

DIGITAL PERSPECTIVES  
BACKGROUND PAPERS

## 9. HOW TO PUT THE WEB TO WORK FOR NONPROFITS

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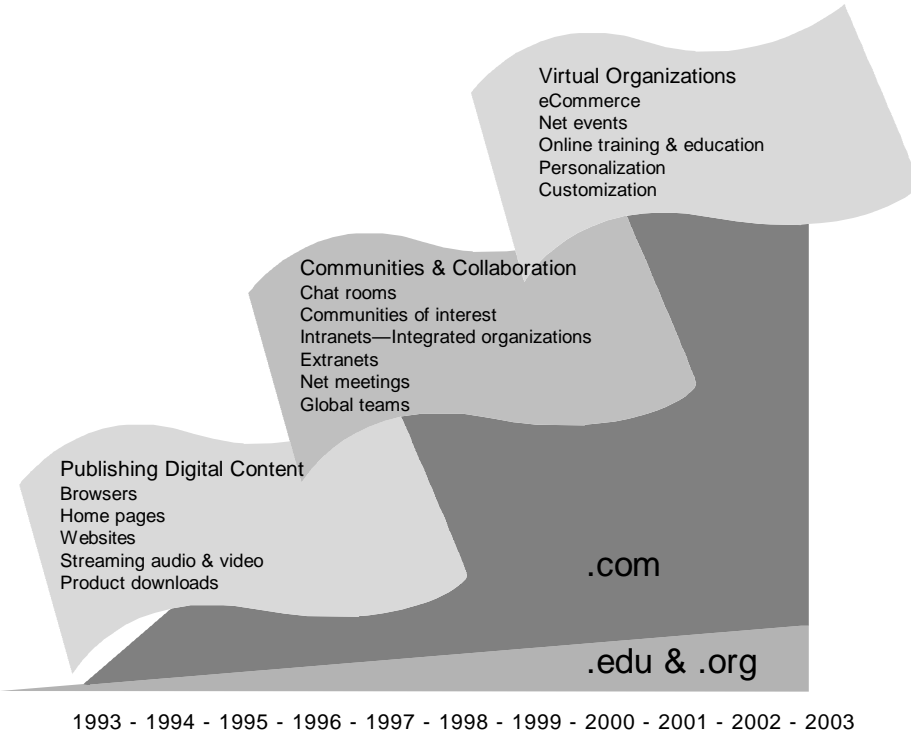
In 2001, nonprofit organizations lag behind for-profit businesses in using the Internet to benefit their constituencies—clients, students, visitors, members, and users. By contrast, a decade ago, government agencies, universities, and research institutions were the earliest users of the Internet, and enjoyed the fastest and best connections to it.<sup>1</sup> In 1993, academics and scientists installed a new kind of software on their computers, Mosaic, a “browser” developed at the National Center for Supercomputing Applications, a unit of the University of Illinois at Urbana-Champaign. Mosaic’s use of visually lucid hyperlinks and graphics was inspired by the work of Tim Berners-Lee and the World Wide Web Project. Mosaic changed the way people used the Internet to connect to remote computers. Before Mosaic you could log on to available computers anywhere on the Internet, collaborate with distant colleagues, and see text and data, but it was an environment for specialists that required knowledge of advanced computer commands.

Mosaic made it possible for its users to go places, such as the Honolulu Community College’s Dinosaur Exhibit, and see and hear things, such as taking a tour of dinosaur models and listening to history instructor Rick Ziegler describe them. Many people who saw and heard the Internet using Mosaic’s intuitive user interface were captivated instantly. “Cool” home pages were added to the World Wide Web daily. Regional schools like Honolulu Community College gained international exposure. Academic institutions and nonprofits embraced burgeoning web technologies early, months before many companies “discovered” the Internet.

Today, the Internet provides opportunities to communicate up-to-date information, improve the delivery of services, recruit staff, reach new audiences, and

more. It has allowed profit-making organizations to move up several levels to providing services, and means of delivering them, that were literally undreamed of a decade ago. (See Figure 9.1.)

FIGURE 9.1: WAVES OF INTERNET INNOVATION



The same array of opportunities is open to nonprofit organizations. To understand how a nonprofit might use web technologies to enhance its activities and expand its reach, the organization needs an overall web strategy aligned with its mission. Starting not with technology but with organizational goals, the purpose of a web strategy is to respond to a breathtaking array of new possibilities. It is as dramatic as if we woke up one morning and were no longer limited by gravity. In this antigravity-like state:

- we have access to information and services anytime, anywhere;
- all information products—text, graphics, sound, video—are digital;

- digital products can be delivered electronically;
- go-betweens are not needed since people can look up, book, order, study, research, and publish directly;
- we communicate with people and groups over the Internet;
- almost anyone or any group anyplace in the world can join in.

Broadly speaking, a web strategy describes how an organization's core activities, operations, and relationships can be enhanced and extended through the use of technology. (See Figure 9.2.) Technology is simply a tool that organizations or schools can use to expand their horizons or make it easier to achieve their goals—but it is that tool that makes these activities possible. An effective strategy assumes that the web is not an isolated application or a toy but the plumbing connecting all of an organization's core activities.

FIGURE 9.2: TOPICS COVERED BY A WEB STRATEGY



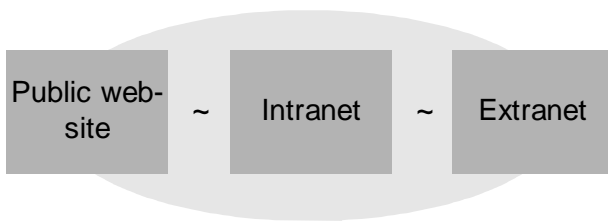
## OPPORTUNITIES

It is not overstating the case to say that the majority of nonprofit organizations have not taken advantage of the Internet nearly as much, as intelligently, or as productively as the for-profit sector. This is unfortunate since the Internet offers nonprofits excellent opportunities to increase their usefulness to their constituencies. This paper will show how some innovative nonprofits (.orgs and .edus) have used new technology to enhance existing programs and services and extend their reach to new audiences.

Nearly all businesses have set up web pages and websites. These are generally classified into one of three types: public websites, intranets, and extranets. Companies use public websites to market and sell products, reach

new consumers, and provide improved service in less time. Within companies, employees log on to private, web-based intranets to read company news, connect to local databases, and get training, and e-mail is the ubiquitous replacement for interoffice memos. Significant changes in business models are unfolding as companies create extranet links to their partners, suppliers, and customers, speeding up business and creating closer bonds through timely, plentiful information. Organizations of all types have been able to connect their computers and their data (or at least, the data they wish to “connect”). The result is a system that is much more valuable, and much more useful, than the sum of its parts. (See Figure 9.3.)

FIGURE 9.3: AN ORGANIZATION'S INTERNET SYSTEMS WOVEN TOGETHER USING COMMON PROTOCOLS



### PUBLIC WEBSITES

At the most elementary level, most nonprofits and academic organizations have web addresses (also known as “uniform resource locators,” or URLs), e-mail, and websites providing basic information. At this level, a simple website functions as an online brochure displaying information that does not need to be revised often, mirroring an organization’s printed publications. A basic website does not “do” much—it merely broadcasts facts and contact information, with minimal need for an employee to find material requested by an outsider, put it in an envelope, and take it over to the post office.

For example, the website of the College Music Society in Missoula, Montana, “makes available a wealth of information concerning the field of music.” The College Music Society “is a consortium of college, conservatory, university and independent musicians and scholars interested in all disciplines of music. Its mission is to promote music teaching and learning, musical creativity and expression, research and dialogue, and diversity and interdisciplinary interaction.” This mission is supported by the website, which publishes infor-

mation on participating members, upcoming conferences, colleague organizations, and online scholarly publications.

Internet technology allows organizations to do more than simply publish printed material in electronic form; websites also are used interactively. A common feature allows visitors to search a website for specific information. For example, the Smithsonian Institution's Encyclopedia Smithsonian allows users to search the entire contents of the Smithsonian's extensive website. If your questions about the Smithsonian are not answered, you can send your inquiry in an e-mail message.

Many websites have e-mail links encouraging online users to send messages. Other sites provide printed forms that can be faxed back or sent through the mail. Colleges, for example, put their applications online using these straightforward techniques. Online applications were among the first and most popular features on college and university websites.

Another interactive feature allows visitors to communicate with organizations by entering information into online forms that are sent electronically. This approach to data collection is more sophisticated than communicating via e-mail, faxes, or mailed documents because after visitors enter their data over the web, it is used to automatically update the organization's databases, eliminating the need for manual data entry. For example, instead of downloading a paper form, prospective students can choose to apply to the University of Chicago online. The university site connects to a commercial online service offered by Embark, one of several companies that have been started to process applications online. Embark's service takes advantage of the Internet's distributed nature: it does not matter where computers and services are located as long as they are secure, password-protected, and connected. Virtual organizations are defined by the logic of their connections, not their geographic locations.

Some organizations allow users to purchase products and services online using credit cards. After verifying a user's credit (performed by sending the data entered by the user to a networked credit-checking service), the transaction is completed, customer information is collected, and order information is sent directly to a fulfillment system. More advanced electronic retail operations can also check product availability while customers are online by connecting to inventory databases.

Because online retail sites are expensive to build, many nonprofits and schools have not invested in e-commerce systems. However, in addition to fund-raising and membership, many nonprofit organizations have a variety of products to sell, including books, reports, educational materials, videos, tickets, and other specialized merchandise. Less expensive systems and contract services are becoming available, allowing more organizations to use e-commerce on external websites. For example, visitors to the Museum of Fine Arts in Boston (MFA) website can purchase exhibition tickets and annual memberships in the same transaction. Site visitors who might never visit the museum

can order items from the museum's gift shop by linking to the MFA's online shop. Similarly, dozens of nonprofits have developed online retail sites using Yahoo Store, an inexpensive way to launch an online enterprise. Yahoo Store's software package includes database inventory, online orders, auctions, gift registries, and billing features. Using Yahoo's retail service, the Coastal Conservation Association store offers memberships and books. San Francisco's Lamplighters Music Theatre store sells tickets to performances, CDs, and videos. Human Rights Watch offers memberships and publications.

Nonprofits can use their websites as "portals," which serve as the entry point for finding a wealth of sites and information with a common theme. These sites educate users, provide basic information in their areas of expertise, and point to other experts in the field at the same time that they promote their own goals. A portal is considerably more useful than an "ordinary" website and enhances an organization's reputation and credibility. For example, the Harvard School of Public Health site includes public health information about exercise, healthy diets, and the risks of driving with cell phones. Some visitors visit the site primarily to use an interactive survey that calculates Your Cancer Risk.

A public website is working well if it:

- paints a clear picture of an organization's purpose, people, services, and products;
- provides accurate, timely information and facts for new and existing users;
- makes it easy for site visitors to join, enroll, apply, donate, or order;
- educates the public in the organization's area of expertise;
- reaches wider audiences of Internet users, expanding beyond the base of local members, visitors, and past participants.

## INTRANETS

The Internet made e-mail the most common form of internal communication, rapidly replacing office memos and interoffice mail. Once staff members were networked together, businesses began building internal websites—intranets. These "internal use" networks are used to put current information and data at employees' fingertips quickly and comprehensively, with efficiency that cannot be matched by paper distribution systems. Experts speculate that eventually the use of intranets and business-to-business connections will far exceed public activity on the Internet.

An intranet is a website set up to meet the needs of an organization's employees. It uses the same software as a public website and may include

public as well as private (password-protected) information. Some information on an intranet is created by employees, who place documents they have created on their own computers on the company intranet, where they can be shared by colleagues. Since most desktop documents can be saved in web format, nontechnical employees can participate in creating the information posted on a company intranet.

Today, even the smallest nonprofits have external, public websites, but a few pioneering nonprofits have transformed internal communications and processes by building comprehensive intranets that provide access to their internal information and databases—policies and procedures, schedules, project timelines, directories, and planning documents. For example, the Camp Fire Boys & Girls organization uses its intranet, “The Camp Fire Café,” to link the national office in Kansas City, Missouri, to more than one hundred local councils. News and events are posted daily. The AARP (the association for Americans over fifty), in addition to an extensive external website, has developed an intranet that includes member, employee, and public information.<sup>2</sup> The University of Delaware’s Center for Composite Materials intranet features personnel directories, laboratory safety manuals, graphics templates, purchase requisitions, travel request forms, time sheets, and vacation request forms, in addition to the center’s mission statement, history, news, and publications.

Intranets that tie together all of an organization’s databases are even more useful than those that simply post information for employees. Nonprofit organizations have the same need that businesses do—for the left hand to know what the right hand is doing. One way to create an integrated enterprise, close information gaps, reduce phone tag, and eliminate the need for paper reports is to provide password-protected, browser-based access to existing departmental databases. Most “old technology” systems—those designed to deal with functional areas such as finance, human resources, student records, curatorial records, and so on—can be queried from an intranet if an organization sets up web access to information in legacy computer systems. Although there is always someone around who knows how to get the information you need from each old system, intranet access can make things much easier when all authorized staff use databases as easily and conveniently as ATMs.

Examples of intranets of this type include that of the Academy of Natural Sciences in Philadelphia, which has links to the museum shop retail database and to information about its collection. Notre Dame and many other universities and large institutions have created web access to financial systems. Many colleges and universities, such as New York University, also have built intranets for their students, where they can look up their grades online. At the University of California, Irvine, Graduate School of Management, students use an intranet, dubbed Catalyst, to link to course assignments and quizzes that faculty enter into an online academic “file cabinet.”

An intranet that links an organization’s data systems and is the official place to post local news and announcements will become the heart of an orga-

nization's communication and information platform. A single jumping-off point for all of an organization's employees is a powerful, efficient tool. An intranet is being used well if it:

- integrates the enterprise and its people and activities;
- becomes the first place users go for internal information;
- engages the many employees who use it to communicate with each other;
- provides access to all mission-critical databases;
- presents information clearly and navigates easily; and
- replaces paper communications and documents with accurate, timely information in digital form.

## EXTRANETS

All organizations have close associations with other firms and people who are practically "members of the family." Board members, for example, expect to have access to up-to-date reports and data. Extranets are another extension of the Internet idea—private ("by invitation only") networks of internal and public websites that allow organizations to share information with specific individuals and other external partners.

Companies use extranets to speed up and improve communications with their suppliers and vendors on the one hand and with customers on the other. Nonprofits manage many close external relationships with boards, trustees, foundations, donors, and so on. A website designed for members of an organization's community can improve the flow of communication and increase meaningful collaboration and partnership. For example, parents of students at Milan High School in Milan, Michigan, log on to contact school administrators and teachers, learn about sports and school events, and check out the references on the "Homework Helper." The Internet Society has a section of resources for "Members Only." Many other organizations have made web resources available as a benefit of membership. Most universities have created websites to foster continued relationships with alumni. The Idaho United Credit Union site allows members to check balances, pay bills, and make transfers twenty-four hours a day. Parents log on to see their children at Kiddie Academy in Hillsborough, New Jersey, via a web cam (a live video feed over the Internet).

An extranet may also be used to connect to services from a chain of partners and contractors. An extranet provides links to an array of other organiza-

tions that a nonprofit has established relationships with to benefit its users. When information flows smoothly and is automatically integrated with back-office databases, extranets can improve an organization's responsiveness, accuracy, and breadth of services. For example, Saint Anselm College in New Hampshire uses a large online textbook company, eFollet, to provide its online bookstore. Distance learning college Rio Salado and the libraries of scores of other institutions have licenses that allow their students to link to commercial information sources like InfoTrac and Dow Jones.

Some companies that sell exclusively to other businesses—so-called B2Bs—use the Internet to do business with each other. This improves their efficiency and productivity. For example, they can automatically reorder supplies when inventories fall below a preset point. This approach automates some manual processes and can prevent annoying situations such as running out of supplies. There are numerous areas in which such “friction-reducing” business-to-business applications can be used.

Streamlined interactions with suppliers and corporate clients will benefit nonprofits as well as companies. Organization-to-business extranets allow purchasers to enter orders directly into a vendor's order entry system, for example. Nonprofits and schools with web know-how take advantage of these developments and partners.

An extranet is a good investment if it:

- enhances relationships with close constituencies;
- improves the flow of information to the community;
- fosters cooperative partnerships;
- provides a wider range of appropriate services; and
- automatically collects data for existing organizational databases.

## WEB TOOLS: TWO-WAY INTERACTIONS OVER THE WEB

One of the powerful aspects of Internet technology is its ability to support two-way communications and interactivity. A website that handles transactions as well as publishing information is interactive because it responds to specific requests from site visitors. Chat rooms, bulletin boards, and other features allow site users to participate in creating content on the website. These features may be either unregulated or closely monitored, depending upon their use. The most successful examples attract communities of interest where people share and create knowledge around specific topics. These forums are extraordinarily successful in connecting people across geographic boundaries.

In addition, real-time, interactive events can be broadcast online using web conferencing software. Events on the Internet can be directed at very small audiences and groups since it is relatively easy and inexpensive to provide the technology platform required to host web events and conferences.

## WEB TOOLS: PERSONALIZATION AND CUSTOMIZATION

Internet technology allows organizations to let users provide information about their interests, activities, and requirements for products and services. When people are willing to share contact information and preferences with an organization via the web it is possible to personalize and customize news and reminders. It is also possible to build websites that create web pages dynamically, based on the specific information an individual site user supplies. These pages typically contain current information from the organization's databases, tailored to the specific user based on information previously collected about him or her. These personalized sites can provide individual feedback and assignments for students, for example. Medical practices can provide customized information for specific patients based on their medical histories and preventive medicine interests. The phenomenon of distance learning, which already has millions of participants around the world, draws upon the Internet's strengths in providing interactive and personalized experiences, as well as remote access to quality content.

## HOW TO GET GOING

Every technology innovation requires a sponsor, an internal champion, and an enthusiastic, skilled implementation team. Nonprofits may need support to get from here to there. Support can come in the form of sponsorship, planning, or implementation. Given such an array of opportunities and tools, each nonprofit needs to have a vision of the path to follow in developing its response. Unlike old technology systems, web-based systems can be built in small, minimally disruptive increments, using modular units of software and improving gradually. Figure 9.4 illustrates an incremental improvement strategy that is appropriate for many nonprofits and schools. Begin by using Internet technologies to enhance existing programs and activities. Next, plan focused projects to extend existing programs to constituents that are close at hand, providing new services and interactions. Finally, pursue new audiences using skills and experiences gained previously by building integrated web systems and content.

Figure 9.5 illustrates how to align technology and goals. Guiding principles spring from an organization's mission, which defines its core activities, operations, and relationships. Technology is useful and appropriate when it

FIGURE 9.4: PATH-BASED STRATEGY

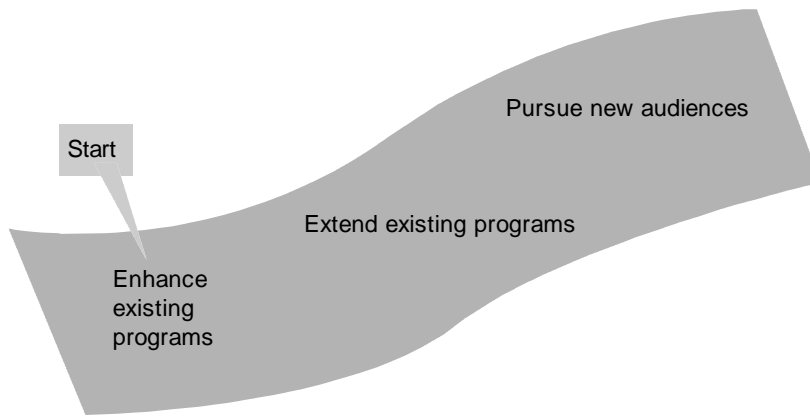
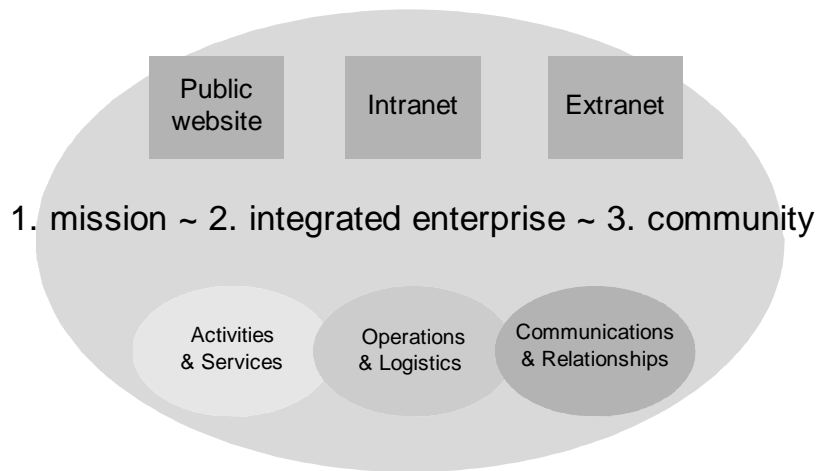


FIGURE 9.5: THE WEB, DEEPLY EMBEDDED IN THE CORE OF AN ORGANIZATION



supports the mission; it is superfluous and distracting when it does not. An organization that integrates the skills of its people with its information and systems using Internet technology will find it easier to exploit the capabilities of the web. Over time, organizational content and skills developed for an intranet can flow easily to a public or external site. When everything works together as easily as the telephone system—so-called plug-and-play technology—and when all staff are online, innovations and improvements will develop spontaneously. The key is to focus on the needs of the community and the services an organization seeks to deliver, rather than becoming entranced with the technology. Opportunities arise from organization-wide, hands-on experience with emerging technology combined with a deep knowledge of the needs of constituents and the definition of excellence in the field.

## NOTES

1. For more information, see the Internet Society's document "A Brief History of the Internet," <http://www.isoc.org/internet-history/brief.html>.
2. CIO Magazine's 50/50 Web Business Awards, [http://www.cio.com/archive/070100\\_gains.html](http://www.cio.com/archive/070100_gains.html).