E-government has emerged not merely as a specialization in public administration, but as a transformative force affecting all levels and functions of government. This volume, written by a mix of practitioners and researchers, provides an overview of the management challenges and issues involved in seeking a new form of governance — digital government. An initial introductory section presents the hopes for e-government and outlines its history in the United States and globally. Section II, “The New Face of Government,” examines FirstGov, the premiere example of e-government and surveys its political implications. Section III, “Issues in Digital Governance,” discusses such management challenges as privacy rights, e-procurement, e-commerce, and ethics in e-government. Section IV, “Preparing for Digital Government,” discusses data warehousing and related prerequisites for e-government, including the education and training of the public service. Finally, Section V, “The Future of E-Government,” discusses the digital divide, citizen participation, and factors that will determine the eventual success or failure of the e-government model.

INTRODUCTION

In “The Promise of Digital Government” Garson notes that e-government advocates promise that not only will e-government bring the convenience of online transactions, it will reverse citizens’ disaffection from government, create dramatic savings, and reinforce rather than erode traditional American freedoms and liberties. E-government, however, is better thought of not as a revolution but as what it is: an attempt to bring the e-business model into the public sector. A component-by-component examination of the e-business model shows that it is fraught with problems, challenges, and limitations as well as opportunities. The promise of digital government will be fulfilled only by a new generation of public managers who are generalists, not technocrats, capable of integrating the disparate fields of consideration that are necessary aspects of the vision of e-government as whole.

In “A Brief History of the Emergence of Digital Government in the United States,” Relyea and Hogue outline the evolutionary progression of information technologies from the printing and distribution of Senate and House journals in 1813 down to the e-government services of today. The authors show the impact of the Privacy Act of 1974, the Computer Security Act of 1987, the Electronic Freedom of Information Amendments of 1996, and other pieces of legislation pertinent to fashioning the proper management
of information technologies and the systems they serve, their protection from physical harm, and the security and privacy of their information.

Forlano, in “The Emergence of Digital Government: International Perspectives,” presents an overview of the extent to which e-government has been adopted internationally by reviewing major comparative studies and case studies by international organizations. The characteristics of the five stages of e-government (emerging, enhanced, interactive, transactional, seamless) are outlined with international examples of innovative practices and potential obstacles. She concludes that currently, adoption of e-government strategies worldwide is varied, but many countries are making rapid progress in implementing their strategies.

THE NEW FACE OF GOVERNMENT

In “Portals and Policy: Implications of Electronic Access to U.S. Federal Government Information and Services,” Diamond Fletcher evaluates the emerging electronic “portal” model of information and service delivery to U.S. citizens, businesses, and government agencies. The portal model is being used as a technology framework in the U.S. federal government to carry out the electronic government strategies set out in the President’s Management Agenda for 2002 and the subsequent 24 electronic government initiatives included in the Budget of the United States Government for 2003 and the E-Government Strategy. FirstGov.gov is the official federal government portal for all information and services delivered by the federal executive agencies. The legal and organizational framework for FirstGov, based on an in-depth case study, is presented and evaluated as a model for future electronic government initiatives.

Franzel and Coursey, in “Government Web Portals: Management Issues and the Approaches of Five States,” discuss further web portals as the dominant organizational motif for e-gov service delivery. To date, most reviews of government portal experiences focus on the types and technical sophistication of delivered services as well as design issues, such as usability. Management issues, like commercialization and centralization, have received relatively little attention. The authors define and argue for a more management-oriented perspective. Several major issues are explained and then the experiences of five states are used to demonstrate how they present a different view of portal strategies for researchers.

In “The Organizational Culture of Digital Government: Technology, Accountability & Shared Governance,” Allen and her associates examine the characteristics of government organizations that influence their capacity to employ information technology (IT) in a strategic manner such that it assists them in their quest to meet the governance challenges they face. They explore the organizational factors, architectural and cultural, that impede large government departments from moving beyond the adoption of IT as a mere instrument that assists the execution of routine tasks in the traditional way and move into new forms of governance that alter the relationships between individuals and units within the organization and between the organization and its external environment. Our objective is to provide a useful framework for the analysis of the barriers to, and potential catalysts of, an IT-mediated transformation of the governance of large government departments.

In “Political Implications of Digital Government,” Baker and Panagopoulos show that while citizen participation-driven e-government is, in theory, a desirable objective
of government, it is complex on a variety of dimensions. From a design standpoint, considering the implementation aspects of access, and awareness; from a baseline assessment of what has been implemented to date empirically; and in terms of a meaningful design of responsive policy. Much of the observed variations in e-government applications is still descriptive in nature, and given the rapidly emerging technological and political ramifications is not unexpected. Panagopoulos continues these themes in an essay on “Consequences of the Cyberstate: The Political Implications of Digital Government in International Context.”

**ISSUES IN DIGITAL GOVERNANCE**

Mullen, in “Digital Government and Individual Privacy,” shows how the growth of the Internet and digital government have dramatically increased the Federal government’s ability to collect, analyze, and disclose personal information about many private aspects of citizens’ lives. Personal information, once available only on paper to a limited number of people, is now instantly retrievable anywhere in the world by anyone with a computer and an Internet connection. Over time, there has also been a declining level of trust by Americans in government, and currently, many perceive the government as a potential threat to their privacy. Given these forces at work in our society, one should not be surprised to read the results of surveys that show privacy as a top concern of citizens in the 21st century. Privacy issues discussed in this chapter include challenges regarding (1) protecting personal privacy; (2) ensuring confidentiality of data collected; and (3) implementing appropriate security controls.

In “E-Procurement: State Government Learns from the Private Sector,” Krysiak and his associates examine the effect of leveraging and integrating the power of the Internet as a tool in the total procurement process and its relationship to the supply and demand for goods and services. This work will be of interest to both informed and uninformed readers who wish to broaden their understanding and the effect of e-procurement within the process of government purchasing. The chapter begins with a discussion of legacy systems and past practice purchasing methods. It is followed by sections on public sector versus private sector business practices, business models for e-procurement, culture changes, legislative changes allowing for adoption of e-procurement and advisory committees. A case study of eMaryland Marketplace, the State of Maryland’s e-procurement portal, is discussed with particular attention given to theoretical use versus “real life” experience associated with implementing an e-procurement system. Finally, recommendations are made for other state or local jurisdictions that are considering implementation of e-procurement.

Stowers, in “Issues in E-Commerce and E-Government Service Delivery,” examines three issues emerging in the fields of e-government service delivery and e-commerce — the need for and a potential structure for performance measures, the heightened need for security awareness around e-government and e-commerce, and the need for e-government web design centered on usability. Beginning these discussions are some basic definitions, a review of the current literature on e-government and a discussion of the stages of e-government development is undertaken. The chapter concludes with a discussion of a future research agenda in e-service delivery and e-commerce.

In “Digital Government and Criminal Justice,” Holland outlines the history of digital government in criminal justice starting with the Johnson Administration’s find-
ings concerning automation in its report “The Challenge of Crime in a Free Society,” the development of the national criminal justice network, and the creation of SEARCH Group, a consortium of states that led the effort to create computerized criminal histories of individual offenders.

Richardson, in “Digital Government: Balancing Risk and Reward Through Public Private Partnerships,” notes that the modern focus on the application of business principles to the running of government is unique due to an escalated emphasis on divesting the public sector of as many service provision responsibilities as possible. This divestiture is being accomplished through an array of arrangements alternatively described as privatization, contracting out, outsourcing and public/private partnerships. There are three fundamental challenges to this process: (1) defining those responsibilities which cannot and should not be turned over to the private sector; (2) ensuring that such arrangements balance both the risks and rewards between the parties involved; and (3) getting the best deal for the public. This chapter focuses on the second point: achieving a reasonable balance that should, if implemented successfully, result in that elusive “best deal.”

Finally in this section, Anderson in “Ethics and Digital Government” considers the high costs to digital government of inadequate ethical choices and reviews the role of ethics in government generally. While codes of ethics may not go far toward resolving ethical challenges, they provide bases for ethical discourses and embody key ethical principles. Selected principles from the Code of Ethics of the Association for Computing Machinery (ACM) are applied to contemporary ethical issues in the context of digital government. In the rapidly evolving environments of digital technology, it is impossible to anticipate the leading-edge ethical issues; however, there are solid ethical or moral imperatives to use it working toward resolution of the issues.

PREPARING FOR DIGITAL GOVERNMENT

In “Data Warehousing and the Organization of Governmental Databases,” Harper outlines how data warehousing is a technology architecture designed to organize disparate data sources into a single repository of information. As such, it represents a strategy for creating the architecture necessary to support the vision of e-government. Data warehousing enables a new type of “decision intelligence” by providing access to historical trend data, typically difficult to retrieve through operational database systems. Government data warehousing is complex, expensive, and often fraught with data privacy and security issues. E-government goals may be met through a successful data-warehousing project, be it in the form of a more efficient, informed government or as a result of increased public access to information. But given the substantial barriers to success, a thorough planning and investigation process is necessary.

Gant and Ijams, in “Digital Government and Geographic Information Systems,” focus on how government agencies are deploying geographic information systems (GIS) to enhance the delivery of digital government. Outlining critical technological advances enabling government agencies to use GIS in web-based applications, they illustrate the approaches that state and local governments of the United States are taking to deploy GIS for e-government applications using examples from Indianapolis, Indiana, Tucson, Arizona, Washington, D.C., and the State of Oregon’s Department of Environmental Protection.
In “Training for Digital Government,” Howle Schelin argues that while the use of digital government applications has increased exponentially in the past decade, the training that should accompany it has not. This chapter seeks to offer insight into the current need for and state of training for digital government, as well as to highlight key models at each level of government. Additionally, it attempts to outline a training methodology for federal, state, and local employees and officials in order to reduce the information asymmetry that occurs within the context of digital government.

Similarly, Pavlichev, in “The E-Government Challenge for Public Administration Education,” emphasizes that as public sector agencies use the e-government model to improve delivery of their services, it is important that this model become integrated into education of future leaders of the public service. A fully-scaled implementation of e-government requires more than simple automation of the existing processes. It can affect significantly the overall organizational structure of public agencies, their missions and goals, and the way they interact with customers and with each other. Because of its profound impact on the functions and even structure of government, implementing e-government involves significant challenges, including resistance to change and the problem of lack of information technology skills among public managers. To address these challenges, public affairs programs must include in their curricula courses that would prepare qualified graduates for the era of e-government. Survey results are presented, outlining efforts of graduate public affairs programs to meeting demands related to the e-government model. Major components of the model are outlined and the extent to which these components are covered in graduate courses in leading public affairs programs is assessed.

THE FUTURE OF DIGITAL GOVERNMENT

In “Digital Government and the Digital Divide,” Groper discusses how the digital divide has negatively impacted the ability of minority groups to accumulate social capital. This chapter compares Internet access rates in California and the United States in order to test the premise that race is the primary influence upon Internet access. In California, the data explicitly depicts a stronger relationship between Internet access and education and income than it does with Internet access and race. Across the United States, the results are not as stark. However, education and income are increasingly becoming important variables. The policy implications of this study are dramatic. Since most governmental and non-profit efforts in the United States have put resources and money into decreasing the racial divide, this study suggests that at least some of those resources should be shifted to alleviating the educational and economic discrepancies that exist among the American people.

Holzer and his colleagues, in “Digital Government and Citizen Participation in the United States,” address the topic of citizen participation via digital government in several sections: the academic literature, best practices, principles and implications from these best practices; and potential problems of digital citizen participation in terms of further research. The best practices described in this chapter include Minnesota’s Department Results and Online Citizen Participation Opportunities, Santa Monica’s Budget Suggestions, California’s California Scorecard, Virginia Beach’s EMS Customer Satisfaction Survey, and others.

An international perspective on the crucial issue of citizen participation in e-government is provided by Geiselhart in “Digital Government and Citizen Participation
in International Context.” Geiselhart observes that the shift towards digital government is part of a sweeping set of changes. These are best viewed holistically, as they relate to pervasive shifts in the locus and purpose of many forms of control. These changes are visible in the gradual shift of terminology from ‘government’ to ‘governance’. This chapter outlines the implications of this shift at the international level, and the role of digital technologies in global citizenship. Participation in these new regimes of global governance includes individuals as well as corporations, international institutions and non-government agencies.

Finally, in “The Future of Digital Government,” Corbett explores the challenges that we will collectively face as we make choices about the use and implementation of enabling technology for e-government. The construction of informed government policy that protects citizens’ freedoms while accomplishing the critical work of a professional civil service within a democratic government will be the central theme of public administration in the next decade.

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15 November 2002