

## CHAPTER SIX – The New Civic Space of E-Government: Dynamics of Change

This chapter explicates the contours and context of the citizen's encounter with government in the new civic space of the emerging virtual state<sup>1</sup> and the related implications of e-government for public administration practice and education. I begin with a discussion of the e-government public encounter then move to the normative and practice implications of e-government for public administration practitioners and scholars and conclude with certain prescriptions. The expressive, behavioral, and societal lenses are used to focus these discussions.

### The E-Government Public Encounter

We recall that the expressive lens perspective of the public encounter speaks to the ideas and values embedded in the architecture of web sites manifested through site design and organization. The systematic web site analysis and citizen reaction research highlighted the importance of normative (values) and aesthetic considerations to the presentation of professionally organized, easily accessible, coherent content and consistent value messages in government web sites. These collective considerations represent the contours or general character of the electronic public encounter. The context or environment of the public encounter is an equally important consideration.

The context of the public encounter, for the state portals and federal web sites examined in this dissertation, largely mimics that of e-commerce web sites. It is largely a customer-centric context as opposed to a citizen-centric. In the customer-centric context, the focus is on the transaction—the customer goes online to complete a specific activity. This transaction model is a simple proxy for a basic economic act, exchanging money for a product or service—the economic contract. The citizen-centric model also may include transactions. However, its underlying purpose is to both affirm and maintain the relationship between the citizen and his or her government—the social contract.

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<sup>1</sup> The term virtual state was introduced in Chapter One. Jane Fountain coined the term which refers to government that is organized increasingly in terms of virtual agencies, cross-agency and public-private networks, and whose structure and capacity depend on the Internet and web.

In Chapter Two I discussed how e-commerce sites and information technology companies were the seedbed of present day e-government web sites. I also noted that the transaction fees earned by private companies contracted to host e-government web sites provided the means for government at all levels to rapidly establish an e-government presence. This public and private partnership has benefitted both parties and the American public. However, as in any partnership, there are risks.

Increasingly, government web sites, in particular state portals, are operated and maintained by private sector firms. Eighteen of the fifty state portals are operated by one firm: NIC of Overland, Kansas<sup>2</sup>. E-commerce firms such as AOL<sup>3</sup>, MSN<sup>4</sup>, and Yahoo<sup>5</sup> are also either hosting or providing links to both state and federal government web sites (Eggers, 2002). These developments have positive as well as potentially negative consequences for e-government.

Mauro Regio, a Microsoft corporation strategic thinker, has predicted that: “Eventually, the vast majority of public services delivered electronically won’t be accessed on government Web pages, they’ll be provided through indirect channels (Eggers, 2002, p.1).” The indirect channels are those of existing commercial and entertainment web sites which would constitute the backbone of what Regio refers to as e-government service networks.

Regio’s prediction is based on three assumptions. He assumes that (1) government web sites have failed because only a relatively small percentage of citizens visit them to conduct business, (2) that only extensive and costly advertising campaigns initiated by already cash-strapped government agencies could increase citizen traffic to the sites, and, (3) that embedding

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<sup>2</sup> The NIC web site can be accessed at <http://www.nicusa.com/html/index.html>. The company notes on its home page that it hosted 77 million transactions in 2002 on the e-government portals it hosts.

<sup>3</sup> AOL is the abbreviation for America Online the largest Internet Service Provider in the United States.

<sup>4</sup> MSN is the abbreviation for Microsoft Network; Microsoft’s Internet Service Provider operation. An Internet Service Provider or ISP provides a connection to the Internet for individuals who subscribe to the service. The site can be accessed at <http://www.msn.com/>.

<sup>5</sup> Yahoo is an e-commerce company that began operation as an Internet search engine but which has evolved in to a major provider of content and web site hosting enterprise.

government services in existing high-volume commercial and entertainment web sites already frequented by customers (citizens) is the more obvious, and less costly solution.

Regio's solution consists of embedding government transactions into the existing service and transaction offerings of private service providers such as banks, insurance companies, trade associations, and major Internet Service Providers (ISPs) such as AOL. AOL's Government Guide, averaging 20 million visits a month, is already touted as the most popular web site for government information. James Vaughn, who runs the Guide, espouses a philosophy similar to that of Regio. Vaughn argues that government's role should be simply to assure citizens can access e-government services online (Eggers, 2002).

Regio and Vaughn's vision of e-government is alternately one in which the government portal becomes one channel among many or one in which e-government is merely another product-line offered on commercial and entertainment web sites. The societal and behavioral implications of these two perspectives merit examination.

At the societal level, the availability of multiple channels through which individuals can access government information and services makes these activities even more convenient and possibly more efficient and cost effective. This is a positive benefit. Moreover, the wholesale shifting of routine government service delivery to commercial and entertainment web sites could conceivably also reduce existing government web site expenditures. However, there are also risks to consider such as the potential for further blurring the distinctions between public and private responsibilities as well as the expressed ideas and values that underpin government. Additionally, not all government services are routine. A majority of government services, which we sometimes take for granted, require extensive human interaction such as fire and police, public health, social services, and education.

The e-government service network proposal constitutes a de facto deregulation of government web sites.<sup>6</sup> A pessimist might argue that market forces could primarily determine what

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<sup>6</sup> The regulation of federal government web sites is accomplished through the combination of public laws enacted by Congress, Executive branch policy directives, and related Agency/Department policy and procedure. Public Law

government transactions and services are offered on the proposed e-government service networks based on demand and profitability as opposed to statutory requirements and or legislative mandates. On the other hand, extant federal law, when combined with heightened concerns for controlling, coordinating, managing, and safeguarding federal government information, would probably mitigate any radical privatization of federal government web sites. Similar circumstances and concerns at state and local government levels would also likely mitigate sweeping privatization of these sites as well. One result of the September 11<sup>th</sup> attack is that government at all levels have reviewed the online information they provide and in some cases either removed it or limited access (Schelin, 2003). Other concerns with an e-government service network approach are the potential for service delivery fragmentation and additional management complexity in supporting the public encounter across innumerable sites.

The heralded citizen's one-stop service and information destination of the state portal or that of the federal government's FirstGov portal could be replaced by a wide array of disparate venues providing services tailored to trade association members, banking customers or other specific groups—as opposed to the general public. A related concern is what happens to the normative—value considerations of equity, privacy, publicness, and participation attached to the e-government web site encounter when that encounter is embedded within commercial and entertainment web sites?

Commercial and entertainment web sites may, or may not, adequately address the value considerations raised in this dissertation. Their distinctly different organizing principles point to the latter possibility. After all, the value framework of these sites is primarily that of the corporation in which profit generation and related concerns are focused on promoting a particular, as opposed to a general welfare. One might also speculate how long state portals would continue operation in an expanded e-government marketplace, if portal transaction and revenue volumes substantially declined. A downward operation spiral precipitated by declining customer traffic and transaction revenue leading to site failure could lead to a scenario somewhat

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107-347 or the E-Government Act of 2002, the Bush II administration's management agenda for e-government, and the 1998 amendments to Section 508 of the Rehabilitation Act which established electronic and information technology accessibility standards for the disabled are regulation examples. Regulation of state and local government web sites is accomplished through a combination of state laws, local ordinances and resolutions, and applicable federal statutes such as the Rehabilitation Act.

analogous to that experienced by the dot.com sector in the wave of online business failures of the late 1990s. This is a relevant concern with respect to the dot.com sites in which government services are, or may be, embedded.

One unfortunate consequence of the widespread failure of dot.com enterprises in the late 1990s was that expiring dot.com domain names<sup>7</sup>, including those registered to public entities, were frequently intercepted by less savory web enterprises. Thus, the “address people have come to trust, as an extension of their government, can suddenly become home to unwelcome graphic surprises (Taylor, 2002, p. 4).” This is unlikely to occur with traditional dot-gov and state.us domain names which are registered in perpetuity to the jurisdictions they identify.

Paul Taylor has argued that state portals are the people’s space. I would also add federal web sites to Taylor’s definition of the people’s space. Taylor has also suggested that “the state portal may be the only seat of government that many citizens ever know” and that people who maintain the portal may have more direct influence on the citizen’s experience with government than the elected official (Taylor, 2002, p. 5). If so, this electronic public encounter is “one of the most crucial aspects of modern government,” as a group of scholars once wrote about the physical public encounter (Goodsell, 1981).

If we, like Taylor, view government web sites as the people’s space then we should carefully examine both the benefits and risks of increased privatization. Privatization of e-government services is neither inherently good or bad public policy. It is, however, an extremely complex proposition with profound consequences that will continue to shape and redefine the relationship between citizens and their government. Jane Fountain speaks to this complexity and the related consequences in drawing the distinction between economic incentives and government purpose.

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<sup>7</sup> An address of a network connection in the format that identifies the owner of that address in a hierarchical format: server.organization.type. For example, www.whitehouse.gov identifies the web server at the White House, which is part of the U.S. government. Domain names are administered by the Internet Corporation for Assigned Names and Numbers (ICANN). ICANN is a private, nonprofit corporation to which the United States government in 1998 delegated authority for administering IP (Internet Protocol) addresses, domain names, root servers, and Internet related technical matters, such as management of protocol parameters (port numbers, protocol numbers, and so on). Source: *Microsoft Press® Computer and Internet Dictionary, 4th Edition* © & (P) 2000 Microsoft Corporation.

Economic incentives in the private sector generate rapid, innovative solutions and applications that should not be ignored by government actors. Yet information architecture, both hardware and software, is more than a technical instrument; *it is a powerful form of governance. As a consequence, outsourcing architecture is effectively outsourcing policymaking* (italics added). Governments must be careful, in their zeal to modernize, not to unwittingly betray the public interest (Fountain, 2001, p. 203).

Expanded citizen access to government services and information, facilitated by embedding both within existing commercial and entertainment channels, may appear a priori to be a beneficial development. And, in the short-term, it may very well be. Yet, as Fountain has cautioned we must also reflect upon the possible long-term risks of such a conflation between—business aims and government purposes—and the inherent normative contradictions.

Looking through the behavioral lens, do we really want government information and services transformed into just another commercial or entertainment choice and, more importantly—do we want citizens to interact with their government on that basis? Do we want government to be invisible, neither seen nor heard? Can we afford to adopt the prescription offered by Andrew Pinder, the United Kingdom’s e-government and e-commerce policy official, who argues that “People don’t want to have government, they want services, so let’s take government out of their face (Eggers, 2002, p. 11).”

I view the public encounter as both an expression and affirmation of the political authority, ideas, and values of the regime. I also view it as an opportunity for citizens to engage their government on a variety of issues from the routine to the unusual. From my perspective, private or public actions which blur or undercut the relationship between citizens and their government—ultimately undermine the regime itself. These views are not unique. They have been articulated, in part, by other scholars and theorists who have examined e-government, the public encounter and the citizen’s relationship with government (DiMaggio, Hargittai, Neumann, & Robinson, 2001; Fountain, 2001b; Fountain, 2001a; Goodsell, 1981; Rohr, 1989; Schelin, 2003; Simon, 1997; Taylor, 2002; Wamsley et al., 1989).

## Normative Implications

Government web sites are much more than the efficient, politically neutral, embodiment of Michael Inbar's (1979) vision of the computerization of so called routine bureaucratic transactions I discussed in Chapter 2. Government web sites, as conceptualized in this dissertation, constitute another brick, albeit a virtual one, in the regime's overall values architecture. The United States Declaration of Independence and Constitution provide the foundation. Government web sites also paradoxically provide an intimate, yet impersonal, perspective on the institution. The architecture of a government web site, in very much the same way the institution's physical presence does, serves as a carrier of the institution's normative and regulative structures and activities (Scott, 1995, p. 33).

As we have seen, in addition to providing citizens convenient access to information and selected services, government web sites also project the presence, purpose, and mission of an institution or organization—its values. These values, efficiency excluded, are also a proxy for the essentially normative practice of public administration Dwight Waldo outlined more than half-a-century ago (Waldo, 1948). Efficiency is not, and cannot, be a value in this schema because “it operates in the interstices of a value system; it prescribes relationships (ratios or proportions) among parts of the value system; it receives its ‘moral content’ by syntax, by absorption” (Waldo, 1948, p. 202). Thus, efficiency is useful only within a framework of practice underpinned by consciously held values.

The normative dimensions or values expressed in the architecture of e-government web sites examined in this dissertation may be largely characterized as emergent or latent based on preliminary observations flowing from this research. This is not surprising given that both government web sites and e-government are relatively new concepts having emerged just within the past ten years as a byproduct of the confluence of e-commerce, reinventing government reform efforts, and the Clinton administration's National Performance Review project.

The trend toward increased privatization of government web sites and related proposals for embedding government transactions in existing Internet based commercial and entertainment

channels have significant normative implications for citizens, institutions, and governance beyond those already raised. We now turn to a discussion of those implications.

The concept of a “digital divide,” or the gap between the information technology haves and have-nots, has been a recurring policy concern since the Internet evolved in the 1990s into a major communication medium and information tool (Coates, 2001; DiMaggio et al., 2001; Garson, 2003; Lenhart et al., 2003; Mackenzie & Wajcman, 1999; Schwartz, 1999; Sunstein, 2001; Tapscott, 1997; Thomas & Streib, 2003; Wilhelm, 2000). The breadth of digital divide concerns have perforce also subsumed e-government as well as encompassing the three lenses.

Employing the expressive and societal lenses we can discern the effects of digital divide concerns. The expressive lens highlights the equity concern or the question of inclusive access to web sites while the societal lens points to the potential disadvantages faced by those citizens who do not have access to government information and services. Groups which tend not to have access are the disabled, lower-income households, households with low levels of overall education, Blacks, and Hispanics. Lack of access for these groups results in fewer options for interacting with government. A situation that could worsen as additional government information and services are both shifted to traditional web sites such as state portals and/or embedded in commercial and entertainment web sites. Lenhart et al. (2003) noted in a study of the digital divide that only 49% of American adults had Internet access and that disabled Americans had among the lowest levels of Internet access (Lenhart et al., 2003, pp. 3, 5-6). The study also examined the reasons why Americans chose not to use the Internet.

The Internet non-users expressed reasons and concerns mirrored those addressed in this dissertation and scrutinized through the expressive and behavioral lenses. Specifically, 43% of non-users indicated that concerns over online criminal activity such as identity theft (a privacy concern) and unsavory content kept them offline. Overall, 40% of non-users also thought that the Internet was confusing and hard to use. Poor English language skills and literacy problems were also given as reasons for non-use. A U.S. Department of Education national adult literacy survey estimated that up to 23% of the U.S. population struggled enough with literacy that they



had difficulty completing everyday tasks such as totaling an entry on a deposit slip or identifying specific information in a brief news article (Kirsch, Jungeblut, Jenkins, & Kolstad, 2002).

The preceding statistics are important measures of e-government's accessibility and lack of accessibility by the general public. They are also indicators of why normative considerations such as equity, privacy, publicness, and participation, although expressed and present in e-government web sites, need to be both expanded and improved. The same might be said for business web sites and in particular for those commercial and entertainment sites that have begun to bundle and embed government services for their customers. Fountain highlighted the negative externalities that might arise from a preferred customer approach to e-government service delivery arguing that "enacting technology with a 'customer focus' and without conscious efforts to reduce inequality may exacerbate the digital divide in ways that extend beyond simple inequality of access" (Fountain, 2001, p. 205).

The values of equity, privacy, publicness, and participation were weakly expressed in the e-government web sites examined in this dissertation. This portion of the people's civic space requires additional construction in order to facilitate broader citizen access. There just aren't enough doorways and windows, and that is a problem. There is growing evidence that citizens who are unable to initiate an e-government public encounter, for digital-divide reasons or because of a lack of hardware, software or Internet access, are at a distinct disadvantage. They, in fact, may increasingly be unable to obtain routine government information and services, participate in certain civic activities, or otherwise derive social and economic benefit from an effective use of e-government as high income/education users have (Civille, 1995; Grossman, 1995).

Government web sites fulfill a variety of important tasks by making access to government information and services available online to citizens. Citizens who can access these sites are able to interact with government almost anytime and anywhere, cost savings are realized from the computerization of routine transactions, and government appears more open and efficient. However, for those without Internet access such as the poor, the disabled, and the marginally literate, e-government is just an idea yet to be experienced. Government institutions have a

responsibility to serve not just those who can afford to go online, but the general public as a whole which directly or indirectly funds and supports the institutions. Living up to this responsibility in the emerging virtual state has profound implications for institutions as well as practitioners.

### Practice Implications

Fountain (2001) has argued, in part, that the development of web sites facilitating the e-government to citizen public encounter is not the major challenge facing government. The major challenge confronting government is how to both reorganize and restructure the institutional arrangements in which the information and services are embedded. To which I would add the ever present public administration challenge of balancing the tensions of efficiency, bureaucracy, and democracy—within the evolving form and functions of e-government.

As we have seen, the web enabled e-government public encounter does not involve a one-on-one interaction with an official physically located in an institution of government housed within a public building. It involves a one-to-many computer mediated interaction enabled by software located on a government Internet web page which presents a limited array of services and broad information options for citizens to select. This reality flows directly from the implementation of public policy designed to improve government service delivery to citizens through the judicious use of information and communication technologies—primarily the Internet. These virtual efforts have unarguably been successful. However, success of any kind always has a price and is usually accompanied by unintended consequences. We turn to a selective consideration of some of these.

I consider myself both practitioner and academic. Prior to returning to the university setting to pursue the doctoral degree, I worked as a health care administrator in a very large California county health care system. I recall late in the 1980s when both computer e-mail and telephone voice mail systems were introduced into my department as cost savings measures. Most people were pleased to have access to the technology but were also anxious. They were pleased because other departments were already using it and they did not want to be left out. They were anxious,

as was I, because use of the technology required training and a new way of approaching daily routines. Little did we know how much both our routines and approach to service delivery would change. Employees' creative use of voice mail and e-mail provided hints which I explore using the behavioral and societal lenses.

I began to notice that I had difficulty reaching the managers I supervised and others as well by phone. Rather than answer an incoming phone call most people would let their calls ring-through—go directly to their voice mail box. When I asked one individual why he did not answer the phone when he was clearly in his office, he responded along the lines of: “I find that I am able to get more work completed if I am not frequently interrupted by phone calls.” The rationale and behavior in his case made some sense given his limited contact with the public. However, it made no sense when our office receptionist and some other frontline service delivery employees attempted to institute a similar approach. We subsequently instituted policy and procedures which outlined the appropriate use practices for voice mail consistent with our mission of serving the health care needs of the medically indigent in our community. E-mail presented a similar challenge.

Prior to e-mail, the written memorandum, report, and or personal conversation had served as the primary means of communicating information, instructions, and policy initiatives. In the course of a workday, I normally would have to review and act on four or fewer memoranda, a handful of reports, and engage in a dozen or so business conversations. I like to think of these pre- e-mail methods as deliberative in character. E-mail significantly changed this arrangement.

The type-and-send, instantaneous delivery and distribution communication mode e-mail represented posed a number of challenges. Over time, my subordinates and colleagues, increasingly chose to communicate with me, and among themselves, primarily by e-mail. The initial daily trickle of e-mail I had to review and respond to quickly developed into a tidal wave as people increasingly felt obliged to send e-mail on even the most mundane of matters, such as an absence from work. Many days I had to wade through 100 to 150 e-mails, 95% of which contained typing and grammatical errors and should never have been sent. Most of them dealt with matters that more appropriately could have been resolved by face-to-face conversation with

myself or their co-workers. I distinctly recall showing up for an afternoon meeting with two other colleagues only to find out fifteen minutes later that the meeting had been canceled—by e-mail—an hour prior to its scheduled start. When I telephoned the person who scheduled the meeting to discuss the lack of sufficient notification, I was told by that person: “I had my secretary send an e-mail;” as if somehow the act of sending an e-mail was instant notification. I suggested that the telephone was still a viable means for communicating time critical information.

On another occasion in the late fall I happened to notice that an important e-mail I had been expecting arrived with an odd date, the beginning of the year. I contacted the person who sent the e-mail to advise them of a problem with their system. As it turns out, the battery powered internal clock in their computer no longer functioned and as a result all their outgoing e-mail had the wrong date assigned to it. Who knows how other people reacted to this problem or what unintended consequences obtained. Large e-mail systems, such as Virginia Tech’s, and individual users, frequently establish automatic purge dates to remove old e-messages from the e-mail server or their hard drive.

### It Is Still All About the People

The preceding anecdotes highlight just a few of the unintended consequences emerging from technology adoption. The price the organization, in this case my department paid, was that of declining quality of organizational communication and diminished personal interaction. To be sure the public may also have changed its view of the organization, if citizen encounter efforts were routinely directed to either e-mail or voice mail systems. However, the possible effects of these systems and in particular e-government web sites on administrative discretion is as salient an issue, if not more so. We recall John Rohr’s description of administrative discretion as:

The discretionary activity of bureaucrats in which they advise, report, respond, initiate, inform, question, caution, complain, applaud, encourage, rebuke, promote, retard, and mediate in a way that has an impact on what eventually emerges as ‘agency policy’ ((Rohr, 1989, p. 36).

Rohr's operational definition of administrative discretion draws a clear nexus between its exercise and policy formulation. Fountain argues, as noted earlier, that information architecture is a powerful form of governance and that as a result outsourcing architecture is effectively outsourcing policymaking. If we accept Rohr's definition of administrative discretion as given, then outsourcing information architecture (e-government) is also an outsourcing of administrative discretion. Neither circumstance bodes well for either the practice of public administration or the sustainability of regime values.

Revisiting Michael Inbar's continuum of bureaucratic decision-making, we can see the obvious flaws in its underlying logic. The policy making position on the continuum corresponded approximately with upper level management within an organization while the routinized implementation, or routine transaction level, corresponded with line-staff. Inbar argued that value premises and goal setting, or administrative discretion, was essential at the upper management level and irrelevant at the routinized level. Rohr's definition of administrative discretion and Fountain's description of the effects of e-government outsourcing indicate a unified continuum model of administrative discretion is more appropriate. In other words, administrative discretion is exercised by individuals throughout an institution regardless of their relative position within the hierarchy. While hierarchy may determine the net affect of their exercise of administrative discretion, it cannot eliminate it altogether.

I have argued that e-government web sites are in effect re-presentations or virtual progeny of the institutions they present. And, I have argued that e-government web sites are infused with values—values which also underpin the normative framework of the practice of public administration. Agreement with either, or both, of these propositions makes it abundantly clear that the distinction drawn between traditional-government based in physical space and that of e-government based in virtual space—is a false dichotomy. It is a distinction that largely adds nothing to our overall appreciation of our government but rather is one which has allowed some corporate opportunists and government bashers to diminish its relevance and undermine its legitimacy.

The implementation and use of earlier technologies in government has not resulted in our redefining government in that technology's image. We did not refer to telephone-government or typewriter-government or facsimile machine-government. That is because we knew, and we still should, that technology of any sort is merely a means for extending our human capacity to interact with each other and our environment. Marshall McLuhan said it best when he observed that "the 'message' of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs" (McLuhan, 1964, p. 24). Government is a quintessential human affair and one of extraordinary complexity in the 21<sup>st</sup> Century. The challenge faced by citizens, practitioners, and government institutions is how to transcend the false government/e-government dichotomy and effectively function in this complex environment.

Fountain (2001) observed that development of e-government web sites for handling citizen encounters or transactions is a minor problem when viewed within the overall context of the institutional reorganizations and related restructuring of institutional arrangements—the bricks and mortar—necessary to support those transactions. The dedication, experience, institutional knowledge, and hard work of bureaucrats at all levels of government will be required to successfully effect these complex changes. Consultants and other experts will undoubtedly have roles in this process. However, I believe the process can only be effectively sustained and managed by bureaucrats/practitioners who know how to exercise administrative discretion judiciously to navigate the political reefs and legislative shoals that define the institutional environment. Bureaucracy and bureaucrats, contrary to some wishful thinkers, will not be banished from government because: "Although the Internet and the web provide superior communication and coordination capacities, they do not replace hierarchy" (Fountain, 2001, p. 48). These are still, and will likely remain essential components of government of the 21<sup>st</sup> Century and beyond. We turn now to the consideration of selected public administration prescriptions.

## Prescriptions

Public administration education, practice, and research have largely ignored the topics of computing and information and communication technology and, related considerations of their

impact on the field. Northrop noted in a review of three highly respected public administration journals and six textbooks that the topic of computing was barely treated or mentioned (Northrop, 2003). Information and communication technology topics including government Internet use have received similar scant attention within the field with the notable exception of recent works by some scholars (Fountain, 1999; Fountain, 2001a; Garson, 1998; Garson, 2003; Kakabadse, Kakabadse, & Kouzmin, 2003; Kamarck & Nye Jr., 2002; La Porte, Demchak, & de Jong, 2002).

Public administration practitioners surveyed for their recommendations on computing education in MPA programs consistently stressed the need for coursework in computer literacy and hands-on knowledge of specific applications (Northrop, 2003). Indeed, most MPA programs such as those of the Center for Public Administration and Policy at Virginia Polytechnic Institute and State University and that of the Askew School of Public Administration and Policy at Florida State University offer relevant coursework. Both of these institutions also offer their MPA students rudimentary training in the construction of web sites and an exposure to e-government. These educational offerings provide a baseline of computer literacy and an introduction to e-government for MPA students. However, these offerings do not go far enough in addressing the skills and knowledge future and current practitioners, as well as public administration faculty, will need to effectively address the larger institutional challenges posed by the e-government service delivery component.

Education of public administration practitioners should include additional coursework in the areas of information architecture, information technology and organizational transformation, and on e-government models and theory. These offerings could be bundled within a required MPA course spanning one or two semesters or quarters. They could also be approached as a capstone course at the Ph.D. level. Near-term these course offerings could be facilitated through course collaboration with other university faculty specializing in the areas. Public administration faculty however should also move to acquire the requisite knowledge base for incorporating consideration of these issues within existing coursework as appropriate. This recommended approach, if adopted and sustained, could facilitate creation of a public administration education and practice that (1) is able to address the broader theoretical issues and practical operational

implications of information and communication technology upon government institutions, (2) elevate consideration and study of the normative implications to governance of this technology within the discipline, and (3) help redefine and redesign existing institutional arrangements for managing information and communication technology.

The field and profession of public administration can more aggressively address the broader theoretical issues and practical implications of information and communication technology upon government institutions and governance by initiating the following actions. Professional symposia are useful in highlighting the importance of issues within a field while also providing a forum for their in-depth examination and discussion. Both public administration scholars and practitioners should encourage convening of symposia on e-government and e-governance in established public administration journals. Heightened awareness and ongoing consideration of the issues can also be achieved by establishing an American Society for Public Administration (ASPA) e-government and e-governance section. ASPA has a Science and Technology section which members may join. However, the focus of the section is overly broad and thus does not specifically focus on either e-government or e-governance issues. These issues are having a profound impact on the way in which institutions and organizations function and the way in which citizens perceive government. At the academy level, the National Association of Schools of Public Affairs and Administration (NASPAA) should begin to consider incorporation of accreditation criteria that includes curricula coursework in communication theory, information design, and/or instructional message design. This approach would both institutionalize and elevate consideration of these issues within the field and profession.

I am aware that there are those in the field and profession who will argue that what I have recommended is not needed because of the plethora of university centers and institutes, existing publications, and emerging literature within public administration and political science on e-government and e-governance. These efforts, however, as Fountain (2001) observed, have not addressed the practical operational implications of information and communication technology upon government institutions. Moreover, the field and profession of public administration must



have its own voice on these crucial issues which have and will continue to affect the normative dimensions of public administration.

Institutional arrangements for managing information and communication technology are, by and large, still centralized and hierarchical. Responsibility for managing information and communication technology is generally functionally located in a division or department headed by a chief information or technology officer. This anachronistic institutional arrangement is a carryover from the era of mainframe computing operations which sought to tightly control access to a costly and limited resource at the time—computing power. Advances in computer and network technologies, the diffusion of the Internet, expanded employee computer operation knowledge, and dramatic reductions in overall computing costs obviate use of the centralized/hierarchical model. The ever increasing complexity of information and service delivery through both traditional physical-space based methods and virtual means requires an institution-wide approach with accompanying levels of diffused responsibility and accountability. Institutions must both redefine and supplant their existing centralized institutional arrangements for managing information and communication technology, if they are to succeed in integrating their physical and virtual components. This can be accomplished in part by encouraging organization-wide learning, effective technology enactment, and organization-wide innovation.

Two competing visions of IT exist and both have profound consequences for public administration education and practice. Neither vision is new. The first vision views IT as a tool of coercive control used to deskill and alienate workers and to question the legitimacy of existing governance practices. The second perspective is that of IT as a tool for enabling greater discretion, creativity, and as a complement to human capacity. As I have shown, these competing visions can be found in journal, magazine, and newspaper articles. They also can be found within the Bush II Administration's management agenda and in the information and communication technology policy proposals of public and private entities. Public administration education and practice cannot afford to ignore the threats posed by the first vision nor be absent or passive in the pursuit of the second.

By their very nature, web sites are the ultimate ephemeral creation. The bits-and-bytes constituting the software which underpins their existence are inextricably tied to the presence, or absence, of electrical power. These web sites, and e-government as a whole, disappear when electrical power is interrupted as evidenced by the massive August 2003 electrical grid failure that left parts of the Midwest and Northeast in the dark. However, the dedicated men and women who represent the human face of government are there for us—both before and after the lights go out.

The bricks and mortar that house our institutions of government and the values that give them purpose are not ephemeral—they are constants in an otherwise chaotic world. They are the ties that bind us as a polity and nation.