This objective relates to the entrepreneur's efforts to access new markets and to deepen the business' penetration of existing markets. This can mean employing a range of tools and strategies, depending on the nature of the business's industry, target market and owner's assets. Program staff can help the entrepreneur to determine when, and to what extent, a technological strategy is warranted, based on the overall marketing plan and an estimate of costs versus returns.

Strategic management and planning

When making future business projections and decisions, the entrepreneur should be able to anticipate how current trends will influence future outcomes. A mature business may have data from multiple sources that help its owner to make realistic forecasts. At this point, it may be useful to develop systems that integrate data for strategic planning purposes. Once a client's business has reached this level of need, it is likely that he or she has developed relationships with technical consultants who can help design customized databases. However, programs with strong management information systems and information technology staff may have the capacity to offer assistance even at this level.[4]

Using the Business First Technology Integration Ladder

Programs and entrepreneurs can use the Technology Integration Ladder as a guide to identify technological options appropriate for each stage of their businesses. In using this model, program staff should:

[4] This manual does not include a separate chapter on Strategic Management and Planning because the automated solutions related to this objective are highly complex and customized for each business.

- Clarify the core business problems that the entrepreneur needs to address.
- Help the entrepreneur inventory the current technical assets of the business.
- Use that inventory to determine where the business's existing technical capacity falls along the ladder and where the business is trying to make progress.
- Help the entrepreneur to identify potential technology (or non-technology) solutions as appropriate, keeping in mind the business owner's relevant assets, i.e., technology experience, available time, money and connections to potential service providers.
- Assist the client with research and help him/her analyze whether the selected solution is indeed the most efficient and cost-effective method for addressing the stated business need.
- Refer client to external technology resources and/or provide direct services, depending on organizational capacity.

Box 1: Using the Business First Technology Ladder: A Client Example

Bea and Bob are a husband-and-wife team who have owned a recreational vehicle storage facility and repair shop for 24 years. Their business net worth is valued at $700,000. They employ four people and draw a salary of about $36,000 annually. They recently computerized the bookkeeping operations but want to automate the parts inventory and labor tracking systems. Bea and Bob are also interested in developing a Web site for the shop. As Bea explains, "something eye-catching, that will set us apart from our competition."

They make an appointment with Gary, a consultant at a local business development program. Gary asks why they seek help. He probes for their level of computer experience and records the technical skills of the shop's employees, as well as the percentage of business proceeds that Bea and Bob anticipate spending on technology each year. On the Technology Integration Ladder, Gary notes that their goals fall under Improving Core Business Operations and Market Development and Expansion. He learns about the basic office infrastructure they use and speculates that their computer systems may be too old and slow to accommodate a comprehensive inventory tracking system. He suggests they invite a computer network specialist who volunteers for the program to come to their business to assess their current capacity and make recommendations.

Bea and Bob want a Web site to increase the number of passing travelers who rent their short-term storage facilities. Gary suggests that the couple first investigate how these target customers find out about storage services. He also suggests they consider updating their overall marketing strategy before resolving to invest in a sophisticated Web site, which they can do in a upcoming marketing class offered by the program. Although Bea and Bob are reluctant to spend time on a class, participation in the workshop will make them eligible for three hours of assistance from a local Web-marketing specialist.

A month later, the couple stop in to tell Gary that they are applying for a loan to pay for computer upgrades and the new inventory systems. After completing their new marketing plan, they decided to invest in placards placed at highway rest stops and gas stations. Using Web-publishing software, Bea is learning how to develop a simple Web site that tells people about the storage space and provides directions. She will work with a consultant twice a month to ensure that their site is reaching pertinent search engines and will review their total Web investment in one year.

Charting A Course: The Technology Plan

Programs need to consciously plan for technology-related inputs over time, ensuring that they contribute to the core mission. Yet, is a distinct technology plan really necessary?

Yes. Because technology is expensive, because its allure so easily tempts inappropriate investment, because today's choices are often tomorrow's mistakes, any organization seeking to incorporate technology-related services for clients needs a plan. Without such a blueprint, programs run the very real risk of offering clients services that do not meet demand, are frivolous or are disrupted due to lack of funding. This chapter provides guidance for programs on creating a technology plan as the foundation for services to clients. It defines a technology plan, suggests a process for developing one, offers some experience-based lessons in strategic technology planning, and finally, offers insights about the daunting challenge of funding the plan once it has been developed.

Why Develop a Technology Plan?

It is easy to make the case for a technology plan.[5] With one, programs are much less likely to waste money on the wrong types of technology. A plan allows the nonprofit to deliver more effective services to clients. Yet, the costs of developing such a plan and the challenge of funding are real factors working against it. Microenterprise programs face a serious uphill battle when attempting to secure funding for technology-based services because, put simply, demand exceeds supply. With an estimated 1.2 million nonprofit organizations in the United States and the sizeable capital investment that technology requires, donors cannot provide the full amount of funding needed to bring nonprofits into the digital age and keep them there.[6]

In the face of such intense competition, microenterprise programs are responding to technological advancements generally in one of two ways:

1. *Reactive* programs conduct business as usual and respond to occasional opportunities to acquire technology as they arise. These organizations typically determine that it is more important to pay salaries and overhead, and to ensure a steady focus on current services to clients, rather than to allocate scarce resources to the demanding work of technology planning, assessment and fundraising. The immediate benefits of this wait-and-see approach to the technology revolution include:

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[5] For this manual, FIELD focused on the portions of a technology plan that address technology needs and services for clients. Readers more concerned with technology issues at the organizational level, especially those related to management information systems, are referred to two other FIELD publications about MIS. Both are available through the FIELD Web site: www.fieldus.org: Charles Waterfield, *MIS for Microenterprise: A Practical Approach to Managing Information Successfully* (Washington, D.C.: The Aspen Institute/FIELD, September 2002) and Charles Waterfield, *2002 FIELD MIS Software Review* (Washington, D.C.: The Aspen Institute/FIELD, 2002).

[6] Lester Salamon, *America's Nonprofit Sector: A Primer* (New York: Foundation Center, 1999). (The estimated number of nonprofit organizations includes 350,000 religious congregations.)

- saving money and time spent on adopting technology that may become quickly obsolete;
- reduced risk of failure in new programming; and
- reduced risk of investing scarce resources on unfamiliar technology inputs.

The downside for programs that adopt a reactive approach to technology is the risk of becoming irrelevant in the long-term. Securing funding may become increasingly difficult as they become less able to offer germane, appropriate services to entrepreneurs. The environment in which entrepreneurs operate is being transformed by technology at a steadily increasing rate.

2. *Proactive* programs are determining that technology will ultimately improve their operational environment and capacity to produce positive impacts in their target communities. The leadership is willing to make the necessary changes in their strategies for fundraising,

Box 2: Proactive and Reactive Approaches to Technology

Program A has been offering microenterprise development services to rural clients for 15 years, achieving quality in-person services and a strong sense of community. The program leadership is not experienced in technology and is concerned about the scarcity of program funding. Seeing limited opportunities to raise the funds needed to offer technology services, the organization has not integrated technology planning into its annual strategic plan. However, one staff person has taken the initiative to provide some technology-related services to clients who cannot travel to the program's offices. She is stymied by an outdated server and a network that experiences problems on a weekly basis; plus, she is now the only staff person who knows how to update the Web site. When a technology funding opportunity arose suddenly, she was tasked with writing the proposal. Unfortunately, her proposed technology plan was rejected because it did not indicate how the new technology would build on an overall technology vision that would create sustainable, value-added services for clients. Program A is now faced with replacing its antiquated hardware systems before it can propose innovative technology solutions for clients. It is also challenged with staffing cutbacks and is trying to discern how technology can fill the staffing gaps and allow it to continue serving its existing client base.

Program B is also a rural program that has been offering microenterprise services for over a decade. The program's executive director made technology planning a central part of the board's and staff's responsibility five years ago. The program began by investing in technology infrastructure to improve its internal operations. Today, all field staff are able to access and update customer status reports and office schedules on the road by accessing the program network remotely. The program is directing its technology and strategic planning efforts to focus on serving additional, remote low-income customers. The executive director has assembled a staff team to focus on developing partnerships that will increase customers' access to the Internet, and has designed a plan to offer its current business planning courses over the Web. Although the organization is challenged by the current funding environment for technology, it was still able to make the necessary hardware and software upgrades to sustain the cost-efficiencies that technology has made possible.

Which program is more attractive to technology and microenterprise funders? See the text for the answer.

partnership, staff and systems development. And across the organization, there is a commitment to be entrepreneurial and to integrate learning about technology into existing systems, strategies and services. The advantages of a proactive approach include:

- new organizational expertise and systems to respond quickly and strategically to changes and opportunities in information technology and
- greater relevance to customers who benefit from the capacity to help them assess options for business technology.

In contrast, the negative consequences of being proactive are short-term in nature. The risks include:

- failed programming ideas, which inevitably accompany the process of innovation;
- interruptions in technology-related services to clients due to a lack of funding for the provision and upgrading of these services; and
- the negative effects of redirecting funds and staff time away from other priorities.

FIELD advocates for a proactive approach. When a program avoids the task of integrating technology into its overall mission, it loses critical learning opportunities and is more prone to think in terms of technology for technology's sake rather than technology as a tool for business goals. As a result, the program can end up with equipment that is essentially useless. This is precisely the wrong model to demonstrate to microentrepreneurs, who typically have even less of a financial cushion to invest in frivolous technology that results in neither increased revenues nor cost savings. As Hewlett Packard's Philanthropy Manager Camilla Nelson advises to both programs and entrepreneurs: "In selecting technology, focus on what you want to *do* rather than what you *want*."

According to TechSoup, an on-line service for nonprofits seeking to learn about technology, creating a technology plan helps nonprofit programs to accomplish the following:[7]

- Obtain funding
- Use technology effectively to further the mission
- Buy the right equipment
- Save money
- Avoid crises
- Use staff time more effectively

What is a Technology plan?

According to TechSoup, a technology plan is as important as the other core planning documents of an institution:

"A technology plan is a document describing how your organization will use technology to further its mission. A technology plan describes the current technology practices and

[7] Anna Mills, "Why a Technology Plan?," *TechSoup* Web site (May 04, 2000); available from http://www.techsoup.org/articlepage.cfm?ArticleId=97&cg=searchterms&sg=why%20a%20technology%20plan; Internet.

resources in your organization and describes how you will upgrade those systems over time to fully meet your needs. The process of technology planning involves assessing your existing resources, defining your needs, and exploring solutions. A successful planning process will draw on management support and the leadership of a technology team made up of a range of staff members to provide input. It will help you budget for technology and make cost-effective purchases. A technology plan is also a key tool to advocate for technology funding."[8]

Effective technology planning should be developed from a business perspective so that decisions directly relate to and support programmatic goals. Most technology plans include information that fits under the following headings:

- Organizational profile
- Technology vision
- Technology projects – description, benefits, tasks and costs
- Budget
- Timeline or critical path

In addition, a useful plan establishes target dates by which specific milestones will be completed, but includes sufficient time to account for the inevitable delays and challenges that come with integrating new technologies into an existing program.

Below is the technology plan for the Rural Enterprise Assistance Project (REAP), a microenterprise program of the Center for Rural Affairs in Nebraska. REAP's simple and straight-forward plan illustrates that a technology plan need not be complex nor long to be a useful tool. One of the most notable features of the plan is the section describing how specific technology goals will strengthen the program's work. By articulating the explicit connections between technology needs and mission fulfillment, REAP staff is in a better position to attract funding for and to make sound decisions about new technology-related services.

REAP Technology Plan

The **Rural Enterprise Assistance Project** (REAP) is a program of the Center for Rural Affairs, a nonprofit organization located at Walthill, NE. The primary goal of REAP is to strengthen rural communities through small, self-employed business development. To accomplish this goal REAP provides credit, education, networking and technical assistance through group and individual based programming. REAP operates in rural areas statewide.

Mission Statement

The Rural Enterprise Assistance Project (REAP) of the Center for Rural Affairs is committed to strengthening rural communities through small, self-employed business development.

Priority Outcomes

1. Make available and deliver, through the REAP Peer and Individual Programs, business development services to 500 new and existing program participants in rural areas by September 2002. A majority of these grassroots level program participants will be socially and economically disadvantaged.

2. Advance 350 existing self-employed individuals along a development continuum that allows them to improve and/or grow their business by September 2002.

[8] The TechSoup Web site Glossary: http://www.techsoup.org.

3. Achieve scale by: a) expanding to at least six more communities in the Midwest by September 2002

   b) decreasing the cost/client served by 10 percent by September 2002

   c) providing at least one new service to microbusinesses by September 2002

   d) developing an evaluation system that will provide information for REAP on participant and client target groups, poverty alleviation, credit portfolio performance measures, training and technical assistance activity, staff time allocation and related expenses, program cost and efficiency, and build the scale of the project to reach more people with less cost by September 2002.

4. Expand media presence by:

   a) placing two major daily newspaper articles and 50 weekly newspaper articles by September 2002

   b) participating in three Center for Rural Affairs Radio Reports by September 2002

   c) getting REAP recognized in at least one trade publication article by September 2002

REAP's current uses of technology

Staff uses: E-mail, loan tracking software, Office 2000 software, McAfee & Norton Antivirus, Intranet, Windows 98 and ME, Internet Explorer and Netscape, Outlook, stand alone fax/answering machines, PDF file reader (Adobe Acrobat).

Client uses: REAP currently provides e-commerce training for REAP members through the REAP Women's Business Center (WBC) project. REAP will use its Web site to provide networking and technical assistance opportunities for clients. Future trainings may take place around basic computer skills.

All staff will take a technology inventory that will include equipment, hardware, software, and personal training needs, and will research in their area the availability and price for faster Internet service (DSL, broadband and wireless). This will be completed and compiled by January 31, 2002. Will compile information and work on software uniformity issues.

Technology needs and objectives

- REAP Web site
- Software uniformity
- Faster service
- Staff training
- Digital camera
- Loan software
- Capability to use PowerPoint for presentations/trainings (LCD Projector)

How technology needs and objectives will help strengthen our work

REAP's proposed technology needs will strengthen our work and provide major benefits for staff and clients.

The REAP Web site will provide a professional look, improve networking and overall outreach for clients and improve our image. Software uniformity will increase the efficiency of staff and bring our field offices on par with the main office. Faster service will increase the efficiency of staff and allow for more time for client work. Staff training will increase efficiency overall and will give staff the necessary tools needed to do their job at the highest level. A digital camera will be helpful for the ease of importing pictures for Web site use and other uses like the newsletter. Updating our loan software will give REAP the necessary infrastructure needed to more effectively manage our loan portfolio. Using PowerPoint for presentations will provide for a professional look, improved image, and better clarity.

Timeline

■ January 31, 2002	Staff completes technology inventory, training needs, and faster service availability for their office and region
■ March 31, 2002	REAP Web site completed
■ As available	Staff hooked up to faster Internet service where possible
■ June 30, 2002	New loan software purchased, installed, and operational
■ TBD	Purchase digital camera
■ August 31, 2002	Complete software uniformity in each REAP office
■ As funds warrant	Purchase LCD projectors for staff use
■ Ongoing process	Staff training–specific needs identified through above

Creating a Technology Plan: The Process

Building a technology plan requires a diverse set of activities and skills from team building and organizational assessment to market research and strategic decisionmaking. In this guide, the process is broken down into the following parts:

- Create a technology team
- Inventory organizational resources and needs
- Conduct market research
- Make strategic decisions about program implementation
- Develop a budget

Create a technology team

The team method allows for different views and experiences with technology for a more comprehensive planning process. A technology team can be composed of staff representatives who know clients, board members with a passion for technology, and management. While the team leader does not have to be a technology expert, he or she should be constantly asking, *"how can technology help us to do that more effectively?"* This team should champion a systematic technology planning process for the organization; the more diverse it is, the more widely its 'champions' will be spread through the organization.

Box 3: A Technology Team at WREN

The Women's Rural Entrepreneurial Network (WREN) in Bethlehem, N.H. had a technology team comprised of its technology director, a VISTA volunteer, a Web design consultant, a networking consultant and instructors interested in technology-related training. When its technology director took another job, WREN could rely on the remaining members of this team to create its technology plan, apply for technology funding and enhance the program's technology offerings.

Inventory organizational resources and needs

For its first task, the technology team will undertake a review of current organizational systems and build an inventory of technology assets. Using the mission as the foundation, the team will determine how the current inventory is helping or hindering the fulfillment of the mission. It will consult with management and staff to identify upcoming programmatic needs and develop a list of the adjustments that could and should be made to technology assets in order to achieve programmatic goals.

The team will sort its comprehensive list of technology needs into relevant categories such as administrative systems, funder-driven requirements, and/or client-driven demands. Finally, it should prioritize these needs by those that must be met immediately, those that need to be addressed in the foreseeable future, and those that can wait.

Conduct market research

> "The design of the training products offered by an organization should be based directly on the specific business development needs of the market segments it serves. Therefore, having a detailed understanding of a program's client characteristics and the service needs of each of these individual market segments is critical to best practice in program design."[9]

The "build it and they will come" mentality is both prevalent and precarious. In planning technology-related services, it is more important to know the technology's application and likely outcomes with the target market, than it is to know all of the technology's features. Technology plans need to respond to market demand first and foremost. Market research can inform programs about the demand for potential services and delivery mechanisms. Focus groups and customer surveys provide important feedback. Intake forms that assess the clients' level of understanding about technology and their technology goals for their businesses will help programs to understand clients' skill levels and needs. TechLink NH has an on-line assessment form that can be used or adapted by any microenterprise program to help define clients' technology skill levels.[10]

Inadequate understanding of the market has led to numerous errors in judgment about technology services. For example, few of the microenterprise program-sponsored "Web malls" (on-line shops for ordering clients' products) have achieved significant sales or on-line transactions. Even Count Me In's (CMI) on-line shop (www.count-me-in.org), which benefits from the extensive national marketing of Count Me In's microloan products in mainstream media, has shown disappointing sales volume. However, the Count Me In Web mall, along with

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[9] Joyce Klein, FIELD Best Practice Guide: Volume 1: *Entering the Relationship: Finding and Assessing Microenterprise Training Clients* (Washington, D.C.: The Aspen Institute/FIELD, August 2002); available from http://www.fieldus.org/publications/PrimeVol1.pdf; Internet..

[10] TechLink Web site, *Self Assessment Tests*; available from http://www.techlinknh.org/evaluate/; Internet. A version of this tool is available in the Tools section at the end of this document.

Box 4: Effective Market Research

When Tara Holt, Director of The Center for Technology and Business in North Dakota, set out to open a Women's Business Center, she had to confirm her instincts that technology assistance represented a critical gap in the business development services. Visiting business owners around the state, Holt learned that many had computers, but few were using them. When entrepreneurs experienced inevitable computer problems, they had no one to turn to. Out of sheer frustration, some had abandoned the use of computers altogether, and were particularly reticent now to learn how technology could help their businesses.

When Holt received funding from the U.S. Small Business Administration in 1999, she conducted market research to understand what services entrepreneurs lacked. Holt then developed a 12-hour curriculum with assistance from prospective students who provided feedback on training materials. A local research lab allowed Holt's new center access to its eight computers at no cost. The Center for Technology and Business was born, offering classes to the public (not strictly entrepreneurs). At the end of the three-month pilot, the Center for Technology and Business had served 350 students and began to venture into other communities, partnering with schools willing to share computer labs for community use.

As the program grew, Holt realized that she could not continue to travel and train all over the state, so the center partnered with economic developers to create a "train the trainers" program. She asked local economic developers to choose a strong leader and communicator to deliver the local training. (Expertise in technology was not required.) Over three years, the center has developed five curricula, trained 10,000 adult students and set up training centers in 55 communities. Students from 208 communities (79 percent rural) have been served and 72 part-time trainer jobs – with wages of $15-$30 hourly – have been created. Holt credits the success of the statewide program to its extensive market research phase and to its collaborative, incentive-based partnerships.

a few others, has attracted the attention of sales representatives who have contacted the program to inquire about business-to-business deals. Based on this experience, such program-based product sites could be built without offering on-line ordering functions such as shopping carts or credit card processing; they work better as a display site and source of basic information regarding entrepreneurs and their products.

Make strategic decisions about program implementation

While market research will help identify which technology-related services clients need most, program managers still face many critical decisions about how to offer them. Because these are expensive decisions tied to a highly competitive funding landscape, program leaders need to be very strategic about how they integrate technology into their core operations.

While not yet "best practices," the following, emerging strategies for supporting the initial development and ongoing maintenance of technology-related services are among the most successful to date. They are used by proactive programs and recommended by funders experienced in technology-related grant making.

Strategy 1: Explore partnering arrangements as the primary strategy for accessing technology infrastructure.

Microenterprise practitioners often assume that their first step in designing technology-related services is to build a computer lab where entrepreneurs can receive training and access IT resources on a reliable basis. They expect the infrastructure will enable the program to offer business training – made more relevant when clients conduct hands-on marketing research on the Internet, complete automated financial statements, and investigate on-line banking, for example. Obviously, client access to technology is a basic building block for any technology-related service. Yet, strategically, programs have to find ways to use existing technology infrastructure and resist the compelling urge to do oneself what others offer. In this climate, the duplication and low utilization rates of computer centers have made funders reluctant to support new ones, especially if the proposed center does not reflect broad partnerships reaching multiple constituencies. Boxes 5 and 6 offer examples of such partnerships.

In many geographic areas, other organizations such as community colleges, community technology centers, schools, workforce development centers, corporate training centers, or assisted living centers maintain a cluster of Internet-connected computers for their constituencies. These organizations are sometimes willing to negotiate terms under which microentrepreneurs may access their computer centers. In rural and other areas where no such resource currently exists, cooperative arrangements could lead to sharing the costs of creating and managing a computer lab for multiple constituencies.

It is typically more cost-efficient and sustainable to create a cost-sharing and usage plan with partners at the outset, rather than to build a lab independently with the intention of recruiting additional partners or users later. Without comprehensive usage plans designed up front, computer centers often stand empty for large blocks of time because even those entrepreneurs who do not have computers at home are likely to access one through a friend, relative, work, or a library.

Finally, exploring partnership arrangements is a strategy to consider in its own right. The microenterprise field is beginning to experience a subtle restructuring, as the need for resource-intensive technology necessitates alliances between independent organizations. These alliances may result in an increase in the rise of dominant service providers in the field, those able to deliver more customized, convenient and market-oriented services than can small, stand-alone programs. Such alliances, made possible due to Internet-based portals, and the sharing of technology infrastructure, may increasingly influence how microenterprise services are delivered in the future. For example, MicroMentor (www.micromentor.org), a project of FIELD, is in the process of developing strategic partnerships with several technology-based business assistance tools. Recently, an alliance was created between MicroMentor and Count Me In an on-line microlender and provider of business assistance to

Box 5: Nonprofit Shares Computer Center with the SBA

Grand Rapid Opportunities for Women (GROW) in Michigan offers all of its introductory training at the Business Information Center funded by the U.S. Small Business Administration. The center's computers are equipped with the templates needed for GROW's business planning training. Computer specialists on site address clients' technical questions, leaving GROW's staff to focus on business-related assistance. By sharing the Business Information Center with the three other SBA-funded programs in the region – each serving a different level and target group of entrepreneur – GROW and its fellow business development programs have increased client loads through coordinated referrals and outreach.

women entrepreneurs. The agreement will allow potential Count Me In borrowers to access mentoring services, which the organization believes they will need to become loan-ready, as well as enable MicroMentor protégés to access loans through Count Me In, when these are not available through their local microenterprise service provider.

Box 6: Lots of Options

Valley Economic Development Center, serving Los Angeles and surrounding areas, trains clients on computers throughout the metro area – at local libraries, work force development centers or at business technology centers.

Even though such alliances may represent the service delivery model of the future, partnerships are usually a challenge to sustain. Box 7 offers tips for building successful partnerships.

Strategy 2: Use the insights and experience of IT professionals, but let the vision and skill sets of program staff drive the design and implementation of technology-based services.

Because the incorporation of technology-driven services generally requires new organizational competencies, programs need to determine how far they are willing to go in this direction. Essentially, management must decide whether to build in-house expertise in technology to implement related services or secure the necessary skill sets by contracting with external resources. Some organizations are using their in-house technology expertise to diversify their services to clients and in the process, create new income streams. For example, several programs with computer labs offer technology training to corporate employees; others are attempting to offer Web site development services to other community-based organizations. Yet, in a competitive environment rich in technology resources, *outsourcing* to technology specialists such as community technology centers, universities, or private sector providers enables programs to provide quality services more efficiently and with more cost effectiveness.

Box 7: To Improve the Chances for Successful Partnership

- Look for a partner with similar strategies, philosophy, or that is generally serving the same target group.
- Remember that technology access partners are ideally located in areas where there is already a beehive of community or commercial activity.
- Ensure up front that the partner(s) share your vision, agree with your assessment of the needs and concur with the proposed solution and timeframe.
- Confirm where the partner perceives its responsibilities beginning and ending in relation to those of your organization and other partners.
- Verify each partner's past experience, track record and current capacity to implement his or her portion of the plan.
- Develop a written memorandum of understanding that makes explicit each partner's responsibilities in the partnership and details methods of compensation (if any).

The advantages of outsourcing include access to specialized expertise that is informed of current IT trends; reduction in costly trial and error and higher quality products and services. Staff receives the training they need to fulfill their specific responsibilities in relation to the technology, but are not diverted from their primary role within the organization. Often external consultants can smooth staff transitions and fill gaps when staff is missing. But these advantages are neither automatic nor inherent in outsourcing. Their realization depends on choosing the right consultants and investing enough time to fully orient them to the task at hand.

Unfortunately, the field is strewn with sad stories about outsourcing relationships that have gone bad due to lack of communication between program and consultant, a clash of cultures and mismatches between the contracted technology product and the program objectives which it was meant to serve.

In order to protect the interests of the program, management can consider the following:

- Find and cultivate a technology advocate – an experienced staff or board member, trusted volunteer, partner or consultant – on whom a program can rely during times of technology planning and acquisition.[11] That person must understand the context of microenterprise development in general and the program mission in particular. This familiarity will help such a technology advisor to ensure that business and program objectives drive technology purchases, rather than the other way around.
- Avoid the advice of a short-term consultant or private sector provider who may have a stake in the decision outcome. Many organizations report having been sold on a system or tool that has proven inappropriate for their context.
- Beware of "tech talk." Most consultants will give an initial free overview of their services. Staff should understand what the consultant can offer the program in the first meeting.
- Look for someone who can explain IT resources in basic language and help plan ahead to grow an IT program at a pace that fits a program's budget and mission.
- Work closely with the contractor to ensure that she or he understands the program's IT goals (Please see the Tools section of this module on page 71 for guidelines for hiring outside help.)

Box 8: One Organization–Two Different Experiences With Outsourcing

AcceleratorOnline, which created business plan training on the Web (www.acceleratoron-line.com), outsourced its relatively complex Web development needs to a local service provider called Vision One for $37,000 plus an in-kind contribution by Vision One staff. AcceleratorOnline staff learned over a five-hour period how to make changes to the Web site to keep costs down but did not need to spend time learning Web site programming. AcceleratorOnline also outsourced all of its technology installation and maintenance to the Fresno State University technical staff, which then became an unbiased source of information and guidance on the acquisition of new technology tools. Because they did not have to navigate through the technology terrain themselves, program staff could stay focused on original program goals and complete the development, testing, and delivery of its training to 395 participants in a 16- month period.

In another contractual arrangement to produce a CD-ROM to accompany the Web-based curriculum, AO allowed the technical specialist to drive the creative process – with unsatisfactory results. In contrast to its experience with Vision One, which involved a lot of dialogue about how to communicate effectively with small business owners, the AO administrator admitted, "There was no clear picture of what was needed from our hands or what the final product should look like." In the end, AO was presented with a final product that is not representative of the program and not used in its course delivery.

[11] For more information on selecting a vendor or consultant, see: Waterfield, *MIS for Microenterprise*

Strategy 3: Consider all of the costs of ongoing maintenance, upgrading and project implementation in budget projections, include line items for technology in every budget and look for cost saving options.

The Total Cost of Ownership concept encompasses all components of owning and operation technology – including training, technical support, software, replacement and connectivity – and is critical to all technology services.[12] Realistic budgeting from the beginning will help programs provide continual and reliable services to clients. Programs are sometimes taken by surprise at the ongoing costs of maintaining a technology service and can have difficulty fundraising for maintenance infrastructure. By anticipating these costs from the start, they can also help to educate their funders about the ongoing costs associated with a new service.

Box 9: Technology Budget Line Items

- Staff training (ongoing as new staff are hired)
- Equipment and equipment upgrades
- Software and software upgrades
- Back-up/data storage
- network security (e.g. firewalls and virus protection)
- Licensing
- Warranties
- Service contracts
- Internet connection costs
- System management
- Web site hosting and maintenance
- Supplies (e.g. toner, paper, peripherals)
- Disability access considerations
- English as a second language access considerations

Every budget request should include a line item for technology. A standard portion of technology costs should be written into overhead or as a general administration cost for all project proposals. The Northeast Entrepreneur Fund (NEEF) budgets for a minimum of two to three new computer systems per year. Setting aside this amount annually allowed NEEF to purchase a new network server when it needed one last year. CAP Services in Wisconsin requires each of its departments to set aside 2 percent of its total budget for technology upgrades and training. This allows the organization to meet the goals set out in its three-year technology plan.

Despite the significant investment that technology services typically require, there are cost-saving options to consider. Err on the side of starting "low tech" before going "high tech." For example, test out training delivered through a Web-based conference calling service with mailed hand-outs before investing in expensive video conferencing or Internet training. This allows a program to gauge possible reactions to and challenges of more advanced technological solutions.

In-kind donations of expertise and time can be helpful, especially from trusted sources. However used hardware and software should only be considered in the context of the total cost of ownership, which is often high enough that programs lose money trying to piece together old or incompatible systems. Free expertise from volunteers, VISTA and student teams can lower the ongoing costs associated with technology-related services.

[12] For more details on Total Cost of Ownership planning see Summit Collaborative Web site, *Summit Resources*; available from http://www.summitcollaborative.com/resources.html; Internet.

Finally, the introduction of technology will likely lower an organization's efficiency initially. Staff time in training, smoothing out technical bugs, and integrating new technology into existing systems will take time in the short term, but should save both time and money in the long run.

Funding the Technology Plan: The Evolving Role of Funders in the Technology Age

Funders of microenterprise development programs are engaging in a range of new strategies to assist nonprofits in applying technology to their work. They are supporting learning networks for both program staff and donors. For example:

- The executive director of GROW (www.growbusiness.org) in Grand Rapids, Mich. participates in the Nonprofit Women's Technology Forum, which was established by the Nokomis Foundation.
- Several funders, including the foundations at Verizon, Benton, Knight and Packard, support the Technology Affinity Group (TAG), a learning network for grantmakers. The mission of TAG is "to advance the capacities of philanthropic organizations through the use of technology."
- The AOL Time Warner Foundation and Microsoft Corporation support Techsoup (www.techsoup.org), a primarily on-line service with a wealth of information for nonprofits seeking to learn about technology. Techsoup includes on-line community options for nonprofit professionals, with 15 discussion board topics ranging from Internet fundraising to computer security issues.
- TechFunders (www.techfunders.org) is a collaborative of self-selected funding organizations which engage in technology-related grant-making.
- Fifteen foundations have supported the Nonprofit Technology Enterprise Network (N-TEN), which, as stated on the www.nten.org site: "supports the people who provide technology services to the nonprofit sector by creating opportunities to identify peers and develop professional support networks, share information and resources, and work collaboratively on a range of projects." N-TEN's site provides information about regional conferences and nonprofit resources, both on-line and in person.

In addition to supporting networks for obtaining and exchanging practical advice about technology, funders are contributing important lessons from their own experiences. Hewlett-Packard's philanthropic efforts focusing on Digital Villages and community development have highlighted the importance of certain principles for funders to consider when assessing technology-related requests. The Technology Opportunities Program, which has invested over $200 million in 555 grants, has a wealth of experience and lessons in technology-related investments. The Community Technology Foundation of California, founded in 1998 by 134 community organizations and Pacific Bell, focuses on providing California's underserved communities with full and equal access to basic and advanced telecommunications services. These experienced technology funders have identified the following issues and guidelines:

- Ask funders for help in identifying and developing partnerships. They may know of regional or national intermediaries that offer valuable resources to nonprofits, including access to hardware and software. Funders may be in a position to initiate the relationship-building process that is so essential to a successful technology initiative.
- Programs that have assessed their non-technological needs first and then determine how technology can be deployed to meet those needs will be more favorably reviewed by funders.

- Organizations should diversify funding sources for technology and incorporate sustainability plans into project implementation as soon as possible. At the same time, programs can educate funders about the time it takes to complete product development and to progress to a stage focusing on sustainable service delivery (perhaps five to seven years). Presently, the community development landscape is littered with technology projects that were started and are now dormant for lack of ongoing funding. Organizations that stand out during competitive grant reviews are both realistic about the time required to develop a technology-related service and bold in creating possible solutions for sustainability.
- Programs should take the time to document the cost savings, increased service delivery and ultimate outcomes that technology enables. Doing so will allow nonprofits to demonstrate to funders the value and importance of maintaining technology infrastructure.
- Funders are more willing to fund unglamorous, yet essential, infrastructure as long as technology needs are integrated into an organization's overall budgeting process and sustainability plan.

This chapter advocates for a technology planning process leading to services that respond to market demand and organizational goals. Technology plans serve as protection against impulsive choices, ill-advised investments and inefficient trial and error. Equally important, they are essential to secure funding in an increasingly competitive environment. In a period of rapid technological change that few can keep up with or understand, careful planning helps the practitioners control the technology they use and avoid the reverse. While many business problems still call for non-technological solutions, IT can't be ignored; it is changing the way business is done at all levels. Consequently, donors, practitioners and clients are facing challenging, yet exciting, decisions. With emerging technology resources identified in this chapter and throughout the module, working together they can find the appropriate solutions.

Starting with The Basics: Automating the Office and Core Operations

Returning to the Technology Integration Ladder, and assuming that your organization has followed through with a technology plan that will support client technology services, this chapter focuses at the bottom of the ladder on a clients' most basic infrastructure needs and business challenges. Two objectives – creating basic office infrastructure and improving core business operations – are discussed in tandem here as Office and Business Automation. Computerizing the office and/or core business functions are usually the first steps entrepreneurs take to integrate technology into their businesses. Programs respond, typically, in three ways:

1. Helping clients understand the pros, cons and costs of hardware and software options
2. Training clients to use specific business software
3. Facilitating access to technology

Educating Clients About Hardware and Software Choices Including the Internet

This service consists of two essential steps: 1) finding an appropriate match between the clients' comfort, skills and goals vis-a-vis technology and the available hardware/software options; and 2) educating clients about the key guidelines or principles that will help them select among the many options.

The best advice about technology results from an understanding of a client's starting point. What is the current level of computerization in the business? What skills does the entrepreneur bring to the process? What is his or her comfort level with computers? What does the entrepreneur want to accomplish with technology? Using these questions as the backdrop, staff should stress the following guidelines with clients:

- Make sure that business decisions or needs drive the choice of technology. Place any decisions about technology purchases within the context of the overall business, weighing its current needs, future direction, and financial assets and outlook.
- Calculate the Total Cost of Ownership. Research and analyze all immediate and future costs associated with a specific technology investment to avoid pitfalls such as that outlined in Box 10.
- Consider both manual and technological solutions to each problem.
- Develop a simple technology plan to guide technology-related decisions over a period of years, and review it annually.

- Be prepared for frustration. Find patience. Even though a 'business first' perspective and realistic cost assessments will help avoid many technology pitfalls, getting the technology to work for you consistently will take time, trial and probably some amount of error.

Beyond this, program staff should remain cautious advising clients about actual purchases of business and office technology tools. First, it may be difficult for business counselors to know all of the necessary information about an entrepreneur's computer preferences, the wiring of his or her physical location, compatibility with other equipment, or the most recent product bugs or upgrades. Second, it is valuable for clients to obtain advice from specialists outside of the microenterprise program to avoid over-reliance on or confusion about the role of program staff.

Box 10: Total Cost of Wireless Internet

A salesperson told Melissa that she could use a handheld computing device to access her e-mails via the Internet while away from her home office. Because getting e-mails from her customers while on the road could save on travel expenses, Melissa purchased the $300 device with confidence that she would re-coup her investment in a matter of months. However, she soon discovered that the Internet service would cost $64 per month, plus $75 for the initial connection. Melissa was dismayed to learn that her new technology would actually cost her over $1,100 for the first year.

However, there are many stories of clients who have been persuaded to buy an inappropriate system or software package by salespersons. Therefore, programs should nurture relationships with unbiased, third-party technical experts to whom they can refer clients. Staffs at a computer lab or university-based technology centers or program volunteers who have agreed to field inquiries from program clients have fulfilled this role. Finally, Tech Soup (www.techsoup.org) has numerous articles and message boards dealing with hardware and software purchases.

Connecting to the Internet

When considering hardware and software purchases, clients will also need to establish how they will access the Internet. Again, programs can help clients understand their options and ensure that clients ask themselves and potential service providers the right questions.

Some entrepreneurs and programs have limited connectivity options given their geographic location. In these cases, accessing the World Wide Web can be an exasperating experience, exacerbating the other challenges of offering technology services in rural areas – namely the lack of service providers and the time required to reach distant clients. For example, a business consultant from Southern Oregon Women's Access to Credit (SOWAC) traveled to a client's home in the mountains to evaluate and provide feedback on the microentrepreneur's Web site. It took nearly 30 minutes for the Web site to download due to the area's slow Internet connection. Some organizations form partnerships in an attempt to increase connectivity options. The Northeast Entrepreneur Fund is working with a workforce development center and a new technology incubator called Tech North Prep, which will provide high speed Internet access for NEEF clients. In rural New Hampshire, WREN has reached an agreement with a regional cable service provider for high-speed access for its Technology Center resulting in faster access for both the organization and its participants.

Box 11: Questions to Ask Clients About an Internet Connection

Do you live in an area where you have a choice in Internet service providers (ISPs)?
To find out what ISPs are available in an entrepreneur's geographic area, see the following web sites: www.thelist.com, www.isps.com, www.ispcheck.com

Do you need high-speed access? Can you afford the cost of high-speed access?
See the Internet Connection Options Tool in the back of this Guide for the pros, cons and costs of various connection types.

Will you need to access the Internet while traveling outside of your local area code?
Tell clients to ensure that their ISP has local access numbers for the area codes to which they travel or use a national ISP that provides local access numbers in these area codes. (Note that many 1-800 numbers provided by national ISPs are not toll-free.)

How would your business be impacted if your ISP went out of business?
Suggest that clients obtain a permanent e-mail address, such as Yahoo! or Hotmail or use a business-related domain name that is not dependent on their ISP.

Teaching Clients How to Use Specific Software Packages to Improve Business Operations

Training is the second common technology service that programs provide to clients at this level. FIELD's research shows that clients most frequently ask for training in Windows, bookkeeping assistance, Internet research, desktop publishing, and use of digital cameras and scanners.[13] As described in the previous chapter, programs approach training in a variety of different ways – offering it themselves, partnering or outsourcing.

For most situations, a combination of classroom training and one-on-one technical assistance is ideal, allowing participants to receive the individualized attention that is essential to mastering business software programs, while affording programs the cost-saving benefits of group instruction.

Programs have experimented with delivery mechanisms to determine which work best for different training topics. The need for one-on-one assistance is especially clear for

Box 12: A Training Partnership

Washington CASH created a partnership to deliver basic and business-related technology training for entrepreneurs. Although the program received a contract from King County, Washington, to provide basic computer training, it had neither the funds nor staff to build a computer lab for this purpose. Instead, Washington CASH developed a partnership with a nonprofit community technology center, which provides flexible access to its computer lab as an in-kind donation. Classes on computer and Internet use, Web site development; and QuickBooks for business are offered to the community. The program learned that it is impractical to put more than one trainee on a computer, so class size is limited by the number of computers in the lab. However, the community computer center encourages trainees to use the computers on their own time and its staff is willing to provide one-on-one assistance as requested.

[13] FIELD Web site, *Learning and Innovations: Follow-Up Services Learning Cluster*; available from http://www.fieldus.org/li/follow-up.html; Internet.

individuals who are either brand new to computers or who want to learn more advanced software programs, such as bookkeeping, spreadsheets and desktop publishing. Programs have also found that classes are most effective when structured to allow entrepreneurs to apply one of their own business tasks during the training. For example, when learning a graphics program, clients will create their own business cards or letterhead as the goal of their session.

Many programs find that it is only effective and efficient to offer technology courses that relate specifically to entrepreneurship, leaving the basic technology training to local community colleges, community technology centers and other technology-focused organizations. Coastal Enterprises, Inc. offers training in QuickBooks and the design of cash flow statements using Excel spreadsheets but prefers not to offer basic computer literacy when others in the community are already doing so. Others integrate technology training directly into their traditional business development classes as described in Box 13.

Box 13: Integrating Business and Computer Skills Training

Florida Atlantic University (FAU) offer business training for microentrepreneurs in English, Spanish and Haitian Creole in computer labs located in faith-based organizations, libraries and other community-based organizations. The ten-week program covers basic business concepts and includes three weeks of computer and software training. They integrate technology into the business curriculum, using it as a tool to support various sections of the course. This training includes basic word processing; Excel, QuickBooks, Quicken and Microsoft Money for accounting purposes; and MS Publisher for desktop publishing needs. Clients also use the computers to go online to do market research. Finally, trainers arrange for each class to visit the local library for a small business resources tour that includes when they can use the computers on their own time.

Client demand for training in QuickBooks and graphics software is particularly robust. These products provide good examples of "business first" services.

QuickBooks seems to be popular for several reasons. In rural New Hampshire, for example, local banks actively encourage potential and current borrowers to provide business financial reports using QuickBooks. In response, entrepreneurs have signed up with WREN to receive QuickBooks classroom training and follow- up e-mail assistance. Other programs, such as Washington CASH, teach manual bookkeeping in its basic business classes but find that existing business owners like the increased level of control over business finances and planning they get with the automated program. However, because QuickBooks can be difficult to master, programs have to experiment to find the right training format for their clients. The following have been used.

- Two days of eight-hour seminars; (Participants were overwhelmed by too much information in too short a timeframe.)
- Two-hour QuickBooks sessions per week over a five-week period, plus individual assistance throughout the course to help participants set up and use the program on their own. (This works very well for those microentrepreneurs able to devote a few hours each week to both learning the software and integrating it into their businesses under guidance from the instructor.)
- A QuickBooks package that includes QuickBooks software and one year of support for approximately $180. The support is available as an individual session four times per year with a certified QuickBooks trainer. (This provides the on-going guidance needed to fully engage the

client and ensure that he or she has a financial management system that works for his or her business.)

While the specific format a program chooses will be determined by its context and clientele, individual assistance should be available. Most clients need help to set the program up on their computer and to overcome initial fears about doing something wrong. It is not uncommon for new QuickBooks users to be hesitant to delete or void transactions for fear of muddling their whole accounting system.

Finally, QuickBooks trainers should possess solid bookkeeping and teaching skills, as well as a broad understanding of business development. At a minimum, trainers need to be able to explain and manipulate debits/credits, accounts receivable/accounts payable, and balance sheets. They also need to be skilled at working with trainees' unique business contexts to make connections between the software's features and clients' immediate business needs.

Like QuickBooks, graphics design software programs can be an empowering tool for microentrepreneurs. WREN staff reports great success with their desktop publishing classes, both in terms of enrollment and skills acquired. Once basic desktop publishing has been demystified, many WREN trainees also learn how to use Photoshop and a digital camera.

Box 14: Graphic Design as the Entry Point to Computers

Lisa, a client of WREN, needed help with marketing materials and packaging. She had an idea of what she wanted but couldn't afford a graphic designer and did not have the skills to design them. Starting with no computer experience, Lisa worked her way through WREN's technology classes, learning how to create labels, design brochures on Microsoft Publisher, and use a scanner for graphics and digital photographs. Working with WREN's equipment allowed her to experiment without a large investment. She eventually bought her own computer and now cannot imagine operating her business without it. Lisa thinks that she learns best one-on-one, but was able to grasp general concepts in WREN's classes. She followed up with the instructors for help with questions specific to her business.

Facilitating Equipment and Software Purchases

In addition to helping entrepreneurs understand when the time is right to purchase a computer, and the full range of costs involved, programs are experimenting with the best ways to increase clients' access to technology.[14] Services that are being tested include:

- Providing refurbished computers
- Facilitating access to technical support providers
- Obtaining software donations
- Computer loan programs

Refurbished computers

Used or refurbished computers are available from numerous sources including private companies that upgrade their technology and vocational programs that rebuild computers in class for donation to nonprofits. To make their needs known in the business community,

[14] TechSoup provides a description of the basic computer components to consider when purchasing a computer. TechSoup Web site, "An Introduction to Hardware," *Articles: Hardware* (May 6, 2000); available from http://www.techsoup.org/articlepage.cfm?ArticleId=132&cg=searchterms&sg=an%20introduction%20to%20hardware; Internet.

microenterprise programs should notify chambers of commerce and other economic development groups. Several national programs are collaborating with leading technology companies to manage donations of technology. Three such programs are:

- DiscounTech: A new service of Tech Soup, DiscounTech is a technology product distribution service for nonprofits. For an administrative fee, nonprofits can order donated and discounted software and essential technology products.
- Gifts-in-Kind: Funded by 3M, Gifts in Kind manages donations of computers by top manufacturers and retailers, including 40 percent of the Fortune 500 companies.
- Microsoft Authorized Refurbisher (MAR) Donation Program: This program provides Windows 98 and Windows 2000 operating systems to U.S.-based nonprofit PC refurbishers. Its mission is to make more refurbished PCs available to nonprofits, K-12 schools and technology access programs.[15]

Most of these programs will prefer to work through nonprofits as intermediaries and will not make donations directly to entrepreneurs. Box 15 gives an example of a creative process for providing affordable computers to low-income clients:

Box 15: Fundraising with Used Computers

One technology based nonprofit collaborated with the vocational educational department at a local high school to refurbish computers. At its annual computer swap-meet, the organization offers these refurbished computers at $50 to low-income individuals, microentrepreneurs and small nonprofits. The swap-meet provides a fund-raising mechanism for the nonprofit, as well as low-cost computers for its clients. For ongoing technical support, the organization partners with a few local hardware professionals who provide technology support at below-market costs.

Software donations

Programs secure donations of software for their clients from institutional and individual sources. For example:

- TechSoup offers deeply discounted Microsoft software to nonprofits through the DiscounTech program described above. However, microenterprise programs can only take advantage of this opportunity once every two years. By limiting nonprofits' access to these discounts, DiscounTech encourages proactive technology planning.
- Grand Rapids Opportunities for Women receives donated copies of QuickBooks from the U.S. Small Business Administration, which allows the program to offer quarterly training seminars and provide the software to graduates.
- Washington CASH has been innovative in its approach to providing its low-income clients access to software and services. In one case, to be eligible for a limited number of donated ACT software packages, clients had to enter a competitive selection process by submitting a paragraph describing how they would use the software to grow his or her business. Winners were trained to use the software. This process forced recipients to do some planning of their own, while the training allowed the entrepreneurs to understand the

[15] More information about the program and eligibility guidelines can be found at: TechSoup, *Microsoft Authorized Refurbisher Donation Program*; available from http://www.techsoup.org/mar/Default.asp; Internet..

application of the software and how they would use it for their business. In another case, a volunteer has offered to screen and connect clients to a local firm offering free Web site hosting. These clients receive free Front Page Web development software from the program.

Computer loan programs

In Lexington, Ky., Community Ventures Corporation offers clients small loans to purchase a desktop personal computer and monitor. The hitch is that to be eligible, entrepreneurs have to complete classroom training on business uses of the computer, including inventory control, financial management and marketing.

Technical support

Whether an entrepreneur buys a new, recycled or donated computer, programs can help them to think ahead about who can help troubleshoot and repair their equipment and at what cost. Of course a good strategy for microenterprise organizations is to develop partnerships with civic-minded private and nonprofit service providers who can offer reliable and affordable support. However, this is easier said than done because reliable technical specialists can be hard to find, especially in rural areas, and it takes time to identify, nurture and sustain relationships with them. Yet, for those who have succeeded, the benefits seem to have far outweighed the program's investment in building the relationship.

In summary, as the business environment increasingly demands that businesses use technology to communicate with others and remain competitive in the marketplace, the automation of core business functions will only expand. In turn, microenterprise programs will need to expand the options for bringing resource-intensive technology inputs in reach of microentrepreneurs. Fortunately, the wealth of resources available through technology organizations and on the Internet is expanding objective, up-to-date information on office and business automation.

On-Line Learning for Microentrepreneurs

Introduction

Approximately 77 percent of microenterprise programs provide classroom-style business training and 88 percent provide one-on-one technical assistance to entrepreneurs.[16] Therefore, it is not surprising that program staff express an avid interest in learning how and at what cost technology can make microenterprise training and TA more effective, efficient and available to greater numbers of people.

The application of distance learning tools within the microenterprise industry represents an area of practice full of potential. Few programs currently offer on-line training. Most organizations are concentrating on improving the computer and business software components of in-person training and technical assistance. Nevertheless, many also envision making these services available on-line as an important, future strategy for reaching new clients, especially those entrepreneurs whose geographic location or business/family responsibilities prevent them from accessing in-person assistance. Lessons from the education field support the notion that on-line learning holds promise for microenterprise programs: " … distance learning can be a viable alternative or complement to traditional classroom learning. … In higher education, IT's greatest impact has been to increase the flexibility of the learning experience, affording more people participation in advanced education through distance learning."[17]

Microentrepreneurs who have participated in an on-line business planning course echo these statements, indicating the value they attach to the flexibility inherent in distance learning options. The comments in Box 18 are from graduates of AcceleratorOnline's entrepreneurial training.

Microentrepreneurs are typically juggling hectic schedules while developing their businesses. Many patch together multiple sources of part-time or full-time income at the same time as trying to start or grow a business, leaving little time during the weekday to attend time consuming business development classes. Moreover, many rural entrepreneurs are cut off from traditional training or TA services because of their location. Kathy Keeley of Count Me In, a nationally-targeted Web site offering business startup services and financing for women, states that she receives inquiries daily from rural residents who lack access to microenterprise services. For these individuals, distance training and TA can be the vital link in creating a viable business.

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[16] Britton A. Walker and Amy Kays Blair, *2002 Directory of U.S. Microenterprise Programs* (Washington, D.C.: The Aspen Institute/FIELD, 2002); available from http://www.fieldus.org/directory/index.html; Internet.
[17] Department of Commerce, "E-Learning: Impacts of IT on Education," in *Digital Economy* 2002, 61-62.

Box 16: Testimonies from Clients of On-line Business Planning Courses

"Although my personal schedule and life situation changed dramatically during the course dates, I was able to access information, continue developing my business ideas, and evaluate their feasibility. ... I found the on-line "Blackboard" tremendously helpful as I wrestled with ideas."
– Robert

"The Internet nature [of the course] made it easier for me to complete this work as I have been gearing-up my business during the day and doing the homework at night. I was also able to keep things going through a business trip and two weeks "lost" when my Mother died, and I had to take care of her estate–all things I was able to do and keep things moving because of the Internet approach."
– Grant

"One of the great things about this [course] is that I could do all of this from my home. I'm a stay-at-home mom who doesn't have the ability to actually go and attend a class everyday, but I've wanted to start a home-based business. I now feel confident that I can begin with some of the essential tools that it takes to have a successful business."
– Deborah

"The on-line set up is great as I was able to work at my own pace whenever I had free time. I learned a lot and now have more confidence than ever that my new enterprise will be successful. I must say, though, that the weekly sessions helped glue it all together. A scheduled weekly class session, with everyone present on-line (via a chat meeting room) would be a welcome addition."
– Frederic

"I was in New Mexico when I started this class. I had never taken a class over the Internet. [The instructor] and I corresponded over half the time via e-mail. He answered the questions and really helped me out."
– Gennifer

"Having the on-line format with [the in-person] homework night satisfies both the flexible need of working at home and also the visual need of classroom interaction. Opening your own business is a very scary and financially dangerous prospect. The class is in such a format that with early research one can tell if it's going to be a viable venture or not. If that's the case you're out of it before you have lost anything. If it is a practical situation the assignments get you motivated, informed and keep you organized."
– Edie

Distance Learning: Interactive by Definition

This module primarily focuses on distance education – interactive training via a facilitated curriculum which individuals can access on their time from any Internet-connected location.

> "Distance learning differs from other computer-assisted learning technologies by accepting the fundamentals of classroom teaching, reproducing them over the Internet, and making them available at anytime from anywhere."[18]

[18] Ralph E. Gomory, "Internet Learning: Is it Real and What Does it Mean for Universities?" (Sheffield lecture, Yale University, January 11, 2000).

While there are countless "one-way" resources targeting small business entrepreneurs on the Internet and on bookshelves, microentrepreneurs generally need much more than generic business information to launch or expand their enterprise.[19] The interaction between fellow trainees and a facilitator allows for clarification, concrete examples, explanations and inspiration tailored to a microentrepreneur's business idea, past experience or local context. The learning and validation that happens through interactive dialogue is partly why many microenterprise clients characterize their business training as transformative. Elements of this process can be transferred on-line without losing its transformative essence. However, creating this kind of interactive and dynamic learning experience on-line involves significantly higher costs than does the static training that microentrepreneurs might access from a CD ROM or Web site documents.

Models of On-line Learning

Some models of distance learning only use communication tools, such as e-mail, Web sites and telephone; others incorporate these with in-person meetings. The five program summaries below provide an overview of the models currently in use by practitioners of microenterprise development:

On-Line business loans, consultation and education

Count Me In for Women's Economic Independence provides business services over the Internet to women across the United States. CMI offers a four-session, on-line class at no charge to individuals who are planning to start a business or who have started one within the last six months. Class sessions are limited to 10 participants and each session is one-hour long. These facilitated sessions are led by Kathryn Keeley, a business owner with over 20 years experience in microenterprise development and entrepreneurship training. The current sessions begin at 9:00 p.m. Eastern Standard Time and are divided into the following topics:

- Before You Begin
- Business Planning
- Finances and Your Business
- Increasing Your Sales

CMI also offers one-time technical assistance to entrepreneurs who e-mail a business-related question. These BizLine responses are sent back to the business person within 48 hours. CMI provides its services entirely over the Internet, either through its Web site or email.

Self-directed, on-line courses

The U.S. Small Business Administration's E-Business Institute[20] offers an extensive array of educational resources for small business entrepreneurs, including self-directed on-line courses. Entrepreneurship: Starting and Managing Your Own Business is a free, 12-module class that uses written materials, audio clips from entrepreneurs, a business plan template, and automated quizzes. It is offered through the SBA's collaboration with My Own Business[21] and while it does not include

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[19] For examples of comprehensive, non-interactive resources for entrepreneurs see: World Wide Learn Web site, *Business Skills Training Courses Online*; available from www.worldwidelearn.com/business-course; Internet.
Business Know-How Web site, *Ideas, Tools and Resources to Grow Your Small Business or Career*; available from http://www.businessknowhow.com/; Internet.

[20] U.S. Small Business Administration Web site, *Small Business Training Network*; available from www.sba.gov/training; Internet.

[21] My Own Business Web site, *My Own Business: A Free Internet Course on Starting a Business*; available from www.myown-business.org; Internet.

access to a facilitator, the on-line content could be adapted for microenterprise programs by incorporating an interactive component led by a facilitator. The module topics for this course are:

- Deciding on a Business
- The Business Plan
- Basic Computer and Communication Tools
- Organization
- Insurance
- Location and Leasing
- Accounting and Cash Flow
- How to Finance Your Business
- E-Commerce
- Buying a Business or Franchise
- Opening and Marketing
- Expanding and Handling Problems

One-on-one technical assistance via e-mail

Southern Oregon Women's Access to Credit (SOWAC) works with individuals living far away over e-mail and telephone. Programs are typically highly selective about the kind of assistance they will provide on-line. For example, SOWAC consultants will work with an entrepreneur on a marketing plan via e-mail but have determined that the process of developing a business plan is too detailed for e-mail interaction.

On-line business planning classes

SOWAC refers clients to Lane Community College, which offers distance learning classes for business plan preparation. These courses, which cost $67 to $94, run for six weeks with an additional two-week grace period at the end. Students access the course material through a Web site and are able to e-mail questions to the instructor and fellow students. Each lesson must be completed within two weeks of its release.

Box 17: SOWAC's Business Planning Course Topics

- A Strategy for Success
- Defining Your Business
- The Role of the Customer
- Structuring Your Organization
- The Marketing Plan
- The Competition
- Marketing in Action
- Operations and Manufacturing
- Understanding the Finance Section, Part I
- Understanding the Finance Section, Part II
- Financing Your Business
- The Final Document

Combination of on-line, hard copy and in-person options for business plan development

AcceleratorOnline is an Internet-based learning program that helps entrepreneurs to create a business plan leading to the launch or growth of a viable business. The AO project is located within the Craig School of Business' University Business Center at California State University, Fresno. Instruction, training and consulting are provided to all the participants, using a menu of options. Students can interact with their instructor during weekly homework sessions; those who are unable to attend them can access a video slide presentation of the instructor on the AO Web site. AcceleratorOnline also arranges for students to have free access to computer labs if needed.

The AO business planning course takes place over nine weeks divided into a one-week introduction, six weeks of course material and two final weeks for students to catch up and finalize their business plans.

With its combination of services, use of computer centers and willingness to partner with organizations around the country, AcceleratorOnline represents a valuable model for microenterprise programs to study. The methods and lessons from AO's two years of experience offering distance education to entrepreneurs inform much of the discussion in this chapter.

Box 18: AcceleratorOnline at a Glance

- Serves entrepreneurs in California's Central Valley
- Housed at a University Business Center at Cal State, Fresno, CA
- Core product is a nine-week, Web-based business planning course
- Fee for the course is $250; local partners may subsidize tuition costs for low-income constituents
- Provided through the Internet: full course content, video slides, calendar, references, facilitated discussion board, on-line learning tutorial, business resource library, monthly E-newsletter, free, one-year subscription to executive development workshops
- Provided off-line: Orientation and homework packet, textbook, in-person weekly sessions, computer lab access, instructor's review of business plan, final business plan review by business school professor
- 14 class sessions conducted as of March 2003
- 395 students enrolled and 200 completed final business plans over 16-month period
- Other products include a virtual incubator, e-commerce workshops, and on-line and off-line agribusiness workshops

The Successful On-line Learner

The relatively isolated and flexible format of a Web-based course requires learners to be self-motivated and willing to initiate communication.

The Count Me In and AO instructors are quick to point out that on-line learning is not for everyone. Both CMI and AO screen potential trainees for their ability to articulate a "fairly solid and potentially viable" business idea. Microentrepreneurs who are still deciding between several business ideas or have not thought through the feasibility of their idea will be referred to traditional microenterprise services before they can enroll in an on-line course.

Prior experience with technology is helpful but not essential. AO instructors will work with their trainees in person or over the phone to help them learn how to navigate the course on the computer. CMI classes are conducted using AOL Instant Messenger; trainees are referred to the AOL help line if they experience problems with the free download or in using the software. More important than prior experience with technology is that the learner enjoy the process of discovery, be bold about asking questions and be motivated to learn the subject matter.

Paying tuition can influence a student's success with on-line learning.

The completion rate for AcceleratorOnline's course improved dramatically after AO began charging for classes. Previously, AO's attrition rate was nearly 50 percent, which is in keeping with the attrition rate for corporate on-line learning programs.[22] Without the financial commitment, students were much more likely to let other priorities and life circumstances intercede, thinking they would complete their business plans another time.[23] This is an important finding when considering prior research affirming the link between training completion and positive business outcomes.[24]

Costs and literacy challenges require on-line providers to make special adaptations to reach non-English speaking entrepreneurs.

> "…producers of on-line content are not yet addressing the interests of cultural or ethnic groups … only two percent of Web sites target Americans who speak English as a second language."[25]

So far, there is little evidence of how language barriers affect an on-line learner's success. In one central California farming community, where most residents speak Spanish almost exclusively, AO made plans to set up a computer center to offer its business planning course. However, the high rate of illiteracy (in both English and Spanish) in the community caused AO to redirect the use of the computer lab. It is now a tool for teaching English as a Second Language.

Box 19: Profile of Client Ready for On-line Learning

- High level of discipline and self motivation
- Communicative; willing to ask questions
- Enjoys learning and research processes
- Possesses an eighth grade literacy level or above
- Has a solid and focused business idea
- Is able to pay tuition
- Has prior experience with technology or willingness to receive technology training
- Has some English language skills

With large concentrations of Spanish and Hmong speakers in the area, AcceleratorOnline remains interested in delivering its course to these communities. The Fresno Hispanic Chamber of Commerce has recently translated hard copies of the course materials into Spanish but has requested that in-person sessions be conducted in English to foster bilingual learning. The Hmong community representatives at the Fresno Center for New Americans did not want the

[22] Alison Rossett, *The American Society of Training and Development E-Learning Handbook* (New York: McGraw-Hill, 2002).

[23] Qualitative data from brief telephone interviews conducted with all AO enrollees by California State University, Fresno student researchers.

[24] Candace Nelson, FIELD Best Practice Guide: Volume 2 *Building Skills for Self-Employment: Basic Training for Microentrepreneurs* (Washington, D.C.: The Aspen Institute/FIELD, August 2002), 49; available from http://www.field-us.org/publications/PrimeVol2.pdf; Internet.

[25] U.S. Department of Commerce, 62.

Box 20: A Motivated On-line Learner

Micki recently started a business designing greeting cards for families of people who are incarcerated. She pays incarcerated artists to create unique illustrations for the cards and she writes the inside messages. She tried working with a SCORE adviser to get her business off the ground but found that she needed more hands-on help. "The AcceleratorOnline instructor was always available, knowledgeable and showed a lot of sensitivity. At first I was overwhelmed by the technical format of the class, but he helped me and I caught on." Micki does not have a computer at home so she used one at an AO computer lab or public library. She attended nearly all of the in-person sessions. Micki now has a business plan to show to potential investors and is ready to launch her business. "I had never taken an on-line course before, but it really helped me to focus. I would surely sign up for another."

curriculum translated into Hmong. (Instead, they want the course to support the organization's goal to encourage the community's business people to use English whenever possible.) They asked for the class to be conducted in person with the on-line component to be used as a supplement. Both the Spanish and Hmong classes were scheduled to begin at this writing.

AO staff does not believe it is cost effective to offer the course entirely in a foreign language. In terms of programming and administrative costs, converting the basic Web site navigation to other languages and supporting a parallel administrative structure was found to be cost-prohibitive considering the price that the target students are willing to pay for the course.

Box 21 summarizes what has been learned about who most benefits (and what types of services are best offered) through on-line and in-person training.

Box 21: On-line vs. In-person Training

On-line learning is best for	In-person learning is best for
■ remote or home bound/business clients ■ clients who need to complete training at odd hours ■ people who have already settled on one business idea ■ straightforward business development training with tangible outcomes ■ delivering modular content ■ learners who feel comfortable using written communication and reading comprehension skills	■ learners who want to escape isolation ■ people who are motivated by interpersonal and group interaction ■ brainstorming and visioning; sorting through multiple business ideas ■ empowerment, case management, life skills training, personal counseling, interpersonal dynamics or sales presentation training ■ learners who present literacy, technology or language barriers
Combining on-line and in-person training delivery can accommodate some features of both approaches.	

Developing an On-line Course

Market research

Research existing on-line resources, the target market demand and what the market is willing to pay before developing the on-line curriculum.

A program should consider how its target market will find out about the on-line learning opportunity and whether it can reach sufficient numbers to justify the costs of developing and administering distance classes.[26] For example, Northeast Entrepreneur Fund (NEEF) in Minnesota is in the process of creating partnerships with two community colleges that will not only assist in adapting NEEF's business planning curriculum to the Web but will provide a continuous market for the class by granting credits to their students who complete the course. NEEF staff is analyzing the appropriate tuition for the course by weighing what current clients pay for the in-person version ($244) and the costs associated with delivering a Web version.

Market research also needs to incorporate an investigation of existing on-line training that may be appropriate for a microenterprise program's target audience. As previously mentioned, SOWAC refers its clients to a community college that is already offering distance education to entrepreneurs. Collaboration with higher education institutions to create on-line learning that is specifically targeted to the microenterprise audience is ideal due to the significant financial benefits it offers.

However, some microenterprise programs whose in-person training curricula are highly customized to a specific target audience may prefer to create an on-line learning program from scratch. AcceleratorOnline created its own distance education program, not because of a specialized target market, but because at the time AO was conceived, (1998–1999) they found no programs with which to partner. Looking back, AO staff emphasize how essential it is to discover what has already been developed, what might be adapted and what lessons can be learned from other providers before adding an on-line learning component to a training program.

Program design

Converting a tried and true in-person curriculum to a distance learning format requires perhaps as much adaptation, testing and refinement as did the original model.

Most microenterprise programs have a curriculum designed for in-person training that staff has perfected through repeated execution and feedback. But, on-line, there is no longer an immediate dialogue between an instructor and students whereby different interpretations of a concept can be clarified. Anything that is implied or conveyed orally or nonverbally in an in-person class will need to be written out in detail. The aspect of group dynamics will need to be brought into the on-line class through the course material and the way students interact with it, through facilitated discussions, and most importantly, through the powerful communication skills of an on-line instructor.

[26] For information on ways to conduct market research see Klein, 10-14.

Effective distance learning requires regular contact between the instructor and students.

While course content can be conveyed by a lecture, a text, a computer, a video or a CD-ROM, the instructor sets the context and conveys the relevance of information. Making the information come alive takes a dynamic interaction between teacher and learner. However, the use of technology for content delivery can free up the instructor for more meaningful interactions with students.[27]

Teacher-student contact is a key component in any teaching and learning process; distance learning is no different. The Academic Senate for California Community Colleges (ASCCC) has studied the practices that a distance education course needs to include to be as effective as an in-person course. This body determined that "distance education shall include *regular effective contact* between instructor and students, through group or individual meetings, orientation and review sessions, supplemental seminar or study sessions, field trips, library workshops, telephone contact, correspondence, voice mail, e-mail, or other activities."[28]

It appears equally important to ensure that microenterprise trainees have multiple points of access to the instructor, including some in-person interaction which microentrepreneurs tend to value over other components of the on-line experience. AcceleratorOnline's graduates who attended the weekly, in-person homework sessions identified those sessions as the primary class and all on-line interaction as supplementary. AO students who only accessed the course on-line had a higher attrition rate, although many of these individuals still placed a high value on their experience and report that they would enroll in another distance learning course.[29] The ASCCC

Box 22: An On-line Curriculum Development Journey

An existing curriculum, using published materials written by the University's business school professors, enabled AO to get started with its first two classes. The AO program purchased these materials on a per-use basis with faculty members receiving royalties. This curriculum consisted of six chapters, each written by a different faculty member specialist on topics such as marketing, accounting and operations. The original plan was for the different professors to teach their particular area of expertise; students would learn the theory during the class and write their business plans afterwards. Students and evaluators from the first two classes indicated that the curriculum was too theoretical. The lead course instructor, a business owner and advisor, revised the curriculum extensively to make it more appropriate for the on-line format. He knew how important it was to break the business plan into sections and to structure the class so that busy, working adults could end the class with a tangible outcome – a completed plan. Now each of six homework assignments comprises one of the six sections of the business plan. [30] (A detailed outline of the AcceleratorOnline curriculum is included in Tools for Technology Services in this manual.)

AO's use of customer satisfaction surveys is an integral part of its curriculum development strategy. These three to five minute phone calls are conducted immediately after a student finishes the course, and then three and six months after. The information AO administrators obtained from the surveys was used to make changes to the course material and the class structure.

The refined AO classes take place over nine weeks: a one-week introduction; six weeks of explaining and assisting students with the six sections of the business plan; and two final weeks for students to catch up and get additional instructor assistance. Once a student has

(continued on next page)

[27] Arthur W. Chickering and Stephen C. Ehrmann, "Implementing the Seven Principles: Technology as Lever," *American Association of Higher Education*, Bulletin 49, (1996).
[28] Academic Senate for California Community Colleges, "Guidelines for Good Practice: Effective Instructor-Student Contact in Distance Learning," *Curriculum Web site*, Spring 1999; available from http://www.curriculum.cc.ca.us/Curriculum/GoodPract/EffectiveInstructor_Student.htm; Internet.
[29] Qualitative data from brief telephone interviews conducted with all AO enrollees by California State University, Fresno student researchers.
[30] Structuring homework assignments in this way is identified as best practice in: Nelson.

Box 22: An On-line Curriculum Development Journey *continued*

turned in his or her completed business plan, AO asks an outside consultat – a business school professor – to review each business plan and provide detailed, written feedback. Students have found this additional fresh perspective to be very helpful, particularly if they are planning to approach a loan officer for financing.

Although its original course content was delivered entirely on-line, AcceleratorOnline learned that few people can transition to a 100 percent virtual format. As a result, AO staff developed hard copy training packets with general course information, all homework assignments, the course calendar, frequently asked questions, tips for completing each assignment, and instructions for logging in and e-mailing homework. (All homework assignments are e-mailed or mailed, rather than posted on the on-line class discussion board in order to maintain the confidentiality of the business information.) In addition, the on-line course material is supplemented by a text: *Start Your Own Business: The Only Start Up Book you'll Ever Need.*[31]

provides the following ideas for ensuring effective student-instructor dialogue, even when the two parties cannot meet:

- **Web-based.** Frequently asked questions (FAQs) that are kept current.
- **Interactive.** Question-and-answer (Q&A) areas or chat rooms.
- **Phone based.** Phone-in office hours or voice mail.
- **Video based.** Video conferencing with "smart" cameras which can focus on students asking questions.
- **Internet based.** E-mail distribution lists, chat rooms or bulletin boards where threaded conversations or guided discussions can be held.
- **FAX and e-mail based.** Exchange of ideas and comments or communication of documents over distance.

Selecting a trainer

The discussion above suggests that finding a great on-line instructor is a fundamental factor in providing quality on-line training. According to interviews with AO graduates, the qualities that are most important for the trainer to possess are:

Knowledge of the subject matter and real world experience. The ideal instructor will have owned a business, run a business development program or advised small and microbusinesses. Actual business experience enables the instructor to answer questions quickly in an on-line chat or discussion. It also facilitates the instructor's frequent use of concrete examples, which on-line graduates describe as key to their comprehension of the course material. The Count Me In instructor's ability to answer the questions, immediately drawing on her deep and varied business development experience, is critical to the success of the CMI classes, which are conducted in real time using instant messaging technology.

Ability to communicate in a way most people can understand. Again, explanations need to be very concrete and spoken in clear, simple language pegged to an eighth-grade comprehension level or lower. On-line communication is more susceptible to misinterpretation and, therefore, explanations must be as simple, specific and accessible as possible.

[31] Rieva Lesonsky, "Start Your Own Business: The Only Start Up Book you'll Ever Need," 2nd ed. *Entrepreneur's Magazine Press* (2001).

Compassion and concern for the students. On-line instructors need to be both flexible about scheduling and committed to helping students complete the course. Busy students balancing work and family obligations are more likely to remain in the course when the instructor is perceived as flexible and fun. In other words, a great instructor will display a sense of humor and a sense of humanity, building camaraderie among the students.

Responsiveness and customer service orientation. One AO student described the qualities of her instructor: "He was very responsive and made himself available – like our own personal coach. He was patient with all students and our different levels of computer skills." Instructors need to demonstrate a willingness to work with each student individually and encourage students to communicate by responding to questions or requests for feedback within an agreed upon timeframe (such as 48 hours). By modeling this level of accountability to students, the instructor motivates learners to remain focused on the essential goals of homework completion and course completion. This takes time – AO's instructors estimate that they spend a minimum of one to two hours per week, per student (e.g., 22 to 28 hours per week for a 12-person class).

Box 23: Flexibility and Enthusiasm Encourage Overworked Business Owners

Jim and Vicki have owned and operated a full service glass shop since 1994. They never had a business plan until taking the AcceleratorOnline class and said they wished they "knew then what we know now ... We found out that we were under pricing, and so have stepped up our marketing efforts. The business plan gives us a roadmap for expanding the business and it has helped to clarify decisions of the past." Jim and Vicki took the class at the busiest time of the year for their industry but still managed to spend three to five hours per week on the class. They were only able to attend a couple of the in-person sessions but found the on-line instruction and textbook to be enough. "It was really tough but our instructor was so encouraging. He was very flexible and urged us to keep going."

Follow-up services

Trainees need technical assistance after completing an on-line course; such services should be characterized by the same flexibility and distance options as afforded by the on-line learning format.

Count Me In graduates can apply for an Internet-based, industry-specific mentor through CMI's partnership with MicroMentor, an on-line mentoring program designed to connect microentrepreneurs with mentors experienced in their own industries (www.micromentor.org). AcceleratorOnline graduates currently have two options. First, they can obtain counseling in person or over the telephone through the Central Valley Business Incubator. Second, they can apply to become members of AO's Virtual Incubator. Members of the virtual incubator have access to on-line consulting with experts, chat rooms, threaded discussions, e-commerce servers, domain name registration and web hosting, and MBA student interns, and assistance with web design and development.

Marketing On-line Courses

Programs need a critical mass of students to fill individual classes and ensure a regular schedule of courses to retain a steady customer base.

Many on-line learning programs can falter without sufficient attention and resources devoted to communicating with the target market about the features and benefits of the course. Count Me In relies on its extensive media and corporate contacts, as well as the networks of its borrowers and class participants to market its services. Consistently running a waiting list for its classes, CMI has found that press releases to women's media outlets, particularly women's magazines, are effective in attracting people to its site.

As previously mentioned, the Northeast Entrepreneur Fund's potential partnership with two community colleges offers marketing advantages in that they provide an existing infrastructure for marketing the course, as well as access to a new and continuously replenished target market.

Originally, AccerlatorOnline did not have a marketing budget for its project because of unforeseen changes in grant partners. Without dedicated marketing funds, AO recruited colleague organizations whose mission included economic development and entrepreneurial assistance. Fortunately, AO was viewed as an attractive collaborating partner given its placement within the University, a trusted source of quality education and sought-after partner in the region. AO relied on its community-based associates to conduct individual recruitment and outreach campaigns – primarily through word of mouth and one-on-one conversations with business owners. AO provided its partners with basic marketing materials, and publicized the program on its own, through the newspaper and a letter campaign.

Toward the end of its two-year pilot period, AO and its partners agreed that a coordinated, centralized marketing campaign was necessary to reach beyond the community partners' current networks. Using $38,000 allocated toward marketing, AO designed a three-pronged marketing strategy: radio advertisements, logo-based web links for partners, and attendance at conferences around the region. (AO found that purchasing newspaper ads was ineffective.) AO recently spent $10,000 on its radio campaign, buying one minute spots that ran three to five times per day on five radio stations. Early indications are that the radio ads have been very successful in drawing in new inquiries.

The Technical Challenge: Acquiring a Distance Learning Platform

Blackboard and Web CT are two of the most popular on-line platform tools used by universities. With student tuition, universities and community colleges can usually afford the upfront investment a distance education platform requires. A microenterprise program should investigate the possibility of piggy-backing on the distance education tools of higher education institutions or consider collaborating with other enterprise development organizations in the state to purchase on-line learning's technical tools. AcceleratorOnline investigated obtaining its own license for Blackboard, but was deterred by the $30,000 price tag. Instead, AO pays the university $250 per class for access to the university's license, plus a user fee of $10 per student. The Tools section of this manual includes a proposal that Blackboard drafted for AO staff when they considered purchasing a separate Blackboard license. It also contains a partial description of the features of Blackboard and Web CT.[32]

CMI uses America Online's (AOL) Instant Messenger, which is available to Count Me In trainees for free through an agreement with AOL. This has been a successful tool for CMI's workshop style classes and a relatively easy one for participants to use.

CD-ROMs are an appropriate, supplementary tool for areas with low Internet access. CDs are used generally for more permanent content than that placed on the Web. However, the ability to purchase lower production runs of CDs, i.e. 500 instead of 5000, makes the use of CDs more flexible. CDs also allow for more multimedia presentation than an Internet-based tool; not all students will have CD drives on the computers they use.

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[32]Information on approximately 40 other distance education products is available at: Edu Tools Web site, *Product Information*; available from http://www.edutools.org/course/productinfo; Internet.

Box 24: Distance Learning Works for Distant Business Partners

Amy took the AcceleratorOnline class from January to April 2003. Amy's business partner lives in New York but also enrolled in the course. Their part-time, one-year-old business is a designer apron company. "Since we both work, we were happy to find a convenient business planning class that mixes in-person time with the on-line flexibility. "If it was entirely in person, it would be too much trying to schedule everything in. Plus, AcceleratorOnline's format allowed me to go to the weekly homework sessions but let Flannery use the discussion board from New York." Amy also took AcceleratorOnline's four-week e-commerce workshop. "I learned how to get our Web site closer to the top of search engines." Amy and Flannery plan on taking their completed business plan to a bank or community loan fund to apply for financing. "Going through AcceleratorOnline's step-by-step process helped me to feel less overwhelmed. I used to feel that I had to know everything, but now I see that there are many resources we can rely on. And, getting constructive criticism from an experienced instructor gave us confidence in our business idea. We have a stronger commitment to the business and are now looking at how we can make it a full-time endeavor."

Costs of On-line Learning

The costs of offering on-line learning are substantial upfront. Furthermore, the ongoing costs make this an expensive proposition for microenterprise programs going it alone. Even with its in-kind contribution from America Online, Count Me In budgets $140,000 per year for its on-line classes. This amount is in addition to $250,000 of initial investment in the CMI Web site and $80,000 per year to maintain and make changes to the site.

AcceleratorOnline's costs, detailed in Box 25, are lower than they would be if the project were not within a university setting. In addition, the director underscores that, for a project of this size, the University Business Center should have budgeted for more staff and more time. However, AO's access to university resources for free or at discounted rates was key to the successful completion of the pilot implementation. For example, the university's technology staff did all of the network installation and maintenance at the community computer centers for the state employee rate of $22 per hour. In addition, AO benefited from the University Technology Center's expertise and technical advising services in researching and selecting connectivity options for the centers. As mentioned above, AO benefited from the university's access to Blackboard at the educational rate. In the same vein, the university has a sweeping Microsoft Office license which enables AO to provide software free to its own staff and to the community computer labs.

Cost-sharing is also a key feature of AO's strategy. Its community partners, who range from traditional economic development organizations to neighborhood revitalization programs, did not receive cash for their participation since the project helped them to fulfill a mission. However, each could get computers paid for from the project grant funds if there was no other lab in the community. Partners are responsible for paying all of the instructor costs – approximately $4,000 per session – as well as all materials costs. Please see the Tools section for a sample Memorandum of Understanding that outlines the division of responsibilities between AO and its community partners.

Box 25: AcceleratorOnline—Project Development Costs

Includes Start-up and One-year Implementation Costs

Research Costs Consultant and staff time to research and analyze similar products. Staff time to announce project to potential partners; to investigate and form community partnerships.	**$61,640**
Production Costs Web site development ($37,000), Equipment ($6,200), Curriculum development/adaptation ($30,000), Producing video slides ($7500), Course translation ($10,000), E-newsletter ($8,000), E-commerce class ($10,000), CD-ROM ($30,000), Staff time ($25,000).	**$163,700**
Computer Labs (5 sites) Average cost to equip lab ($20,000) plus maintenance and Internet connectivity costs.	**$138,736**
Annual Program Costs Staff time ($71,250), Marketing ($38,000), Evaluation and customer surveys ($20,000), Supplies ($8700), Virtual incubator ($11,500).	**$149,450**
Annual Course Costs (6 classes) **Cost was $6,750 per class (average 15 students).	**$40,500**
Total Project Development Costs	**$554,026**

Planning for Sustainability

Just as with in-person training, programs offering on-line learning will weigh the actual costs of delivering training vs. the tuition rates the target market will bear. Of course, it takes time to figure out what the expenses for developing and delivering the course will be, as well as what the final training product will look like. One of the greatest struggles faced by AO has been the need to plan for sustainability simultaneously with developing, launching and testing all of its products and services. During its research and development stage, AO did not charge for its classes. As soon as the curriculum was perfected, however, AO began charging $175 and has now set its final course fee at $250.

On-line learning is more expensive than in-person training. "Tuition at a virtual university can be up to 20 percent higher than it is for a physical one, due to the cost of building and maintaining computer networks and developing Web-based curricula."[33] AcceleratorOnline has determined that its costs for delivering one session of its nine-week business planning course exceed $10,000, based on 20 enrolled students. Covering its administration costs solely with tuition would require charging over $500 per student. However, the program staff determined that $250 is the appropriate price point based on market conditions of Fresno and surrounding areas.

With this final price, AO cannot become self-sufficient unless it targets a higher-income demographic than it has served to date. It is now up to AO's community-based partners to arrange for subsidy that allows low-income microentrepreneurs to participate in the course at the current price of $250. For example, several partners have decided to finance a portion of the students' tuition to make the course more affordable for their constituents. The Fresno West Coalition for Economic Development, which serves Fresno's Empowerment Zone, offers AO students a sliding scale fee starting at $50. The West Fresno program makes up the difference for students paying less than $250. The Hanford Economic Development Corporation asks students to pay the full $250 upfront but then provides students a $100 rebate after successful course completion.

Strategies for sustainability of on-line learning

- Count Me In is supported, in part, by corporate sponsorships that provide distinct advantages for the corporations. For example, America Online has the opportunity to introduce part of its service (Instant Messenger) to new users. American Express has received frequent, positive media coverage from its association with Count Me In. CMI's sustainability plan is also aided by the interest CMI charges (13 percent) on microloans of $500 to $10,000.
- Cap Services in Wisconsin has local private sector sponsors for each, distinct area of content on its Web site's virtual incubator. For example, a local accounting firm takes responsibility for developing and updating the financial management and tax sections of the incubator. Cap Services staff use this information to strengthen the content of the business training sessions that it offers around the state, each of which bring in money to pay for the incubator's technical maintenance.
- Now that AcceleratorOnline has completed its beta test and local implementation phase, expansion will be the focus of its sustainability strategy. AO staff is accepting inquiries from educational institutions, local governments, business development agencies and nonprofit organizations that are interested in developing an AcceleratorOnline program targeted to specific end users. AO plans to provide two licensing arrangements to organizations from around the country, with the precise costs of the negotiated arrangements to be determined in discussion with each partner. Two of the potential licensing options, which carry annual costs ranging from $10,000 to $25,000 – not including on-site training and per course costs – are as follows:

  Option 1
  Entirely Distance Learning (No in-person instruction; administration provided by AO.)

  - Annual licensing fee purchased from AO (includes all Blackboard licenses and fees).
  - Instructions and administration for each course–provided by staff of the University Business Center.

[33] "Off-Campus," *Wall Street Journal*, 12 March 2001.

- Materials fee per course paid by local organization.
- Course hosting fee per course paid by local organization.

Option 2
Combination of On-line and In-person Learning (Local instructor trained by AO but hired by local organization.)

- Annual Licensing fee purchased from AO (includes all Blackboard licenses and fees).
- Training of the local instructors and staff (three days, on-site training).
- Materials fee per course paid by local organization.
- Course hosting fee per course paid by local organization.

On-line business training may not replace in-person training for microentrepreneurs anytime in the near future. But it does offer distinct advantages in reaching isolated entrepreneurs, enabling busy people to learn on their own schedule, and facilitating business partners in different locations to participate in the same course. Yet effective on-line training requires careful attention to program design and curriculum adaptation. Microenterprise programs cannot simply put their current curriculum on a Web site. They face new challenges in matching their clients with the appropriate combination of traditional (e.g., in person) and electronic educational technologies.

Doing Business on the Web

Conducting business on the Web involves much more than creating a Web site. It includes market research, communicating with customers, purchasing supplies, developing the site and selling on the Internet. With such an abundance of new resources and markets, entrepreneurs' understanding and use of the World Wide Web will strongly influence their business success in the future. Yet, today few microentrepreneurs have the training and expertise to optimize the Web in reaching larger markets and expanding their businesses. As the Web evolves and an entrepreneur's information technology needs grow, microenterprise development programs have a critical role to play in assisting clients to navigate the Internet-enhanced business environment.

To understand that role, FIELD staff surveyed 40 microenterprise organizations;[34] interviewed program staff and clients; carried out on-line research; and conducted a site visit to NotchNet, a private Web marketing firm. Located in Littleton, N.H., NotchNet serves as the primary resource for this chapter because it has first-hand experience with both nonprofit microenterprise organizations and microentrepreneurs. FIELD staff also visited TechLink NH, a technology task force researching the "digital divide" in northern New Hampshire.

Box 26: Who are NotchNet's clients?

Located two-and-one-half hours from any major city (Boston, Mass.; Montreal, Quebec; Burlington, Vt.; Portland, Maine), Littleton, N.H., has a population of 5,845 people (2000 census), with a median household income of $35,887.* The majority of NotchNet's clients are microentrepreneurs, small businesses and nonprofits from New Hampshire, Maine, Vermont, Florida and Colorado. A typical client is the small business owner with 1 to 5 employees. Overall,

- 65 percent are microentrepreneurs.
- 20 percent are in hospitality – motels, hotels and inns (no restaurants**).
- 15 percent are other (mostly nonprofits or small businesses).

Clients' level of technology:

- 70 percent are just starting to automate their businesses (using computer, fax, computerizing rolodex. Many are just learning to use e-mail and send attachments.
- 25 percent are at the next level – they understand PhotoShop, QuickBooks, scanning.
- 5 percent are at top level (these are usually larger businesses with administrative staff).

* From New Hampshire Employment Security Web site: http://www.nhes.state.nh.us

** Restaurants are slowest to get on the Web. NotchNet has created a site – golittleton.com – on which restaurants pay to have a page featuring their business.

[34] FIELD sent out a survey to 500 microenterprise organizations in the United States and interviewed 40 respondents.

Microenterprise Programs and Web Marketing

This chapter focuses on strategies and tools for on-line marketing. Given the vast and ever changing nature of the Internet, microenterprise programs face important decisions about how they will help clients explore these new opportunities. As with the overall technology plan discussed in Chapter Two, one of the first decisions is whether to outsource training and technical assistance to Web marketing specialists or build in-house expertise. Box 27 provides examples of both.

Programs should strive to prioritize Web-related services that make clients less dependent on them over time.

Over the long term, clients cannot depend on program staff for on-line marketing services. In most cases, programs can best serve their clients by identifying and screening external technical resources for a roster of referrals. Clients can then access these resources on their own time. That said, bringing on-line marketing (and other expertise in technology) in-house may be a good choice for programs that are faced with one or more of the following:

- Geographic constraints – the program is in a geographic area where clients will be unable to access these services from other providers.
- Quality control concerns – the community does not have a trusted technology resource that can assist clients.
- Revenue generation opportunities – programs may develop an expertise in Web marketing as a way to generate program income.

Box 27: In-house or Outsourcing?

In 2002, Cobb Microenterprise Center in Georgia began offering an Internet marketing class from which 32 clients have graduated. The class covers a variety of subjects designed to help clients get a return on their investment of time and money in developing a Web site. The Cobb class teaches: Internet marketing and e-commerce strategies; domain names; Web-site layout, design and planning; writing content for the Web; clip art and photos; getting customers to your Web site; search engine optimization; accepting payments and conducting transactions on-line using PayPal; and legal considerations.

An SBDC office refers clients to a list of consultants who provide technology services. The consultants' hourly rate is indicated on the resource list clients can choose the level of service they can afford. Before clients hire a specialist, they can take SBDC seminars on general technology issues and get information regarding questions to ask prospective consultants.

Understanding Web Marketing

In the simplest terms, Web marketing or e-marketing is the process of leveraging the Internet to promote, brand or sell a product, service or idea. These goals are achieved using various on-line tools and strategies such as e-mail, newsletters, Web sites, search engine submission, and banner ads, etc., all of which either increase brand awareness for Internet users or drive them to a business Web site. The following list includes a few key approaches to Web marketing:

- E-mail
- Electronic newsletters
- Search engine submission

- Banner ads
- Selling via an on-line auction (such as E-Bay)
- Building an independent Web site (either yourself or with a Web marketing expert)
- Building a Web site with a Web-based e-business application service provider (ASP), an all-in-one service that offers hosting, design, e-commerce, Web site management and marketing services.

Clients need to understand the various ways that Web marketing may impact the business, specifically customer demand, the owner's investment and financial return. Many clients seek a Web site or on-line services because they have a general sense that this is something they need to do for their business. However, they may not fully understand the time and money required to create a Web presence. These and other potential risks and benefits of Web marketing should be discussed upfront with clients. NotchNet will offer such an initial consultation for free to educate a potential client about Web marketing and to understand what the client hopes to achieve from his/her Web site.

Client Assessment: How Can Programs Assist Clients to Assess Their Needs

To assess clients' preparedness and potential for marketing effectively on the Internet, programs can help them to place their ideas for the Web within an overall marketing strategy; assess computer skills and comfort level with technology, and finally, compute the time vs. money calculation.

On-line marketing should be one part of an overall marketing strategy for the business.

Many clients tend to over-inflate the need for on-line marketing while underestimating the necessity of off-line marketing to complement their Web presence. In planning for Web marketing, a client must possess an overall marketing strategy. If the client has not prepared a marketing plan, he or she will waste time and perhaps money on marketing that does not synchronize with the business's general marketing scenario. The on-line marketing plan should not be executed in isolation.

Box 28: Create the Marketing Strategy before the Web Site

Cheryl designs unique baby bibs and wanted to sell her products on the Web. She had one small logo for her company that she used on her hang-tags but no market identity. When planning her Web site, she had no opinions about color or design layout. Therefore, the Web designer created ideas from scratch, deciding on the fonts, colors, tone and voice to represent Cheryl's company image. Cheryl paid $1,200 for the Web site but received few on-line sales. As the company grew, Cheryl met with a microentrepreneur program consultant and created a marketing plan. She created a new image for her company with a logo and printed materials. Because her Web site did not match her new image, she had to spend another $700 to redesign the site. If she had spent the time to create a marketing plan first, and integrated the Web site into the plan from the beginning, she would have saved considerable time, money and stress.

Assess technology savvy

The program should conduct a basic assessment of the client's computer skills. NotchNet divided skills assessment into the following categories and uses an on-line self-assessment tool:[35]

- Basic computer skills (turning on the computer, using a mouse, typing)
- Using an operating system, e.g., Windows (files and folders, naming files, using the task bar)
- Word processing (bolding, underlining, copying and pasting)
- Financial management (entering labels and numbers into a spreadsheet, inserting/deleting rows, creating formulas)
- Database use (how and why to use a database, understanding forms, running reports)
- Desktop publishing program (creating promotional materials, inserting graphics, running a slide show)
- E-mail (creating and sending messages, To, Copy(Cc) and Blind copy (Bcc) fields, sending attachments)
- Internet (accessing the Internet, typing in an address, searching, downloading files, using search engines)

Although clients need not be fluent in all of these areas of technological literacy, they should have a basic understanding of each of the different topics.

Assess time versus money

Microentrepreneurs often opt for self-employment because they like the freedom to make their own choices and do things for themselves. But sometimes the best choice is to get help. Web marketing takes time, money and equipment. For example, the quality of photos is very important on the Web – the key to enticing someone to click and buy a product. Most people think taking pictures is simply a matter of using a digital camera to photograph products and upload them to a Web site. It sounds simple, but it can take hours to figure out how to install the software that comes with the digital camera. Entrepreneurs should carefully compare the costs of doing something themselves versus paying someone else to do it. Microenterprise programs can help clients carry out this cost comparison.

Box 29: Time is Money

John, a painter, is a classic do-it-all-yourself entrepreneur. Seeking to promote and sell his paintings on the Web, John bought a digital camera for $400 and learned to install the software and download pictures (8 to 10 hrs). He learned how to upload his pictures to a Yahoo! Photo Gallery (5 to 10 hrs). Once he saw the pictures on the Web, he wanted to compress them so they wouldn't take too long to download, crop them, and enhance the color. To do this, he had to buy image editing software for $90 and install and learn the program (8 hours). Having mastered the basics, John realized he couldn't capture the essence of the painting without the right lighting … and on it went. A local photographer who already has a lighted studio, software and the skill to take professional photographs could have completed the work in a few days and given John a disk with high quality photos for his Web site, all for about $300. By doing it himself, John spent $500 plus 25 hours of time he could have spent doing what he loves – painting.

[35] Developed by local consultants with TechLink NH, this on-line tool is available for practitioner use at: TechLink Web site, *Self Assessment Tests*; available from http://www.techlinknh.org/evaluate/; Internet. (A copy of the text is contained in the Tools section.)

Web Marketing Strategies

Clients should begin at the lowest or simplest level of the "Web Marketing Ladder" when planning their entry into Web-based marketing and move up as experience and capacity allow.

Developing a Web site is not the only way to market on the Web. There are other simple and affordable options to promote businesses there. The opportunities shown in the Web Marketing Options Ladder include:

- Posting business information on a Web directory
- Showcasing product/art on a Web gallery or mall
- Creating a simple brochure-type Web site with one to two pages describing the business
- Developing an e-commerce Web site with on-line ordering options

Web Marketing Options Ladder

	Web Marketing Activity	Cost/Time Requirements	Technical Skills Needed
Higher cost/higher skill level	Develop e-commerce Web site with secure ordering feature	$2,000-$8,000 setup costs; time to plan inventory control, distribution and shipping procedures	E-mail/Web surfing; image editing; some HTML/FTP experience; Excel/database experience
	Create a small Web site either with own domain name or as a subpage of a larger Web site	Setup costs for domain hosting: $100-$300/year; creation of site could be done for free with training; or hire developer for $300-$700	E-mail/Web surfing experience; image editing experience; Some HTML /FTP knowledge
Low cost/basic skill level	Promote products for sale on an existing Web mall or auction site such as eBay	Costs vary, usually charge transaction/commission fees	E-mail/Web surfing; Image editing; FTP experience may be needed to upload files
	List business information on Web directory	Free-$300/annually for listing fee. Minimal time needed to submit information	No Web skills needed, may be helpful if client has used Web or e-mail

The examples below illustrate web marketing activities that correspond to distinct rungs on the web marketing ladder.

Newsletter Web marketing. Service providers may be required to use the Web more actively because what they have to sell is hard to put into photographs. A woman who owns her own coaching/consulting business out of her home uses e-newsletters to build her client base. Every e-mail she sends has a signature line with a link to subscribe to her monthly e-newsletter. She creates a monthly e-newsletter with quotes and tips, and she promotes her upcoming classes to her subscribers. This form of Web marketing is very inexpensive, grows the client base quickly and can be done using free services such as topica.com.

On-line auction power seller. When inventory quickly comes and goes, as is the case for antique dealers, it's hard to keep a Web site updated with new inventory. Many antique dealers use on-line auction sites such as eBay.com that allows entrepreneurs to sell on the Web to credit card users, without investing in a Web site. A woman who buys and sells costume jewelry used eBay to grow a profitable Web business, without her own Web site. She just built a positive rating on eBay and developed a loyal customer base ready to buy what she finds at her next estate sale. The process of learning how to post items on the site and set up accounts can take many hours, but it is a great way to start learning about on-line sales without a large financial investment.

Application Service Provider User. A small deer farmer in northern Vermont wanted to sell venison on the Web. She purchased an all-in-one Web site package that included hosting and templates to build a Web site.[36] She chose a basic design template and proceeded to learn how to update her page. No design or coding skills were needed. She did need about one hour of assistance to learn to compress and upload pictures. After about 20 hours of experimenting, she created an informational Web site that allows visitors to e-mail for more information. The domain is now propagating through search engines. If she continues to add more information to her site, it will start to appear in the search listings for venison. This site is a stepping-stone. When she reaches her on-line sales goals from this starter page, she plans to invest in a customized Web site with e-commerce features.

Box 30: WESST Experience is Illustrative

Careful tracking of costs, revenue and inquiries provide valuable information about each of the different marketing strategies that WESST has employed in marketing wesstartisans.com. The program had been spending $1,500 per advertisement in New Mexico magazine. Although magazine readers expressed interest in the artisans' products, WESST found that these inquiries did not translate into sales. Because customers who actually purchase products from the Web site tend to come to the site through self-initiated searches, WESST decided to reduce print advertising in favor of promoting the site with search engines. Through nearby Sandia Laboratories, the program found a consultant who specializes in Web marketing. (The consultant's business is called Xtramark.com). The consultant charges approximately $65 per hour to promote the WESST site with top search engines each day. In order to save WESST money, the consultant has trained program staff to complete as much of this work as possible. While sales have remained the same, costs are down, and the program is expecting to continue this relatively inexpensive promotion strategy.

[36] Yahoo! Geocities Web site, *The Way to Build a Better Web Site*; available from http://geocities.yahoo.com/; Internet.
Bigstep Web site, *Build a Web Site*; available from http://go.bigstep.com/; Internet.
Homestead Web site, *Your Complete Website Building and Hosting Solution*; available from http://www.homestead.com/; Internet.

Program-based Web Malls. For clients who are not able to invest in their own Web sites or who cannot afford to execute a Web marketing plan, some microenterprise programs have developed on-line directories and/or e-commerce sites featuring program clients' businesses. The Web Directory can create an avenue for clients to network with each other, for funders and other program supporters to understand the range and strengths of businesses assisted by the program, and for the program to create some name recognition and image for its entrepreneurs.

However, Web malls, which include a shopping cart mechanism that allows products to be sold through a program-administered Web site, have had less success than implementers anticipated. As a general rule, these e-commerce sites have not resulted in adequate financial gains for programs or microentrepreneurs. In New Hampshire, WREN developed www.shopthewrens.com, an on-line store featuring rural artisans' handmade products. Similarly, Women's Economic Self-Sufficiency Team (WESST) in New Mexico constructed an e-commerce site for its program clients at www.wesstartisans.com. The early data for both of these sites show fewer sales than originally hoped. WESST's sales for 2002 were approximately $8,000, and the first half of 2003 indicates similar sales trends. The same has been true for Count Me In's "Marketplace," which is an on-line directory of featured borrowers, even though it benefits from Count Me In's extensive and successful microloan marketing campaigns.

Web Marketing Costs

Calculate the Total Cost of Ownership with regard to Web marketing, including all potential costs over time – from the initial connectivity to ongoing promotions and search engine strategies.

Programs can help clients understand the costs of various services. For example, a basic brochure Web site (a simple Web site with information about a business that is similar to a printed brochure) will cost significantly less than a site with multiple pages and a shopping cart. At NotchNet, in 2003, the cost of a basic brochure site is approximately $700, whereas a site with multiple pages and a shopping cart is $3,000. The sample Web contracts included in the tools section of this manual provide some examples of price categories. However, programs will need to do individual research about the cost of services in their geographic area, as the actual prices will vary dramatically (and will change rapidly over time).

A written contract and plan for Web site development should include an estimate of cost and time for development, hosting, promotion, links and updates – all of which need to be negotiated at the beginning. The sample contract in the tools section can help clients understand what to expect and what questions to ask when planning their Web site. The contract should clearly specify tasks and responsibilities. One entrepreneur was waiting a month for the Web designer to create a draft of a new site using the content from her old Web site. A month later she found out that the Web designer was waiting for her to prepare the content in order for the designer to begin the design process. Lack of planning for editing and revisions can frustrate both the client and the developer. Usually a few revisions are budgeted in the design phase, but when the client is not clear about their marketing image revisions can be costly.

Developing the Web Site

On-line marketing/sales efforts should support the entrepreneur's overall marketing plan.

Box 31: Web Site Development Process

- Create a Web marketing plan
- Select option for setting up site
- Choose sales strategy
- Choose a hosting strategy
- Maintain and update the site
- Promote the site

When planning their Web sites, clients need to consider many of the same questions they considered when writing their overall marketing plan. They need to know their target market and how those customers are going to use the Web site. Answering these questions first will inform the next layer of questions about the design, look and functions of the site itself.

Some clients want to start building a Web site without knowing exactly what they want to sell. A fabric-based business wanted to sell 15 different products with 30 different fabric choices. The requirements of coding these approximately 400 different products into an on-line shopping cart program contrasts starkly with the flexibility in product lines that an entrepreneur can maintain when selling out of the home or car. Such a transition clearly requires advance planning.

Web site creation

Entrepreneurs have choices about how to set up their Web sites and how to sell on the Internet. All-in-one services include Web site development, e-commerce, marketing and Web site management. The list below outlines other options for developing a Web site:

- **Hire a firm that develops and hosts Web sites**. This option will provide a comprehensive Web site development plan that includes hosting, development, e-commerce, Web marketing, etc.
- **Purchase a software application.** Numerous WYSIWYG (what you see is what you get) Web page editors on the market typically have pre-built templates and themes that can be used to create a Web site. The WYSIWYG function allows a person to develop a Web site without any computer programming experience. Other Web design software programs that allow more flexibility require some HTML knowledge. Popular programs such as Macromedia Dreamweaver ($399) or Adobe GoLive ($300) are easier to learn with some Web coding experience.
- **Learn HTML programming and code a Web site.** By learning HTML, a person gains control over the site design. HTML is not a difficult programming language, but its learning curve will take time that the entrepreneur may not have. HTML editing software is very affordable ($30 to $300) and provides features for easier coding. In addition to developing the Web site, the entrepreneur will still need to obtain hosting and e-commerce services for it.
- **Build a Web site using a Web-based, e-commerce program.** These programs are all-in-one services that allow the entrepreneur to create a Web site without buying software or learning new programming. There are several providers that offer this service specifically for small businesses (Yahoo! Store, bCentral, etc.) However, entrepreneurs should know that because the site is created through the Web on the service's remote servers, it may not be transferable. That is, the entrepreneur may not be able to take the site with him if he changes services.

Selling products or services on the Internet

Product and service businesses use different strategies and interventions to achieve sales on the Internet.

Product-based businesses. Because product-based businesses use technology to monitor product information, they must be more established on the backend (e.g., automating inventory, accounting systems, postage calculations for shipping, etc.) They need an automated inventory in Excel or another program, an electronic accounting system such as QuickBooks to help manage sales and cash flow, and a system for tracking who they ship to and the costs of shipping. NotchNet has clients create a grid for shipping costs and works with them to price out the exact cost to ship their products. Shipping costs can vary depending on zip code and types of shipping options available. FedEx and UPS provide software and shipping information for new Web stores to integrate with their Web sites. Figuring out shipping before opening a Web store can save time and money.

Box 32: Shipping Woes, Two Stories

Bob, a home-based distributor, created an e-commerce store that automatically added the shipping based on the amount of the sale. This worked for a while, until he realized he was losing money on large orders. He soon realized his shipping costs should be calculated based on weight of the order. This involved a more complicated shopping cart program than he initially purchased. He had to pay to upgrade to a new program and reconfigure his product listing.

June, an artist who designs unique, decorated gift boxes, planned to sell them on the Web. After planning the design and content of the Web site, she set up her own e-store using a Web-based e-commerce template. Without thinking through how she was going to package these boxes to ship, she configured shipping costs to be automatically calculated on individual orders at $8 per box, based on postage of $5.50. After a few on-line orders, June realized that she spent a lot of time packaging each box, purchasing the shipping materials, taking the packages to the shipping center and processing the order on her Excel spreadsheet. She calculated that each box cost her $20 just to ship. June quickly reviewed her on-line prices to compensate for this cost and adjusted her shipping charges to cover expenses.

Selling products on the Web requires either an e-mail order form or automated shopping cart for customers to purchase products from a Web site, a merchant account to accept credit card purchases, security system to protect credit card orders, and backend procedures for distribution and shipping. To fully expand into e-business, a client will eventually have to consider investing in a shopping cart. Services that offer outsourced credit card processing, such as PayPal, are a good start to selling on the Internet, but they only process orders and do not help to create an order form. NotchNet charges $250 for a basic order form, whereas it costs about $2,000 for NotchNet to set up a full-service shopping cart. After this, the cost is about $500 a year to update and change the Web site. Another option is using an on-line store that is already set up to process credit cards and offers all-in-one packages for displaying and selling products on the Internet.

Service-based businesses. In contrast, owners of service businesses are essentially selling themselves; consequently their Web site has to give customers confidence that the entrepreneur is both able to satisfy their needs and has provided excellent and reliable service to others. Web sites of service-based businesses should include the following:

- the business mission and description,
- services offered illustrated by examples of services provided in the past,
- a brief and professional biographical sketch,
- testimonials or references from satisfied clients, and
- clear ways to contact the entrepreneur.

Service-based businesses usually serve local markets (e.g., a gardener in New Hampshire is not likely to get many clients in California). Therefore, they need to actively pursue local markets to bring these people to their site. And, they need to keep their site updated with current dates for upcoming events such as seminars or conferences. Content management tools help an entrepreneur add content to the Web site quickly. However, many tools such as calendars, forums and polls, may require more time than the entrepreneur can afford. Most entrepreneurs who achieve success with Web promotion start small with a basic Web site and then add features such as e-mail newsletters and forums after the initial site proves to be an effective marketing tool.

Box 33: Promoting Consulting Services on the Web

Ellen is an organizational development consultant providing seminars and consultations in her city. She registered her name with a domain name registration service that provided five Web pages and hosting for a $75 set-up fee and $50/month. She had five templates to choose from and could easily add content with the template program. Ellen posted her resume, current projects, upcoming seminars, photos and her curriculum vitae with an e-mail link. When potential clients contact Ellen from her ads in local newspapers and yellow pages, she directs them to visit her Web site for her credentials and to view pictures of her in action. By sending three to five potential customers to her Web site a week, she avoids sending them her printed portfolio (at $3 each) and saves almost $20 a month. Off-line advertising of her Web address also brings new clients.

Hosting

All e-businesses require hosting services.[37] During the late 1990s, NotchNet signed up with its hosting provider as a "reseller" which means that it "rents" a server off-site to provide hosting services directly to its clients. NotchNet pays approximately $12 per month per site and charges clients an average of $25 per site per month. This rate is comparable or less expensive than other hosting providers. It will pro-rate fees for low-income clients or people with very small sites and compensate by charging higher fees to larger sites.

Security

Finally, security is important for all entrepreneurs who sell on the Web. Savvy shoppers always check to see if the Web site has a small padlock on the bottom taskbar of the browser before entering their credit card number. This icon indicates that the site is hosted on a secure server with a security certificate known as a Secure Sockets Layer (SSL) Web server certificate. Advanced Web shoppers may click on the icon to see who actually owns the certificate. Smaller companies tend to

[37] The renting of a server (type of computer) that stores Web pages and is always connected to the Internet. In order for a Web site to be accessed over the Internet, it has to be stored on a server that is configured to host Web sites. When a visitor looks at a Web site, the information is sent from the server to the visitor's computer.

use their host's security certificate that is included in e-commerce hosting packages.[38] While this option is more affordable, it is also less secure and can, therefore, scare off some Web shoppers. All browsers have a setting for security levels. Web users who keep their security level option set at high will see a warning when they visit an e-commerce site that is using a shared certificate. It is just a pop-up warning that does not prevent the user from placing an order, but it may deter some shoppers. Shoppers who have browsers on low security may not notice the shared server and feel comfortable ordering because of the padlock icon. However, given these constraints, alternative ordering options such as phone or printable order forms with fax and mail information are recommended.

Web site Promotion

To effectively promote their Web sites, entrepreneurs need to know who their targeted customers are and how they are likely be drawn to the site. They should explore a combination of electronic and traditional advertising mediums.

Web site owners quickly realize how hard it is to get visitors or "hits" to the site. Promoting a Web site requires time, money and significant trial and error. A principal way to attract traffic to the site is to list it with one or more major search engines. To achieve this goal, entrepreneurs can research on Google and other search engines about how to get listed.[39] Search engines charge for listing a site and most paid listings require a credit card. Yahoo! starts at $299 per year for a non-guaranteed listing.

In addition to listing a site with a search engine, site owners will want to learn how to improve their ranking on the list and thereby increase traffic to the site. Techniques for increasing traffic include:

- Use of keywords throughout the site that targeted customers might use to find a business on the Web. Because search engines look for relevant content when searching for sites, the placement of key words in plain text on various pages is very effective.
- Reciprocal links to find related Web sites to link to each other because "link popularity" is how most leading search engines rank Web pages.
- Pay-per-click ad campaigns whereby a site owner pays the search engine to place his or her site on the front page of its listing in response to a specific key word. These campaigns cost on average $30 to $50 per month.
- Image tags or words that come up when a person scrolls over an image.

To promote a Web site without spending money requires an investment of time to cultivate links, submit to free directories, keep content fresh, and improve the listing ranking. Again, the leading search engines rate listings based on link popularity and fresh content. NotchNet helps clients to meet these challenges by teaching them how to cultivate reciprocal links and by providing information on the latest trends. NotchNet provides a one-hour Web marketing consultation to Web site owners either on the phone or on-site for a one-time fee of $50. Clients bring their current Web traffic report to discuss trends, options and costs for attracting more visitors to the site.

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[38] Larger on-line stores need to secure their own SSL Web Server Certificate, which proves to the world that the business is well established and has paid approximately $200 for the certificate. Organizations that authorize these certificates include: VeriSign (www.verisign.com) or Thawte (www.thawte.com)

[39] NotchNet provides each client a list of Web site resources to learn about search engines, how they are used and which sites to visit. See the Tools section of this manual for this resources list.

Programs should remind clients of tips they can use to promote their Web sites. In California, Women's Economic Ventures lists the following tips in every e-newsletter:

- Put your Web address on everything you print.
- Put your Web address on your voice mail.
- Get yourself e-mail at your domain.
- Use a signature tag.

Box 34: The Power of a Few Words

A rural craftsman who specializes in panel beating, a unique form of bodywork for vintage sports cars, hired a professional designer to create a Web site that explains his services. The site looked great, but no one was going to it because it did not have any text on the front page for search engines to find. The panel beater decided to emphasize the words panel beating on each page of the site. He then participated in a pay-per-click ad campaign for the words "panel beating". Since that is uncommon, he only paid 5 cents per click to appear on the front page of Google listings when a person searches for panel beating. He also solicited reciprocal links with related Web sites. These techniques for optimizing his site tripled the traffic count to his Web site in just two months.

A family farm in Vermont sells organic eggs. Initially its informational Web site listed stores where the eggs are sold. But the owners wanted to expand their market by making the Web site into a more effective tool for people to learn about the farm. They added the keywords organic eggs numerous times to the content and image tags. They also participated in a pay-per-click campaign for the words organic eggs. The family checked its keyword count on www.keywordcount.com, boosted its link popularity, and check its popularity regularly at www.linkpopularity.com. These combined techniques doubled the farm's Web site traffic count and helped to expand its market into other states.

Finally, traditional forms of advertising can significantly increase Web site traffic and sales. For example, Matt, an entrepreneur who sells his pastel prints to be used as guest books for weddings, built and promoted a Web site. He submitted the site to every on-line bridal shop and search engine. However, this on-line advertising was not generating enough business. When Matt started advertising in a bridal magazine, his orders increased fivefold.

Calculating the Total Cost of Ownership for the complete Web process will allow clients to make informed decisions about Web marketing. More information about total cost of ownership and Web planning is available at: www.techsoup.org.

Box 35: One to Watch: WORC Web

Women's Opportunity Resource Center is launching a new Web-building and e-commerce tool for microentrepreneurs from around the country. At www.worcweb.com, WORC is providing microentrepreneurs with existing businesses an easy way to promote their enterprises on-line. Depending on the level of service an entrepreneur chooses, this could include an on-line directory listing, Web development and Web hosting services, and e-commerce services.

Updating and Upgrading Web sites

The business owner's on-line presence must reflect product and price changes, branding changes (such as labels), and changes in the market.

The most successful sites are dynamic and ever evolving. Yet, keeping content up-to-date is a challenge for business owners. The variety of tools designed to update content still require someone's time (the business owner or a consultant) to write the content, upload it and revise it. New options for "content management tools" are becoming affordable. NotchNet offers a variety of customized content management options to their clients including:

- **Editable text boxes** that allow Web site owners to change the written content of the Web site by accessing an on-line form and submitting text changes.
- **Images uploaders** that allow Web site owners to change pictures on the Web site.
- **Web Editors** that give Web site owners complete control of the Web site with a private control panel to drop and drag text and images on their Web page.

However, entrepreneurs with limited time and minimal monthly changes to their Web site may find that hiring a Web designer to complete those tasks is the most affordable and efficient way to update their site.

In addition to updating, entrepreneurs may want to upgrade their sites. They can expand with Web-based e-mail addresses, a shopping cart or other features as their business grows. Add-ons such as surveys, polls and forums can be integrated into the site to increase visitor interaction. These programs are available for free with advertisements or for a price ranging from $50 for basic scripts to $500 for customized applications.

Common Challenges

Business on the Internet is a complicated business. While much of the design and purpose of Web marketing will flow from the entrepreneur's grasp of the business as a whole, it does offer a range of technological tools few understand and that are challenging to keep up with. As entrepreneurs work their way through the processes and issues discussed above, they are likely to face the following recurrent challenges.

Marketing plan

As stated above, some clients will be eager to jump into the Web without creating a business marketing plan. Prior to making decisions about an on-line marketing plan, entrepreneurs should consider the demographics of their current customer base and their access to and use of the Internet. If current customers are not making purchases on-line, an entrepreneur's on-line presence may be primarily for advertising, communicating with vendors or developing a new customer base. When targeting new audiences, entrepreneurs must research where they currently shop on the Internet and how to gain their attention.

Content

Writing for the Web is very different from writing hard copy because Web site visitors tend to skim rather than read extensively, move around out of order and look at headings and hyperlinks.[40] This different way of reading illuminates the importance of succinct, attention-grabbing writing for the Web. Similarly, it is important that the content of the site is visually pleasing. While a Web marketing firm can help, the entrepreneur should solicit feedback on the site from friends and current customers before going "live." Finally, content for the Web site should match the overall "voice" of the company. Copywriting workshops or local copywriting consultants can help microentrepreneurs address this challenge.

Box 36: A Mismatch of Words and Image

A baker who specialized in elegant wedding cakes created a Web site to feature his cakes. He was not comfortable writing, so he let his Web developer write the copy. To keep the site "friendly," the Web developer wrote light hearted, almost comical captions for the cakes. When the baker showed the site to his staff, they found the words took away from the elegance of the cakes. They decided to hire a copywriter who could capture the style the bakery wanted to present on the Web.

Quality images

New users of digital photography need to be cautious about placing images on their sites that are unclear, too large or too small. The capacity of a customer to download may determine whether they stay with the site. Entrepreneurs would be wise to test how long it might take an average customer to download their site (e.g., use a dial-up connection to access their own site). To ensure quality images, NotchNet contracts with a local photographer who charges $100 for the first session and $50 for each additional one-half hour.[41] The Women's Rural Entrepreneurial Network in Bethlehem, N.H., was able to create a photo shoot space for approximately $1,000, including a digital camera, scanner and other equipment. The photo space and training together ensure that WREN clients can post quality pictures of their products on the Web and for print materials such as sell sheets.

Keeping up with marketing trends

Entrepreneurs must keep up with the fast-changing on-line marketing trends. Subscribing to an on-line marketing newsletter or Web site is an easy way to stay up-to-date with market trends.[42] For more resources for promoting Web sites, see the Web promotion resource in the Tools section of this manual.

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[40] Gerry McGovern and others, *The Web Content Style Guide: The essential guide for online writers, editors and managers* (Financial Times Prentice Hall: October 2001); available from http://www.gerrymcgovern.com/web_content_style_guide.htm; Internet.

[41] These prices are in a small town in New Hampshire. Prices will vary significantly.

[42] The most recent information regarding search engines is available at: Search Engine Watch. Com Web site, *The Source for Search Engine Marketing & Optimization*; available from http://www.searchenginewatch.com/; Internet.

Usability and accessibility

The variety of browsers (e.g., Internet Explorer, Netscape) presents a challenge to Web site visibility and use. Older browsers do not support new types of programming such as flash or java scripts. Because Web users do not update their browsers with any predictability, sites must be designed for as many different versions of browsers as possible. Different size monitors and settings can also display the site differently. The techniques listed on the Web site www.cast.org can help owners make their Web sites accessible to all users. The free Bobby service will scan Web sites for accessibility and provide tips and accessibility guidelines.[43]

Using the Internet for Research and Communication

Entrepreneurs can use the Internet for many purposes other than business promotion and sales. It is an excellent tool for both research and communication as discussed below.

Research

The Internet is an essential tool for conducting research. Learning about competitors, finding suppliers and gaining knowledge about a market are all done more easily with the Internet. Betsy Tipper, a Women's Business Counselor, at The Women's Business Center of Coastal Enterprises, Inc., explains how to conduct research on the Web:

> "As a start, check out your competitors on-line. How do your prices compare? How do they promote a similar service or product and how do they describe the features and benefits to their on-line customers? Do they suggest new ways to use what they sell that you have not considered? Next, take a look at suppliers. You may locate items you need at lower cost. Review the vast amount of government information on the Web, from regulations to resources such as the SBA. If you are considering international sales, investigate the international trade associations and read information about the countries where you hope to do business. Market research using census information from your local area is easy on the Web."[44]

In addition to researching the inputs that help create the end product, the Web is a great place for investigating prices for office supplies and professional services. Whether or not the final purchase is made on-line, the Internet can serve as an easy and efficient way to comparison shop.

Customer communications and support

Connecting with customers is essential to the success of any business. The examples below show how the Web enables entrepreneurs to save money and time with customer communications.[45]

Post-purchase e-mail follow-ups (comparable to follow-up calls to ask customers about their satisfaction with a product). Example: "Thank you for making your purchase with ABC firm. We appreciate your business and want to be sure that you are satisfied with your purchase. Please do not hesitate to contact us with any comments or suggestions about the service you received from our company or the quality of the product. We welcome your feedback!"

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[43] According to the Watchfire Corporation, which now manages Bobby, it is a "comprehensive Web accessibility software tool designed to help expose and repair barriers to accessibility and encourage compliance with existing accessibility guidelines. Bobby tests for compliance with government standards, including the U.S. Government's Section 508. It offers prioritized suggestions based on the Web Content Accessibility Guidelines provided by the World Wide Web Consortium's (W3C) Web Access Initiative. Bobby allows developers to test Web pages and generate summary reports highlighting critical accessibility issues before posting content to live servers."
See Watchfire Web site, *About Bobby*; available from http://bobby.watchfire.com/bobby/html/en/about.jsp; Internet. It's especially useful for testing access issues that may be experienced by people with disabilities.

[44] Betsy Tipper, "Using the Internet for Business Research," *Kennebec Business Monthly*, October 1998; available from http://www.ceimaine.org/women/bizmo_10_98.htm; Internet.

[45] List adapted from TinCan on-line course: TinCan Web site, *E-Business for Small Business*; available from http://ebusiness.tincan.org/; Internet.

Rapid responses to e-mail inquiries. Business on the Web moves quickly, and people will go elsewhere to purchase products if they do not receive timely responses to their inquiries. Entrepreneurs can set up an automated reply to confirm receipt of inquiries and inform customers about when they will get a response (We will get back to you within 24 hours).

Frequently Asked Questions page on the Web site. Entrepreneurs should anticipate what their customers most often want to know. They can track the questions received to date and ask friends to look at their Web site and generate a list of their most pressing questions. A Frequently Asked Questions page is a valuable addition to the Web site which should be adapted as the business grows and changes.

Helpful tips, instruction and ideas that add value to the product or service may generate additional sales. Offering additional information about products or recommendations for other purchases can trigger customers to make additional purchases. For example, Amazon makes recommendations for books or music based on the customer's music taste. Although this function is automated on Amazon's Web site, small entrepreneurs can accomplish the same thing in an e-mail or by including complimentary purchase recommendations on their Web site. For example, if an entrepreneur is selling pet fish, she or he would also want to recommend plants and gravel and specific fish tanks that are appropriate for each fish purchased.

Product information on-line, such as instructions or manuals. When customers contact the entrepreneur to inquire about product information or instruction manuals, the entrepreneur can easily direct the customer to the appropriate page on their Web site. This saves printing and distribution costs and allows entrepreneurs to update materials more frequently when products or services change.

On-line advertisements of sales and/or promotions. Whenever an entrepreneur is having a sale or special, she or he should be sure to include information about it on the Web site and update it regularly. Similarly, the Web site should show any updates and changes to products and/or labeling.

Customer cultivation. The entrepreneur can use the Internet to further cultivate customer relationships through newsletters and customer satisfaction surveys.[46]

In summary, this chapter provides a glimpse into Web marketing, which offers something for almost everyone. But the many options require careful consideration of the marketing objectives, the entrepreneur's ability to effectively use the selected Internet marketing strategies and overall costs. Microenterprise programs, as always, have a responsibility to help their clients stay focused on their business objective as the first and last point of discussion when considering how to use the Internet for marketing and sales. And, as with any of the technology-related services discussed in this manual, programs will need to do additional research before offering Web marketing assistance or referring clients to other service providers in their community.

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[46] For an online survey tool see: Zoomerang Web site, *Create Surveys & Get Feedback*; available from http://www.zoomerang.com; Internet.
For help with e-mail newsletters see: Topica Web site, *Tap Topica's Experience – and Get Email that Delivers*; available from www.topica.com; Internet.

Conclusion

As stated at the outset of this module, the experience of microenterprise development organizations with technology services for clients is still new, and practice is evolving rapidly as practitioners jump in to help clients master skills that can make the difference between success and failure in the marketplace. Like any new endeavor, the field is strewn with hard-won lessons, and this document is intended to help readers build on, rather than repeat, them.

The most important lesson is one the module started with, namely that **business needs must drive technology choices**. The Business First principle makes sense for both programs and clients: keep the focus on programmatic or business objectives, and choose the simplest and most appropriate technology interventions that can support their accomplishments. In doing this, the challenge is to look for balance between immediate needs, financial constraints and the longer-term business vision. As programs learn to seek that balance in their own technology planning, they will gain greater capacity to guide clients to do the same.

The second key lesson implied by the first is **the importance of developing a technology plan.** Again, programs need to mirror this behavior for clients, basing their own choice of technology services and technologies on a studied understanding of their market, their range of potential partners, and their own practices and resources. Important here is that the leadership for these efforts must come from the organization's own staff, or in the case of the clients from the business owner him-or herself, using technology specialists as advisors and implementers but never decisionmakers in their own right.

The third key lesson is always, always, **always consider the *total cost of ownership* in planning any technology initiative**. The module contains examples of entrepreneurs led astray in purchasing equipment that is costly to maintain. Programs, too, have faced serious challenges here, starting computer labs and then finding it daunting to keep equipment upgraded and facilities staffed with knowledgeable trainers and TA providers. This lesson is so important that leading technology funders will not support efforts that do not adequately consider ways to keep start-up and ongoing costs low (through strategic alliances with other organizations) and demonstrate a plan for ongoing sustainability.

We have also tried to suggest that one of the most effective things that microenterprise programs can offer microentrepreneurs is a conceptual framework for thinking about their technology needs, making better choices and planning to build their capacity over time. A good grounding in basic principles and in knowing the right questions to ask of themselves and any external consultants they might hire will carry clients a long way. **Helping the client become an informed consumer and user of services is as important as any specific skills that she or he will learn while in the care of the program.**

This doesn't mean that there are not other services that programs can offer. Case studies in the text have identified successful program experience in offering skills training in Windows, QuickBooks, desktop publishing, Internet use, and Web marketing, all areas in which clients express strong interest and which have direct applicability to business operations and marketing. Where these services have been offered most successfully are where the context provides few other options and where the technology training has been carefully integrated with other business services. Programs have also demonstrated that there are ways to help clients access hardware and software that are responsive to business needs, that don't leave clients with problem equipment, and that position them for future technology acquisitions. Doing this requires more than just serving as a transfer point between some well-minded individuals and some eager customers. It means careful matching of capacity to product and of linking users to reliable technical support.

We've also tried to suggest the opportunities and challenges involved in training clients through distance learning. Offering business development training on-line makes real sense for busy microentrepreneurs but it involves much more than simply transferring current curricula to the Web. Pioneers in this field have demonstrated that developing a successful service involves adapting content, ensuring that users have ample opportunities to interact with trainers and with other learners, and that follow-up services are available. They've also demonstrated that this training is not inexpensive. Once again, partnerships with local universities, among others, make sense to leverage the sophisticated hardware and software needed to make this work.

Finally, the module has addressed the issues associated with doing business on the Web, and again cited the challenges programs have faced in trying to help their clients build markets through venturing into sales on eBay, through program-run Web malls, and through their very own sites. Once again, the clear message is that **microentrepreneurs must learn that an overall marketing plan comes first,** and any plan for Web marketing follows that. A second message is that there are several levels at which they can engage in Web marketing, and it is not wise to skip rungs on the ladder of technology complexity. Starting simply and gaining experience is as important here as it is in buying office equipment and automating business functions. Clients who learn that they must market their Web site as they market their business will also be the ones who gain most advantage from this important investment. Because a Web site is such an expense, the module contains a variety of tools to help programs help clients assess their needs and their skills in this area and to effectively communicate these to Web developers and other computer consultants with whom they may work.

Finally, it should be clear to the reader that technology services are attractive to clients and necessary for them to succeed in this sophisticated U.S. market. At the same time, the challenges for programs in offering them can be daunting. Best practice programs do not enter into them lightly, as they imply real costs in equipment, in staffing and in a variety of supporting costs. Those who take up this challenge in the future, however, can build on their learning and help move the field even further ahead. We hope in doing so, that they will be willing to share their experience with the same openness and enthusiasm that the case organizations here have done. Our gratitude, as always, goes out to these leaders who have made this guide possible for the rest of us.

Tools for Technology Services

This section presents a range of tools and references to on-line resources that can help microenterprise programs assist their clients use technology to advance their business objectives.

The tools include guidelines that can help both programs and clients develop better technology plans, hire more appropriate consultants and develop systems to protect their data. They include sample material from AcceleratorOnline that illustrates the features of Blackboard and Web CT, used to support dynamic distance learning courses. And, finally, they contain a set of assessment, planning and contracting tools to help clients think through and plan Web site development and other forms of web-based business activities.

The tools are:

Planning

- Choosing the Right Consultant, TechSoup
- Guidelines for Protecting Data, Veronica Francis
- Internet Connections Options, Veronica Francis

On-line Learning

- Description of Selected Features of Blackboard and Web CT, Accelerator On-line
- Memorandum of Understanding between AO and one of its community partners, AcceleratorOnline

Doing Business on the Web

- Web Site planning Tool, NotchNet
- Sample Management and Hosting Contract, NotchNet
- Web Promotion Assessment sheet, NotchNet
- Web Promotion Services Contract, NotchNet
- Computer Skills Self-Assessment, TechLink New Hampshire

In addition to these tools, readers may wish to look at a number of Web-based resources that relate to the range of topics discussed in this module. While many were referenced in the text, some additional sources are also listed here. The resources are:

Planning

- www.techsoup.org Community Web portal with technology articles and news, discounted software and hardware, message boards and tools and resources.
- www.howstuffworks.com/firewall.htm Information about fire walls.
- www.verisign.com or www.thawte.com Information about security certificates for Web sites.
- www.snopes.com/computer/virus/virus.htm Information about viruses.

- www.techlinknh.org/newsite/evaluate/ On-line technology skill level assessment form.
- www.zdnet.com , or www.download.com Virus software reviews and information.
- www.techfoundation.org Checklist for healthy technology systems.

Technology Funding

- www.growbusiness.org.
- www.techfunders.org A collaborative of self-selected members of funding organizations that engage in technology-related grant-making.
- www.nten.org Provides information about regional conferences and nonprofit funding resources, both on-line and in person.
- www.techfoundation.org Discounted and donated technology, technology fellowship placing recent college graduates in NPOs; seminars for IT leaders, senior managers, and funders; newsletter and grant program.

Office Automation

- www.techsoup.org Community Web portal with technology articles and news, discounted software and hardware, message boards and tools and resources.
- www.discountech.org or www.techsoup.org/DiscounTech A new service of TechSoup, DiscounTech, is a technology product distribution service for nonprofits. For an administrative fee, nonprofits can order donated and discounted technology products.
- www.techsoup.org/mar Microsoft Authorized Refurbisher (MAR) Donation Program provides Windows 98 and Windows 2000 operating systems to U.S.-based nonprofit PC refurbishers. The goal is to make more refurbished PCs available to nonprofits, K-12 schools, and technology access programs.
- The List , ISPs.com, ISP-Planet , CNET , ComputerUser.com , ISPCheck.com Can search for ISP providers by zip code on all of these sites.
- www.giftsinkind.org/ Gifts-in-Kind is a charitable organization funded by 3M. Top manufacturers and retailers, including 40 percent of the Fortune 500 companies, rely on Gifts In Kind International to design and manage the donation process.
- www.charityadvantage.com Provides technology assistance to nonprofit organizations through Web site development, computer donations, and computer purchase assistance programs.
- www.helpinghand.net Provides 56K modem Internet access to nonprofit organizations and their clients.

On-line Learning

- www.edutools.org/course/productinfo Information on approximately 40 distance education products.
- www.worcfinancialed.com An on-line learning program for financial literacy and savings accumulation.
- www.micromentor.org An on-line mentoring program connecting microentrepreneurs with industry-based mentors.

Doing Business on the Web

- www.topica.com Electronic newsletters.
- www.cast.org and http://bobby.watchfire.com/html/en/index.jsp Guidance and tools to increase Web site accessibility
- www.geocities..com, www.bigstep.com , www.homestead.com (Template Web site builders).
- www.keywordcount.com Counts keywords on Web site.
- www.linkpopularity.com Increase link popularity.
- www.Inc.com Offers sample Web development contracts.
- www.worcweb.com Offers microentrepreneurs various levels of services in order to promote business on-line, including an on-line directory listing, Web development and Web hosting services, and e-commerce services.
- www.zoomerang.com Electronic surveys.
- www.soho.org/Technology_Articles.

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MIS for Microenterprise: A Practical Approach to Managing Information Successfully, written for microenterprise program staff and management, this 190-page manual is an accessible, thorough and practical guide containing the steps and processes that can be used to build an effective Management Information Systems (MIS). It describes the essential parts of an effective MIS and their relationship to each other, the organizational factors that influence how an MIS should be designed and managed, how to define information needs and assess the appropriateness of available software to meet them, and how to implement and use an effective MIS. Priced at $35, this manual can be ordered on-line or through the Publications Hotline.

2002 FIELD MIS Software Review, a companion document to the *MIS for Microenterprise* manual and an outgrowth of the Findings Report first published by FIELD in 2001. It contains detailed reviews of 11 major commercial software products designed for use in the microenterprise field, and was written to both clarify information needs and serve as a "consumers report," analyzing currently available systems so that practitioners can make more informed purchasing decisions. The review is priced at $20.

A section of FIELD's Web site (www.fieldus.org/li/index.html) also provides information about FIELD's research into such topics as: how practitioners can deliver effective training and technical assistance; how microenterprise organizations can expand their outreach and generate significantly higher numbers of clients; how organizations can help microentrepreneurs sell their products in more lucrative markets, and how microenterprise assistance can help clients transition from welfare to work. For general information about FIELD, please visit: www.fieldus.org

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