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Local Governments Becoming E-Government: Getting the Sizzle, Avoiding the Fizzle

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The Internet has become an important way to communicate and to conduct business. The current evidence suggests that local governments have been slow to respond to these developments. This chapter examines the ability of local governments to reinvent themselves as cybergovernments. What actions will produce significant meaningful changes—sizzle? What are the threats most likely to produce a fizzle?

Change is not new to local government officials; they are the first to know good fortune and the first and hardest hit by crises, whether natural or man made. Currently, these officials face a new challenge, arising from rapid expansion of the world wide web that is ushering in a totally new standard of performance. A variety of relationships is now possible among governments and with businesses and citizens. These interactions and their attendant complexities are virtually limitless. Such a challenge is exacerbated by high hopes for dramatic changes in government. As one observer noted, “E-government advocates believe that an electronic tidal wave is about to sweep away the old stereotypes, leaving in their place sleek, responsive federal, state and local agencies and departments modeled on the nanosecond philosophy of private-sector E-tailing.”¹

Given the tremendous growth of electronic transaction within the private sector, it is understandable that citizens compare local government performance to that of e-commerce giants such as Amazon.com. Citizens can move from businesses to governments online in seconds, and so their expectations and changing perceptions of government service are inevitable. Yet, as pressure mounts for e-governance efficiency and effectiveness, many questions remain about the appropriateness of different options for service and communication and the ability of local governments to accommodate such change. Perhaps more than ever before, informed leadership is needed. Today’s decisions will have important implications for the future of individual governments as well as for the role of local government in our society. Can local governments catch this new technology wave and prosper? Or will they lose their balance and wipe out?

This chapter will aid the transition to e-governance by offering a careful review of the implementation challenges that lie ahead for local governments. This effort draws upon the literature from a number of fields as well as insight from practicing managers. We will also develop a model of local government implementation needs that may help to structure future studies of this rapidly evolving subject.

What Is E-Governance?

E-governance means electronic government. Technological developments allow for the conversion of all kinds of communication to a digital format. This includes documents, forms, letters, books, newspapers, professional journals, speech, telephone calls, television, movies, photographs, and music. The infrastructure of the world wide web allows us to store, transmit, and share these types of materials electronically. We are limited only by our imaginations, the band width available for transmission, and our ability to

convert materials and make use of them. E-governance exploits these abilities and processes to enhance governmental effectiveness.

What Can E-Governance Do?

Currently, e-governance can be described as undiscovered territory. That is, we have some sense of its outline and form, perhaps even what we would like to be able to do, although designing and implementing such systems has only just begun. To complicate matters, changes in digital technologies are extremely rapid and unpredictable. New opportunities are constantly popping up, along with barriers to progress. In the private sector, e-commerce ventures have been quixotic—driven by ideals and not bottom-line results. The outcomes of online operations have been mixed, to say the least. For example, the future of e-commerce giants like Amazon.com is murky. NASDAQ has suffered a meltdown. Clearly, the rosy forecasts of past years have faded.

Of course, e-governance initiatives need not follow the same path as private businesses. After all, local governments are not testing a new business model. They are looking for ways to fulfill their primary missions and responsibilities in new and more effective ways. Many feel that local governments can use information technology to their advantage.² Progress has been slow, however—despite stunning e-governance investment forecasts.³ For example, most local governments use their websites to provide lists of telephone numbers and to post location information and electronic addresses for specified department and agency staff. Findings reported in the *Municipal Yearbook* article found low levels of e-mail and intranet use by cities.⁴ While some accuse private companies of mindless creativity, most local governments appear to suffer from denial.

On the other hand, many local governments have begun to harness the power of new technologies in specific ways. One interesting e-governance application is the Who am I? feature, developed in Boston. Once citizens enter a street address, they learn their ward numbers, the locations of the appropriate voting precincts, key neighborhood links, contact information for elected officials, and dates for garbage pick-up.⁵ This system shows the ability of E-governance applications to provide useful information.

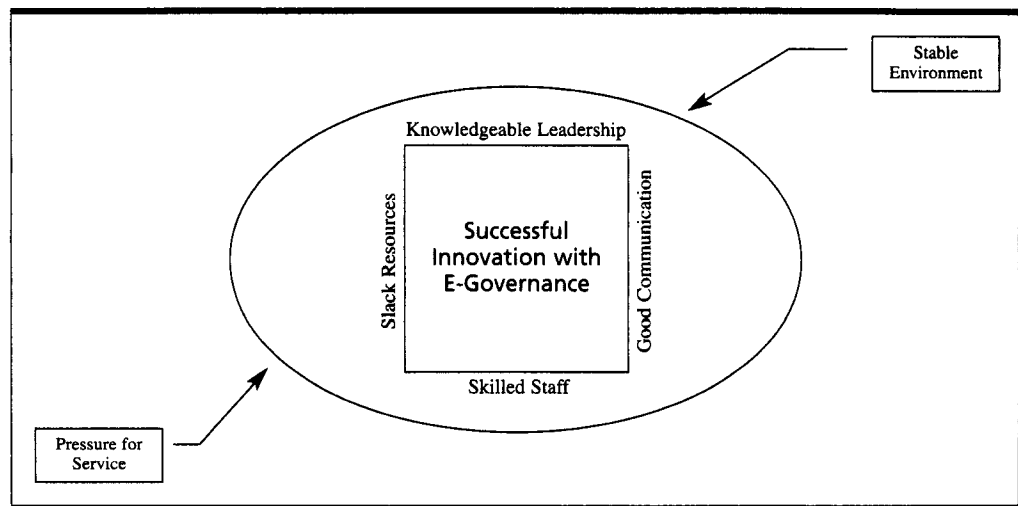
Another example of such innovation is found in Georgia, where small towns are looking at broadband service provision as good economic development policy. Although cable companies lobbied hard for legislative restrictions on municipal provision of cable service in Georgia, the General Assembly sided with local governments on the issue. Legislators passed a telecommunications act that allows utilities to provide cable and telephone service, given some accountability measures.⁶ Today, approximately 13 small towns in Georgia either own or are constructing a cable business that can compete with private vendors of such service. Most of these ventures are funded through bond proceeds. Several cities too small to afford their own systems (such as Cairo, Camilla, Moultrie, and Thomasville) have banded together to construct cable service that covers most of their residents.⁷

Applications like Who Am I? and joint ventures for cable service are exciting. They suggest that local governments can use information technologies to improve service and possibly for revenue generation. It is still unclear, however, whether e-governance applications can enhance the civic function of local governments. One possibility is to give citizens the ability to view council meetings on the internet—in real time or from archives.⁸ Archives are now available online in some governments. E-mail, bulletin boards, and mailing list discussions also can enhance communication. Surveys of website visitors are not hard to do. These kinds of tools may open important new communication channels. Finally, voting could be part of the online picture at some point, if significant barriers can be overcome.⁹

What Is Needed for E-Governance Success?

Developing e-governance applications is not a short-term project; fundamental changes are required and a long-term commitment is needed. Many local governments have some catching up to do, but even cutting-edge governments will need to adapt to new

Figure 1—Implementing E-governance



developments. Complacency is a threat, and yet progress will require risks. The internet gives local governments the opportunity to reinvent themselves. This is a wonderful opportunity, but it is not business as usual.

Innovation Doesn't Just Happen

Local government officials need information about how to make e-governance work, but there is little out there regarding substantive guidelines. As Brudney and Selden note,¹⁰ "voluminous research" has aimed to explain why one organization is more likely than another to adopt an innovation. The model displayed in figure 1 incorporates many of the key concepts discussed in the literature.

As the figure shows, a stable environment is essential to the development of e-governance. Progress requires time and energy, which are difficult to come by if local government officials are constantly battling day-to-day problems. A stable environment will allow knowledgeable leaders to put slack resources to use in developing effective e-governance strategies. Skilled staff and good communication would help to assure success. Pressure for service is the engine that will keep things moving. In the following sections, we will elaborate on each component of our model and discuss the supporting evidence.

A Stable Environment

Developing and implementing e-governance applications will require sustained attention by a city manager or chief administrative officer. These individuals do not have a lot of spare time for introspection or experimentation. As Ammons explained:

Local government managers rush from task to task throughout the day: a breakfast meeting with community leaders, a staff meeting back at the office, a half hour to dictate responses to letters or answer a few phone calls, a quick visit with a department head to discuss the concerns of a commissioner, lunch at a civic club, an afternoon that proceeds at much the same pace, an evening meeting, and a briefcase full of memos and reports to read at home.¹¹

Henry Mintzberg also discussed the challenges of executive work, the fragmented tasks, the brevity of everything, and the constant interruptions.¹² In a study of strategic management in local governments, Streib found that the ability of local governments to manage disruptive external political forces was an important threat to real progress.¹³ Academics and visionary authors may dream about the fantastic things that technology can do for local governments, but many of these ideas have difficulty germinating in reality, or can only do so incrementally.

Slack Resources

While an unstable environment may prompt an interest in new technologies, little can be done without adequate resources. This may give larger local governments an advantage.¹⁴ Affluent jurisdictions would also seem to have an advantage. Research does show that slack resources are one possible determinant of administrative innovations.¹⁵

It should always be kept in mind that inadequate resources (or inadequate investment) can produce a variety of problems. Certainly *no* e-governance might be better than would a failed effort that alienates users. As Hasenfeld and Brock observed,¹⁶ the lack of adequate support can lead to symbolic rather than substantive implementation. This is a real danger with new technologies, since the implementers may lack the sophistication needed to assess the value of different alternatives. On the other hand, resource scarcity can be the mother of invention. Remember the illustration above of several small governments pooling their bonding capabilities in order to pay for the construction of cable service for most residents living within their jurisdictions.

Knowledgeable Leadership

Leadership plays a critical role in the development of e-governance applications. At least one committed risk taker must provide the initial spark. Process champions are considered essential to other types of management innovations.¹⁷ A leadership team may also be helpful.¹⁸

It is unclear what level of knowledge is needed to provide leadership for e-governance, but credibility is essential. A technician is not necessarily needed at the top, but those in leadership positions do need to have a good sense of the costs and benefits of different alternatives. Local government managers who are perceived to be credible leaders can better manage conflict on governing boards¹⁹ and are more likely to be judged as successful innovators.²⁰

Many local governments may lack the vigorous leadership needed to be e-governance pioneers. Such pioneers would seem to be most likely to exist in a mayor-council government, when the mayor is strongly committed to e-governance. Progress in many innovative states has depended upon risk-taking governors.²¹ City managers are natural for the role in most council-manager governments, although research by Newell and Ammons²² suggests that they may be uncomfortable with this level of community visibility. They may do their best work behind the scenes, working to foster the type of environment where e-governance can flourish. This should include maintaining high levels of professionalism often associated with increased use of computer technology.²³ Risk taking and lateral thinking also have been shown to be important.²⁴ In council-manager governments, mayors and council members can help build for reforms that could be implemented by city managers.²⁵

Effective leadership for e-governance will present an even greater challenge to counties, given the greater diffusion of authority. Even when counties have appointed managers, they lack the level of authority common among city managers.

Skilled and Supportive Staff

The quality and commitment of local government staff will play a major role in the success of any e-governance initiative. Staff can be viewed as the actual implementers of any new e-governance policies or programs. Van Meter and Van Horn identified three things that could stop implementers from completing their assigned tasks.²⁶ Two are relevant to this discussion: dispositional problems, when implementers do not want to do what they are supposed to; capability problems, when implementers are not able to do what they are supposed to do.

Dispositional problems pose a potentially serious threat. The development of e-governance applications is a major change that will require a high degree of commitment at all levels, and this will be difficult to achieve. As Mintzberg noted, managers generally prefer structured, routine decisions rather than complex, unstructured choices. Most local governments have several layers of management authority.²⁷ These managers must

remain committed to e-governance progress, and they must gain and maintain the commitment of their subordinates. Oversight and encouragement will be needed to maintain progress.

According to Van Meter and Van Horn, capability problems refer to a variety of resource limitations.²⁸ In the present context, local governments need staff members who are well educated, or at the very least, eager to learn.

Good Communication

Van Meter and Van Horn argued that effective implementation “requires that subordinates (or implementers) know what they are supposed to do.”²⁹ Their model required policy standards and objectives to be transmitted clearly, accurately, consistently, and in a timely manner. While this is a good starting point, others have viewed communication more as a long-term proposition. For example, Beer, Eisenstat, and Spector saw organizational change as a negotiation process.³⁰ Research on the diffusion of innovation sees such initiatives “communicated *over time* among the members of a *social system*.”³¹ Research by Berry, Berry, and Foster found that ongoing employee involvement in the development of an expert system was an important determinant of implementation success.³² In interviews with public managers, Zegans found that innovation was possible in public agencies when managers gave employees the discretion to be creative without fear of reprisal.³³

What Barriers Must Be Overcome?

A number of significant barriers must be overcome before e-governance can thrive. These include the protection of individual privacy, adequate security for online information and electronic transactions, reasonable and equitable access to online materials, hardware and software, and effective technical support. Individual governments can find ways to cope with these barriers, but in some cases group action (involving universities, professional associations, and other levels of government) may be needed to totally break them down. The following sections further assess each of these needs as they relate to local governments.

Protecting Individual Privacy

Placing materials on the internet will require striking a balance between personal privacy and the public’s right to know what governments do. Isaacs suggests that local governments conduct a thorough review of state law to understand public record requirements.³⁴ They must also be cognizant of individual privacy concerns. Citizens must fully understand any terms and conditions of use that accompany any government information that they access online. Local officials should indicate privacy requirements on their web pages, preferably requiring users to accept the terms before they can gain full access.³⁵ Governments such as Westchester County, New York, have addressed citizen privacy concerns by uploading online information slowly, “with the least sensitive information going on the Internet first.”³⁶

The Need for Security of Information Online

According to Roberts,³⁷ online security is a major concern of state and local governments. To allay both government and public concerns, local officials must review all information that will be provided in order to determine the level of security that will be required. Technologies that are continually evolving are providing more security options. Firewalls can stop hackers and encryption technology can ensure restricted access to information and electronic documents. The use of electronic signatures and confirmation software can also help. Local governments such as Tucson, Arizona, and Greensboro, North Carolina, have successfully limited access and heightened security of their governments’ information and data by turning to centralized computer systems.³⁸

Maintaining security requires involvement from everyone associated with e-governance systems. Local governments must educate employees about the security concerns associated with using the internet and talk frankly with vendors and service providers about the confidentiality of data and electronic communications.³⁹ Local officials must be cognizant of vendor access to their governments' data, both during the start of an e-governance initiative and in the long term, regarding data storage or continuing technical support. Vendors that host government websites should not be allowed to monitor the use of government websites or the browsing habits of visitors.

Ensuring Technical and Equitable Access

Functionality is vital to a successful e-governance plan. Communication and transaction processing should be effortless and uncomplicated. The public should have easy access to government materials. Allowances also must be made for different types of access; there may be several methods for accessing information electronically.

For example, Isaacs explains that Seminole County, Florida, "provides GIS data for free download from its website and it sells the most frequently used layers of the GIS for \$40."⁴⁰ Residents with library cards also can check out the CDs from the county libraries and copy them onto their personal computers. Both the CDs and the downloadable files are updated quarterly.

Equity of access is even more important than technical functionality. For example, local governments must consider online accessibility for citizens with disabilities and those with low incomes. Also, should a government provide all online products in a language or languages other than English? In Westchester County, New York, GIS information is provided in both English and Spanish so that knowledge of waste site locations is not limited to English-speaking residents.⁴¹

Hardware/Software Savvy

Developing e-governance capacity is a long-term proposition. Startup costs for hardware, software, and technical assistance can be substantial. Many are willing to invest, however, and some government officials recognize that information expenditures are as important as those for traditional infrastructure of bricks and mortar.⁴² Thus, local officials must understand that any plan for online communication, no matter how small, cannot be completed with just an annual appropriation. Investment in technologies, training, and, possibly, consultants must be long-range and repeatedly championed by government leaders.

New laws that require technological advancement put further pressure on governments to expand their online capabilities. In October 2000, the Electronic Signature in Global and National Commerce Act (E-Sign Act) became effective. It requires government agencies to accept electronic signatures on any documents that can be submitted electronically—raising the bar for governments that might be experimenting with electronic documents.

According to Roberts, most municipal information technology (IT) dollars are spent on hardware, service, and support.⁴³ The size of the market and the complexity of the products create a high potential for dissatisfaction. Public officials shopping for e-governance hardware, software, or services must develop good communication channels with vendors. They must apprise vendors clearly of their needs, about how information will be used and by whom, about the necessary training requirements for staff, and must assure reliable assistance for lengthy periods of time after a purchase is completed.

Local governments can easily develop an e-governance capacity, starting slowly and building over time. Small local governments can start by securing an internet service provider. Perry points to Arlington, Massachusetts, as an example of how gradual development can work:

To make local government information more accessible to its residents, Arlington subscribed to an Internet service that improved the quality and content of the

town's Web site. Additionally, the town added software to its computers that allowed up to ten authorized staff members to post updates to the Web site. The Internet software includes an interactive calendar that allows staff members to post meeting times, places and agendas, as well as meeting minutes and daily public notices.

Arlington has tried to provide some of the amenities of an online 24-hour-a-day, seven-day-a-week town hall, and the traffic pattern at www.town.arlington.ma.us has increased substantially as a result. Last year, the town was getting 50 hits a day on its Web site; it now averages 100 hits a day. The town plans to attract more site visits next year, when it provides residents with the ability to pay taxes and parking tickets, apply for building permits and download police department forms.⁴⁴

Governments that are hesitant to move ahead alone may choose to partner with a private business in building their online capabilities. Kevin Curry, vice president and general manager of North American public sector at Unisys in Blue Bell, Pennsylvania, states, "Many agencies don't want to spend the time and money to build and maintain large, hosted applications and are looking for a public-private partnership. Integrators are being brought in to build the front end, and they recoup their costs by taking a percentage of the value of each transaction."⁴⁵ Governments may also want to consider pooling their resources through different types of cooperative agreements as a way to build their capacity.

Unfortunately, hardware and software needs will remain difficult to foresee and this will make purchasing decisions tricky. Local governments must continually reassess their functionality and storage capacity. Focused collaboration between the planning department with the information systems/data management department or division can help. According to Joel Lipkin, senior vice president at Government Technology Services, Inc., a Virginia-based government-sector integrator, "Reliability, compatibility and interoperability are key factors that these agencies [should] consider when it comes to system solutions."⁴⁶

Changing the Relationship Between Staff and Citizens

To a certain extent, online communication between government and the public puts the citizen in a self-help category not unlike modern gasoline stations and warehouse retail clubs. Therefore, local government employees will have to be schooled regarding how to help citizens before they go online (to explain how information can be accessed) and how to respond to follow-up questions. Employees need to be completely familiar with the operation and content of the government's website. They need to be able to deal with the diverse questions and comments that will come from individuals with widely divergent levels of expertise.⁴⁷

More substantively, local government must designate responsibilities for the upkeep of web-based materials. It is worth repeating that citizens will only use online resources if they are relevant and easily accessible. Such management requires the assignment of specific responsibilities. A chief information officer may be needed. Managers must identify those individuals who have the ability to monitor the quality and usability of online information and assure consistency with agency rules and regulations and government laws.

Generating and Maintaining Public Interest

A subset of citizens will maintain the pressure for expanded online services, but they will not give local governments all the guidance they need about how to best serve their citizens. A recent federal report argues that governments that continually monitor the perception of the public regarding technologies, internet access, and government service should experience greater success when they introduce new technologies to the public.⁴⁸ Government reform efforts that emphasize performance measurement and a results ori-

entation have familiarized local officials with the use of surveys, focus groups, and community meetings to solicit citizen input. Such methods can be used to ferret out citizen needs regarding internet applications and services as well. Of course, citizens can also be given the ability to give instant feedback on the website themselves. Internet use is voluntary. Citizens must choose to visit local government websites if e-governance is to become a reality.

Finally, it needs to be clear that local governments cannot drop previous service delivery options, like an interactive voice response system, the minute the online service version is available. Citizens want to choose how they interact with government. On the other hand, local governments cannot become slaves to public whimsy for advanced technologies and innumerable methods of access. Continual reassessment will be needed as local governments seek to grapple with the challenges that new technologies present.

Discussion

There is little doubt that public demand for e-governance will increase in the coming years. As more and more business is transacted online, lagging performance in the public sector will not be tolerated. This is true because the growth of technology will make using the internet easier and better and because the general public will become increasingly familiar with the online world. Eventually we will have a generation that does not even remember a time when the internet and related communications technologies did not exist.

Given these trends, it is prudent to consider how governments can move from their present—essentially offline state—into an online future. Drawing upon the existing literature, we developed a model that requires a stable environment, knowledgeable leadership, good communication, and skilled staff. We then outlined a number of implementation hurdles that need to be negotiated. Privacy, security, functionality, and equity are issues that must be thoughtfully addressed—perhaps well in advance of hardware and software purchases. Developing a cyber staff that can function effectively in this new kind of work place will be an ongoing struggle.

Some governments will be better able to meet these challenges than others. Some have more of the things needed to succeed. Those that lack effective leadership are going to have the greatest problems. Some of these governments are now waiting on the starting blocks without a plan. There is likely to be a great price paid for lack of initiative or indecision. As we have discussed, there are many possibilities for governments with the resolve to move ahead, even if they are small or strapped for cash. They can pool resources, contract out, partner with a private company, or just get off the dime by starting with something quite simple.

Government officials should be aware that initial pressure for e-governance will probably come from businesses that have become used to working at light speed. Local government spending patterns already suggest that this is happening.⁴⁹ This should not lead to the conclusion that e-governance is just about better contracting or permitting—it can also enhance citizenship. Authors like Tillett are optimistic about what e-governance can do for the public in this regard. He states, “The possibilities for advancing the relationship between citizens and government via web-based products and services are almost limitless.”⁵⁰ It is unlikely that they will clamor for such a relationship en masse, however. Governments must recognize the need to do a better job and move ahead with an e-governance initiative. Citizen support will follow.

In the coming years, we will see e-governance flourish. Some governments will see the growth of e-governance as an opportunity and move ahead quickly, and others will fall behind. Hopefully this chapter will help local governments to assess their situations and develop a solid plan of action.

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Response

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Professor Gregory D. Streib and Associate Professor Katherine G. Willoughby of Georgia State University in Atlanta have assessed the development and ultimate success of e-government as a means of providing service and information to the public via the internet and other technologies. In "Local Governments Becoming E-Governments: Getting the Sizzle, Avoiding the Fizzle," they do an admirable job of analyzing factors endemic to a successful e-government and evaluating barriers that may prevent such an effort from materializing.

Electronic government or e-government is the concept of providing many of the services and much of the information currently available at city hall or the county courthouse to the public on a 24/7 basis by utilizing technology. By making these services available to citizens, residents are spared the necessity of physically procuring these services or information at governmental offices. This is important because of the time demands placed on today's citizens, which may preclude visiting city hall between 8 and 5. The world wide web is the prevalent enabler of e-government, but other tools such as interactive voice response systems (IVRs) and interactive cable also suffice. Streib and Willoughby are champions of e-government as an effective means of making government more streamlined, accessible, and seamless; yet, they express disappointment at its slow pace of introduction into the mainstream of local government.

They suggest that the generic governmental abhorrence of change coupled with weak executive leadership has caused local governmental use of e-government to pale in comparison to the meteoric use of the internet by private entities. Obviously, the rise of the dot coms was driven by an insatiable desire for profit in contrast to a governmental objective of providing services and information as a public service. E-government will never be a profit center; rather it should be viewed as a means to maximize communication to the citizenry and to facilitate the seamless provision of services.

Streib and Willoughby expand on the theme of the lack of risk taking and the lack of a culture of innovation within public organizations as the major factors responsible for the paucity of e-government best management practices throughout the country. They do cite several examples of innovation, particularly the efforts of several municipal utilities in Georgia that would obtain legislation to allow public installation of fiber optic cable within city rights-of-ways so as to afford internet access to all citizens. This has been beneficial for economic development and quality of life issues for these communities. This suggests that many communities—because of size, location, lack of municipal utility ownership, or demographics—may have trouble attracting private investment to install the infostructure necessary for an e-government effort and will have to develop strategies to encourage investment in infostructure.

On a positive note, e-government has proven successful in the presence of the following factors: strong executive leadership; a climate for innovation and risk taking; a stable political environment; demand from the public for e-government; broadband services; and adequate resources in the form of training and hardware/software. The common denominator in all of these is strong executive leadership. Unless the manager or administrator stresses the importance of e-government as a means to improve communication and efficiency for employees and the governing body, the effort will wither

because of the tremendous long-term commitment that is necessary for the progress of an e-government.

There is no question that the aforementioned play a big role in the success of any e-government effort. I would add several others. Lenexa, Kansas, is a city of 43,000 located in the Kansas City metropolitan area; it has achieved national recognition for its innovative use of technology, allowing employees to work smarter and be more productive while providing quality service in an efficient, seamless manner. Some of the innovative uses of technology are: paperless agenda packets that can be downloaded to a citizen's computer, complete with all accompanying materials; the first on-line interactive comprehensive plan in the country; the ability to purchase animal licenses, business license renewals, swimming pool passes, class registrations, and other programs and services on-line; paperless traffic tickets; and crime data generated by Geographic Information Systems (GIS) and updated as crime reports are filed. In fact, the use of GIS will continue to become an integral part of e-government because it blends graphic images and information into an easily understandable presentation. These imaginative uses of e-government have occurred, in addition to the aforementioned factors, because of a selection and retention merit-based performance system that attracts and rewards highly skilled technical workers in all departments; intraorganizational use of complementary skill sets to develop new programs that cross departmental boundaries; reengineering of old processes that do not conform to a 24/7 environment; and the development of a citywide telecommunication strategy that encourages private utilities to provide broadband service throughout the community.

The reengineering of processes and development of a telecommunication strategy are paramount. The former chief information officer of Philadelphia once stated that he was instructed by the mayor to modernize the city's tax assessment and collection system, utilizing technology. When he learned that the system for appealing tax assessments had not been changed in a hundred years, he told the mayor, "You can't make a bad system work with good technology." By using an approach that combined changes in laws and processes with new technology, a system was implemented that has enabled Philadelphia to collect millions in back taxes. Lenexa has had to analyze current processes to ensure that its web page is kept up to date and to use a consistent style and format in its presentation of information. There is nothing more deleterious to an e-government program than outdated information and unclear navigation to links within the page itself. Content management software programs will make it easier to control the quality and ease by which content is posted to the web.

Lenexa, Kansas, adopted a policy that encourages broadband providers to build in the city's rights-of-way instead of erect barriers to their entry into the marketplace. Consequently, Lenexa is one of the few cities in the country where citizens now have access to two cable modem providers, which are available to almost every household in the community. Because of this effort, the *Kansas City Business Journal* dubbed Lenexa "Techropolis" in the Spring 2001 edition, highlighting its strategies to attract broad bandwidth providers and the resultant explosion of new jobs and businesses locating in Lenexa. In fact, this factor led *Site Selection* magazine to name the Lenexa Economic Development Council as one of the top twenty economic development organizations in the country in 2001, based on per capita creation of jobs and capital investment. Many companies that have recently relocated to Lenexa cite its web page and e-government programs as indicators of a leading edge community that values communication and ease of service delivery to business.

Streib and Willoughby whet our appetite for the potential of e-government to revolutionize the way cities transact business with the citizenry. Strong managerial leadership is a requisite for moving an organization forward in this endeavor. Managers will have to accept that e-government tends to flatten an organization because of citizen access to all employees and the intraorganizational teamwork necessary for success and will have to adjust their management styles accordingly. Public managers will have to be knowledgeable about issues concerning equal access to the internet; security issues regarding credit card transactions; and the allocation of resources to keep a viable e-government system current. In addition, today's children will place tougher demands on future local

governments to provide an easy, seamless way to obtain services and information. They will also constitute tomorrow's employee pool and will be attracted to organizations that employ innovative e-government programs, the implementation of which will require technical competency. E-government provides an opportunity to break down the labyrinthine perception of government and make it understandable, accessible, and relevant to the citizenry. City managers and administrators need to be leaders in making sure this happens.