Are You @?

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e-commerce, e-business, e-learning, and now e-government. Everyone has a website. It's a twenty-first century version of hanging out your shingle. But there's more to e-government than having a website. It's been only thirteen years since the U.S. government went online. In that short time, and often riding on the coattails of commercial applications, governments have learned to use their websites as a tool for administering programs, providing services, and engaging citizens in government and community. Those online capabilities are the "e" in e-government.

For many smaller governments, your first website probably was the baby of an innovative employee, willing to take it on as an extra assignment. Now that website has grown, and it represents a significant investment of time and tax dollars. How can you be sure it's working for you? How can you be sure it has value to your staff and your citizens?

A simple analysis of your site will give you some clues. It takes no expertise—no surveys, no focus groups, no statistics. Those tools may be helpful later, if you need to make changes. But for starters, use the questions presented in the analysis tool accompanying this article to look at your site and estimate for yourself how well it achieves six key goals of e-government:

- Focus on people
- Focus on service
- Usability
- Accessibility
- Effective content management
- Costs and benefits

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In the Blink of an Eye, Historically Speaking

"e" is everywhere, but it's still a newcomer. Big users of the Internet can easily forget just how recently it swept in and changed everything. Think back twenty years, to 1987: chances are you hadn't even heard of it. Lots of Apple IIe's and 286s were around, but nothing was networked. Four years later—1991—the Internet was the newest thing, but it was all text. It allowed limited access to university and government resources from a distance.

Then www—the World Wide Web—hit like a tidal wave. Suddenly, individuals, schools, and small businesses could access and publish information through graphic websites on the Internet. If you were in the corporate world, you may have gone online a little earlier, but for most people, the Internet entered the mainstream of American life only 10–15 years ago.

Look at a comparable technology revolution: The automobile first entered the mainstream of American life in 1913 when Ford introduced the moving assembly line to mass-produce cars. The next fifteen years were filled with innovations that Americans today take absolutely for granted—stop signs, traffic lights, four-wheel brakes, car heaters, safety glass, numbered highways. Over the last fifteen years, the Internet has gone through comparable developments in speed, capabilities, and the role it plays in people's lives.

When anything changes that fast, it's no surprise that some individuals and organizations are running a few years behind the curve. But with the Internet, a few years behind is a big gap. Closing that gap requires leadership and a commitment of human and financial resources. At the same time, it offers an interesting opportunity to benefit from the experiences, successes, and failures of others. You also can refer to your own experiences using Web resources to help

decide what works, what's important, and where to focus your investment.

What Makes Government "e"?

The Internet broke out of its government/Defense Department/university incubator after the World Wide Web and graphic websites hit the scene. Corporations and businesses have led the way in developing new online capabilities: buying and selling, teaching and learning, creating spectacular visual impact, providing all kinds of services. In a short time, e-commerce has completely changed how people do business, locally, nationally, and internationally.

e-government uses the tools of e-commerce to enhance delivery of government information and services to government employees, citizens, and government's business partners. e-government has been slower to develop than e-commerce but is now a strong presence at national, state, and local levels. The U.S. government went online in 1993. Now people can file taxes, apply for jobs, and access information and services from all government agencies online. By 2004, ninety-eight percent of cities surveyed across the United States had some kind of website, and 77 percent had websites that allowed the public to conduct online transactions and receive online services.[1]

When local governments first start, your websites often are not much more than online brochures of static information. They tell who you are, introduce your departments, give phone numbers, and often present travel information or histories of your community. The next step in developing the website is to add some information about the services each department offers—hours, employees to call, and e-mail contact information. Not really "e" yet.

When you start adding forms and applications for people to download, when you start organizing information by user groups (contractors, homeowners, businesses, seniors, etc.) rather than by departments, when you start providing outside links to help people solve problems that go beyond the services you offer directly—these steps take you into the realm of "e." When you enable people to make payments for services or taxes online, when you make it possible for people to submit completed forms and applications online, when you reduce the cost of providing services and improve the level of services by offering them online—then you are deep in "e."[2] Congratulations!

Where Are You?

So where are you on the continuum from a website about your local government to e-government? You can use the observations and questions provided in the accompanying analysis tool to evaluate your website on six of the key goals of e-government—and therefore of website design.[3] Doing the analysis should take you only an hour or two at your computer. (A few outreach questions involve talking to your staff to get additional insight, if you have the time.) If the examples offered don't apply to your community, try to think of something similar that does.

You won't answer yes to all the questions; you wouldn't want to. Some of the options overlap or wouldn't work well together. Consider the questions as an *a la carte* menu of basic "e" capabilities and functions. If you're not satisfied with your progress, the final section of this article offers suggestions and guidelines for moving your community further toward e-government.

Website Analysis

Part 1—Focus on People
What to Look For

___ Yes ___ No Does your home page (the first page of your website) have links taking different groups of citizens (new residents, families, employees, etc.) to the information they are most likely to need?

___ Yes ___ No Is some of the information arranged in a question-and-answer format?

___ Yes ___ No Is there a Frequently Asked Questions section?

___ Yes ___ No Can people find out what procedures to follow for a variety of common problems? Test the website: Can they find out what to do about a stray dog? How to get a building permit? How to help an elderly relative apply for Medicare? How to dispose of paint and solvents?

___ Yes ___ No Can people find schedules and agendas for public meetings?

___ Yes ___ No Can people review the minutes of public meetings online?

___ Yes ___ No Can people request services online? For instance, can they e-mail someone to obtain a duplicate copy of their tax statement online?

___ Yes ___ No Can people make comments about the website? If they make comments, do they get replies?

1—Focus on People
Who will use your website, and what do they want from you?

The current emphasis in e-government is to provide services, information, and transactions that citizens want and need. Savvy web designers base design decisions on the needs of the target clientele, so they help you carefully identify your clientele—citizens, employees, business partners—early in the site-development process. Input from your clientele plays a significant role in determining the content and organization of the website.

Secretaries and receptionists can offer tremendous insight into what people want and need. What do they request? What do they call about? What do they have to come to the office for? Websites can provide a primary source of information for citizens: How do I . . . ? Where can I find . . . ? Whom do I speak to for . . . ? The history of your

Website Analysis

Part 2—Focus on Service
What to Look For

___ Yes ___ No Can people download applications for an outdoor-fire permit? A driveway permit? A business privilege license? A county or city job? A marriage license?

___ Yes ___ No Can people fill out and submit these applications online?

___ Yes ___ No Can people access county or city ordinances?

___ Yes ___ No Can people access county maps? Property records? Geographic information system (GIS) information?

___ Yes ___ No Can people register to vote online? Reserve public facilities? Order copies of birth certificates?

___ Yes ___ No Does the website give people the option of registering for community events?

___ Yes ___ No Can people pay their local taxes online? Their water bills?

___ Yes ___ No Is there a clear notice that financial transactions like the foregoing are guaranteed to be secure?

___ Yes ___ No Are privacy policies clearly announced on the site?

___ Yes ___ No Does the website have a service that lets people request e-mail updates on certain topics?

___ Yes ___ No Does the website include a survey or polling feature that solicits input on certain topics of public interest?

___ Yes ___ No Can employees take care of government business online, such as filling out expense reports?

community has its place on your website, but history is not what most people need on a daily basis to run their business, get their house built, get their trash picked up, or get their kids enrolled in community athletic programs.

Assess your site on this dimension (see "Website Analysis," Part 1, on page 18).

2—Focus on Service
Can people transact their business with you online?

Most starter websites focused on information: let us tell you about our departments and programs—where they are located, what they do, who the key staff are. It didn't take businesses long to realize they could do a lot more over the Internet than provide information. Quickly they had people shopping, ordering, and paying electronically. In the dot.com revolution of the 1990s, they harnessed the Internet as a means of providing business and shopping services to their customers.

Government services are rarely as tidy as the business buy-and-sell model. But many governments now use their websites as tools for providing at least some of their standard services. In addition to being a source of information about processes and procedures, the website becomes a source of the forms and applications needed to get permits and apply for services. It provides information about fees; it also is a means of paying those fees. People can find out about job openings or bid opportunities on the website; they also can apply for jobs or submit bids online.

A service-oriented website puts people in touch with solutions, yours and others'. Links to higher levels of government, integrated into your website, can serve as a seamless extension of your services. Your website can help the people in your community find information and make transactions that they need and want. Whether the service comes from you or from the state or federal government, your site becomes the portal for "one-stop government."

e-government services do not replace written, telephone, fax, and counter services. Many people have no access or minimal access to the Internet and online services, or they are not comfortable using the Internet to transact business. Complex cases and problems do not lend themselves to Internet solutions. Governments always will need to maintain effective face-to-face channels for providing services. But for many people who want standard, common services from government, the website offers round-the-clock information and services from the convenience of home.

Assess your site on this dimension (see "Website Analysis," Part 2, on page 19).

3—Usability
Can people find what they're looking for on your website? Is it easy to use, read, and understand?

Many factors contribute to the impact your website has on people. If they get discouraged in the first few minutes trying to get help, that's just as bad as if you had a receptionist in your front office who was rude or didn't know much about the services you provide. Creating a website that's easy to use requires, again, a focus on the people using it: What will they be looking for? What words will they use to try to get to that information? How well do they read, and what language do they speak? What kind of computer are they using, and how fast is their Internet connection?

A U.S. Department of Education study of adult literacy indicates that half of all Americans read at the eighth-grade level or lower. Unfortunately, the average readability of U.S. government websites in 2003 was the eleventh-grade level.[4] Highly educated people who write content for websites may require special training to learn to write at an appropriate level for their target audience. "Plain-language writing" now is a requirement for federal government documents and websites (though sometimes you wouldn't know that). It uses words and sentence structures that are appropriate to the targeted audience. Jargon and acronyms appear only if the target audience for that piece of information will be familiar with them.

Designing for usability also requires some understanding of how people access and use information. Your menus and links need to make sense and be easy to navigate. Organizing websites by department or agency has minimal use for citizens. They don't know which department is responsible for a given service. Instead, you should organize information by topic, interest group, keyword, or some other category that makes sense to the users of the site.

Finally, your site needs to be aesthetically pleasing. This doesn't mean it needs to have lots of "Wow" and "Cool." In fact, too much can distract from the

Website Analysis

Part 3—Usability
What to Look For

___ Yes ___ No Does the look of your home page give a good first impression of your city or county? What does it tell people about your community?

___ Yes ___ No Is the home page cluttered? Does it take more than a moment to see how the front page is organized and what the options are?

___ Yes ___ No Can people look at the menu options on the home page and decide easily which menu to click if they need to talk to the city or county manager? Get a permit for a new well? Renew a book at the library?

___ Yes ___ No Does your website have a sitewide search tool?

___ Yes ___ No Does your website have an index?

___ Yes ___ No Does the website load quickly?

___ Yes ___ No Do all the links work correctly?

___ Yes ___ No Print several pages from your website. Do they print correctly, without cutting off the words on the right margin?

___ Yes ___ No Is general information for the public written in short, easy-to-read sentences and paragraphs? Does the website use bulleted lists to make information even easier to understand?

Content Development versus Content Management

Content development and content management are two distinctly different processes. Both are critical in developing a successful, user-focused, service-oriented website.

"Content development" involves deciding what to include in the site. Many communities make the mistake of gathering whatever information is easily available and turning that into the content of the site. A more effective approach is market driven. It focuses on finding out from people in your community what they want and finding out from your employees what services they can offer. Content development should be a major consideration in your budget. The website, no matter how beautiful, is only as effective as the content you develop for it.

"Content management" refers to maintaining a website—adding information and keeping content up-to-date. It is one of the biggest challenges of successful e-government. Specialized software for content management makes it possible to assign individual passwords for each page on the website. These passwords give one person in each department or agency access to that unit's content on the website. The interface is very simple, so staff members don't need to learn specialized web programming software. The software allows each unit to control its own critical information and service offerings. The software also spreads the work of maintaining the website among more people without risking unwanted changes to the website's underlying programming and design. Sixty-eight percent of U.S. cities are currently using or testing speciaized software for managing website content.[1]

Note
1. National League of Cities and Center for Digital Government, *2004 Digital Cities Survey—Final Survey Report* (Washington, D.C.: the League; Folsom, Calif.: the Center, 2004).
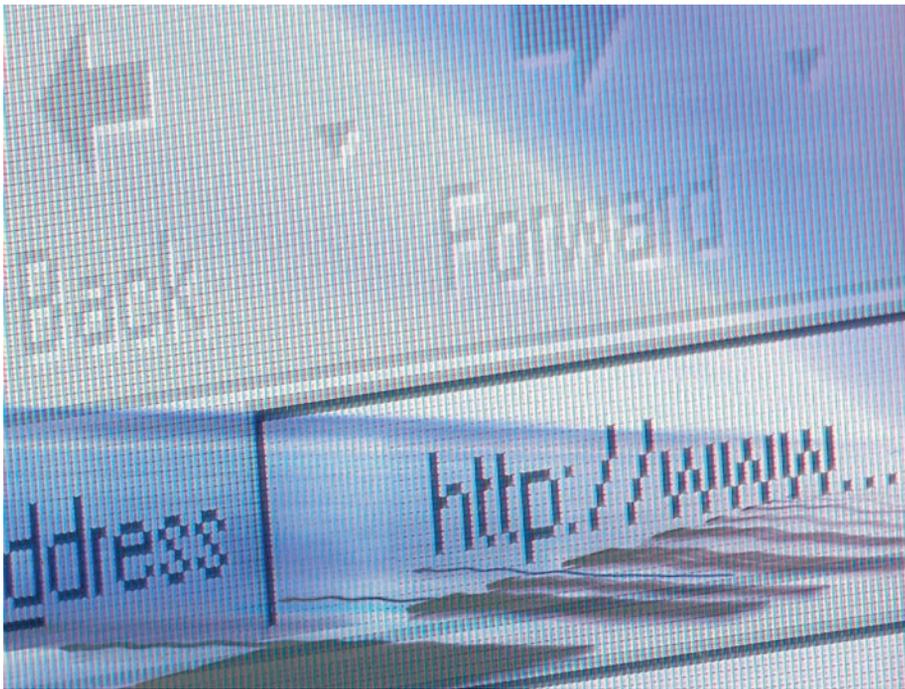
users' focus on their mission with your website (and you). The site tells people something about the character of your community. It makes an impression, and you want it to be a good one. Pages should be uncluttered so that people can find what they want. Pages should include graphic elements to focus attention on important information. And they should definitely use colors and fonts that are easy to see and read.

Assess your site on this dimension (see "Website Analysis," Part 3, on page 20).

4—Accessibility
Is your website accessible to people with a wide variety of disabilities and special needs?

Section 508 of the Rehabilitation Act requires that governments receiving federal funding comply with certain standards for making websites accessible to people with visual and other impairments.[5] The World Wide Web Consortium has developed a similar set of Priority Level 1 guidelines for ensuring accessibility.[6] These standards are not required of local governments, but they do set an ideal for service to all members of the community. Philip Young covered the topic of standards thoroughly in the Winter 2005 issue of *Popular Government.*[7] The website analysis accompanying this article provides two simple questions you can use to check whether your website design addresses some basic Section 508 accessibility standards.

Assess your site on this dimension (see "Website Analysis," Part 4, on this page).

5—Effective Content Management
Is your site updated frequently, and is the information accurate?

How useful is a website that was "last updated on January 23, 2001"? You might as well not have a website if you don't have a system for managing the content—for maintaining the site effectively and keeping information accurate and up-to-date. Whether you use contractors or have an in-house website manager, content management will always have a strong tie back to your departments. They drive the updates.

Website Analysis

Part 4—Accessibility
What to Look For

___ Yes ___ No   If you hold your mouse pointer over a photograph or an illustration, does a descriptive label come up?

___ Yes ___ No   If you go in Internet Explorer to View/Text Size/Largest, or in Netscape Navigator to View/Text Zoom/200%, does most of the text on the website get bigger? Does the page still work?

Website Analysis

Part 5—Effective Content Management
What to Look For

___ Yes ___ No   Does your website say when it was last updated? How recently was it updated?

___ Yes ___ No   If you have a calendar of meetings and events, are meetings and events posted for the next several months?

___ Yes ___ No   Think of the most recent personnel change at the department-head level. Is the new hire listed on the website?

___ Yes ___ No   If you have a News, or What's New?, or Current Events link, are the items posted current and relatively new?

___ Yes ___ No   Is there any place to post critical information such as weather-related closings?

___ Yes ___ No   Is there any information on your website about significant recent or upcoming events, such as tax due dates, property tax reappraisals, elections, and changes to ordinances? Is the information up-to-date?

Outreach Question

___ Yes ___ No   Ask staff members what they do to make a change in or post information to the website. Can department heads get new information posted on the site within a week if they need to?

If your system requires that all web-site changes go through the director of finance or the sheriff's administrative assistant (because ten years ago he or she took it on as an extra assignment), it may be hard to get timely information posted. Even if you have a designated staff member or department to maintain the website, there may be a bottleneck in getting new information posted. One option for reducing the bottleneck is use of specialized software for content management (see the sidebar on page 20).

Assess your site on this dimension (see "Website Analysis," Part 5, on page 21).

6—Costs and Benefits

Do your Web-based services have economic benefits, both for your agencies and for the people in your community?

If your citizens don't have to drive to your office, if you don't have to mail the forms, if your people can get the information they need today, if you don't have to spend time on the phone explaining procedures—all save money for you or someone in your community.

Secretaries, receptionists, and other employees can answer the same basic

Website Analysis

Part 6—Costs and Benefits

What to Look For

___ Yes ___ No Can users download a job application form? An application for a building permit? Applications for social services? Requests for proposals (RFPs) for government purchases or contracts?

___ Yes ___ No Can users fill in and submit any of the foregoing forms online?

Outreach Questions

___ Yes ___ No Ask a receptionist for the three most frequent questions from callers. Are the answers to these questions posted and easy to find on your website?

___ Yes ___ No Ask your webmaster whether your website employs a monitoring tool to count how many users access the website and to keep track of which parts of the website they are using. Do your department heads use this information to plan revisions or expansions of online services?

___ Yes ___ No Do you promote your website so that people know to look there first? Is the address posted on your tax mailings? On utility or water bills? On brochures and fliers you distribute? In your offices? Do receptionists know to encourage people to use the website?

questions hundreds of times a month by phone. If half of the callers could find the information they need on your website, it would free your staff for other work. They could provide more service to people who do need to call or come in for personal attention.

Likewise, posting forms online to download saves you the time and cost of mailing materials, and people and businesses the time and cost of coming to your office. Even better, if people can fill out forms online, that saves a secretary the time it would take to enter information from a written application into a database or another computer format. And if people can make payments online, they'll save postage or travel time, and you'll save the cost of personnel to accept payments in person.

It's easy to monitor these benefits by recording "hits": how many people access the website, how many people look at each individual page, and how many times each file is downloaded from the website. You can even collect informa-

Agencies

The **e-NC Authority** (www.e-nc.org) is a source of state government assistance for local government websites. e-NC's Local e-Government Utilization Project (LEG-UP) provided funding for fifty-five communities in North Carolina to plan and produce interactive websites with at least one transactional feature. As a result of this project, e-NC has a wealth of information about successful projects, applications, and vendors. It can offer guidance on technical questions about infrastructure and connectivity. It also can connect you with someone who participated in LEG-UP for direct feedback and advice.

The **Center for Digital Government** (www.centerdigitalgov.com) is a national research and advisory institute. It focuses on information technology policies and best practices in state and local government. Its extensive surveys of city, county, and state programs provide insights into national trends in information technology use and policy development.

The **Center for Public Technology** at UNC at Chapel Hill's School of Government (www.cpt.unc.edu/) is a source of technical assistance and information on website planning and design. It also offers opportunities for training and education for local government leaders, managers, and staff.
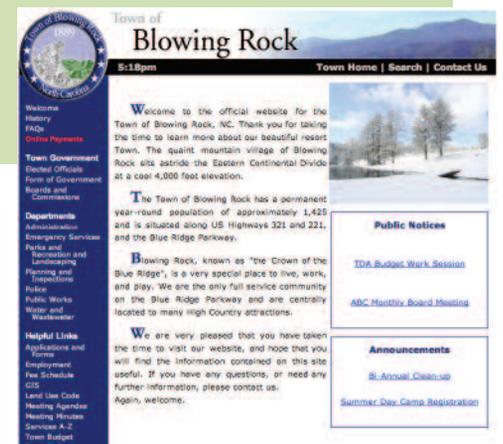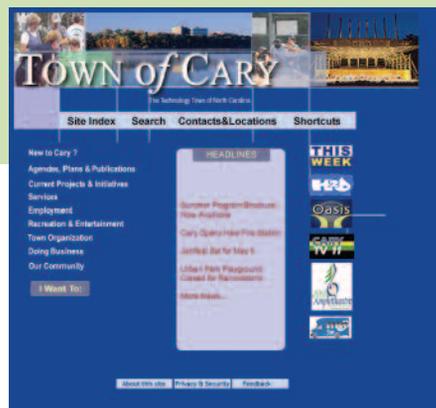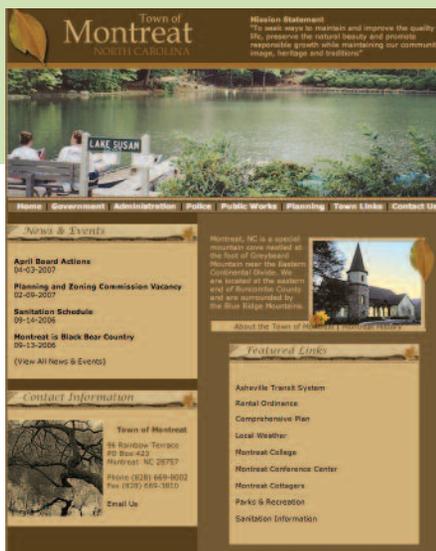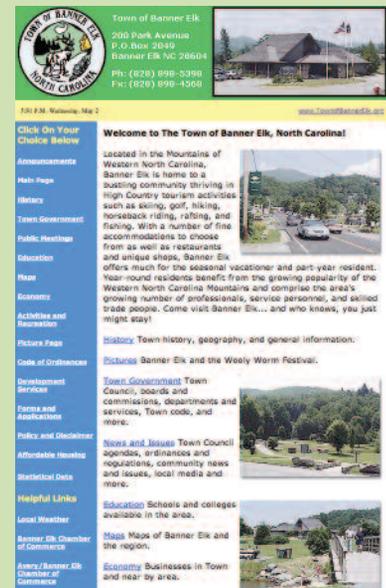
tion on whether the hits are from new or repeat visitors. Using this information, it isn't hard to project savings in staff time, printing, and postage and to determine which online services are offering the most benefit to the community.

Some other advantages of online services are less tangible, relating to hidden costs or enhanced opportunities. Websites overcome some of the obstacles of sharing information with large groups. They can serve a relatively unlimited number of users at the same time. They can spread demand for service over more of

the twenty-four-hour day. And they can serve people over a wide geographic area.

For economic development, the website is most likely the first impression you make on people and businesses considering relocation to your community. Government officials cite long-term economic benefits to justify major investments in recruiting new businesses and industries. You can use the same justification for developing a website showing that the community is dynamic and that the local government offers great services to residents and citizens.

Online services may actually cut the cost of providing services, and they may allow you to improve the quality and effectiveness of services. A 2003 Australian

study of e-government benefits reported that cost savings are achieved through a combination of direct savings, savings on delivery costs, and improved internal processes. Some agencies even have an increase in revenue from the use of new chargeable services.[8] Services such as renewing driver's licenses and hunting licenses, or ordering copies of birth and death certificates, can be offered online with a fee attached. Of course, you need to ensure the security of all online transactions.

In addition, online services can provide improved service at no additional cost. Individuals and businesses estimate a cost savings of up to $25 per transaction due to faster turnaround of infor-

mation requests and faster access to documents and forms. In the Australian study, more than 90 percent of citizens surveyed indicated an overall improvement in service delivery as a result of using e-government.[9]

Assess your site on this dimension (see "Website Analysis," Part 6, on page 22).

Now What? Strategies for Adding "e"

The accompanying analysis isn't a pass/fail evaluation. It suggests a continuum of investment. If you answered yes to a lot of the questions, then you're significantly invested in e-government. Indeed, in doing the analysis, you may have gotten some additional ideas that will help you develop an even more dynamic, citizen-centered, service-oriented online presence. If you couldn't answer yes to many of the questions, then you know you have an opportunity for growth. This is not a time to place blame. The current condition of your website is the result of investment or noninvestment by many people in leadership and staff positions over a long period.

In other areas—public safety, library services, social services—when you see the communities around you moving in a certain direction, you generally take some time to consider whether that direction would be good for your community. So maybe it's a good time to look at the websites of five or six of your neighboring communities with similar budgets and demographics. It wouldn't hurt to look at websites of larger or more progressive communities around you, also. Are those communities using their websites in ways that might be beneficial to your community?

Then you can look back at your website with your colleagues and staff and consider the following questions:

- Does your website solve problems for individuals and organizations by providing needed information and services online?

- Are you using your website as a cost-effective channel for agencies, departments, and employees to serve individuals and organizations?

- Does your website convey an image that contributes positively to local economic development efforts and to general public perception of the community?

If you decide to build your "e" capabilities, you can focus on four main challenges:

Market Research

- Find out what individuals and organizations want and need from you.

- Decide where to focus your investment and what you can realistically offer at this time.

Content Development

- Use public communication principles and your market research to collect and organize information and services.

- Use plain-language principles to write content for your website that will be logical and easy for people to use and understand.

- Make content development a major consideration in your budget.

Web Design

- Select the best Web applications to achieve your service goals.

- Design pages that will be attractive to people and easy to use and understand.

Ongoing Support

- Commit staff or resources to content management so that the website will be updated regularly.

- Establish realistic evaluation measures so that you can monitor cost benefits and other benefits to the community.

Whether you work with staff or with contractors, make sure your plans address each of these elements. Many web design companies will focus on design only, requiring you to provide all the content. That's okay if you know it in advance and have the capabilities (or an independent communications consultant) to do market research, develop content, and provide ongoing support.

It's easy to pay a lot for a website design that looks great but doesn't focus on people or service, isn't easy to use, is difficult or expensive to update, and doesn't offer any cost savings or service benefits to your community. But if you go into the process prepared, you can negotiate or coordinate to develop a dynamic cost-effective website that is user focused and service oriented. And finally you can declare, "We are 'e'!"

Notes

1. National League of Cities and Center for Digital Government, *2004 Digital Cities Survey—Final Survey Report* (Washington, D.C.: the League; Folsom, Calif.: the Center, 2004).

2. Jonathan D. Parks and Shannon H. Schelin, "Assessing e-Government Innovation," in *Handbook of Public Information Systems*, ed. G. David Garson (2d ed. Boca Raton, Fla.: CRC Press, Taylor and Francis Group, 2005).

3. The tool is divided into six parts, which are presented separately in this article. An integrated version of the tool is available online at www.sog.unc.edu/popgov/.

4. Darrell M. West, *Achieving E-Government for All: Highlights from a National Survey* (Washington, D.C.: Benton Foundation; Albany, N.Y.: New York State Forum, Rockefeller Institute of Government, 2003). Available at www.benton.org/publibrary/egov/access2003.html.

5. The standards are available at www.usa.gov/webcontent/reqs_bestpractices/laws_regs/accessibility.shtml.

6. The standards are available at http://www.w3.org/tr/wai-webcontent/.

7. Philip Young, "Local Government and the Internet: Key Issues and Best Practices for Nontechnical Officials," *Popular Government*, Winter 2005, pp. 20–27.

8. National Office for the Information Economy, *E-Government Benefits Study* (Canberra, Australia: Australian Government Information Management Office, Australian Government, 2003). Available at www.agimo.gov.au/__data/assets/file/16032/benefits.pdf.