The readings which compose this volume are intended to constitute a survey of many of the most important dimensions of managing information technology in the public sector. Essays in Part I address general policy and administrative issues in this arena, while those in Part II are more applied and address information technology skills needed by public managers. Taken together, it is hoped that a contribution is made by these essays toward the knowledge and competencies needed by graduate students of public administration and by practitioners new to this field.

Part I: Managing Information Technology in the Public Sector

In “The Challenge of Teaching Information Technology in Public Administration Graduate Programs,” Alana Northrop empirically reviews the level of computer and information management instruction in American public administration graduate programs and outlines prescriptive elements needed for curricular advance. Alana Northrop is a member of the faculty of California State University - Fullerton and is author of articles in Public Administration Review, Public Administration Quarterly, and other journals.

In “Political Dimensions of Information Systems in Public Administration,” Bruce Rocheleau reviews the literature on political dimensions of public-sector information management;
covers both intra- and inter-organizational politics, illustrating major themes with examples and practical illustrations; outlines general strategies used by public managers to function effectively in political environments. Bruce Rocheleau teaches information management in the Division of Public Administration, Northern Illinois University, and has published numerous chapters and articles on information management in government in journals such as the Public Administration Review, International Journal of Public Administration, Computers and Human Services, and Public Productivity & Management Review.

In “Information Technology and Organizational Change in the Public Sector,” Sonal J. Seneviratne reviews the literature about the relationship between organizational change and public sector information management, thereby drawing lessons for public sector managerial practice in a technological era. Sonal Seneviratne has had ten years experience in the information systems field both as an analyst and information systems manager, prior to becoming the Boaz Research Professor and Director of Organizational Development and Learning at the University of Southern California. His articles have appeared in Public Administration Review and the Asian Journal of Business and Information Systems.

In “The Evolution of Information Technology Management at the Federal Level: Implications for Public Administration,” Stephen H. Holden notes that the federal government relies extensively on information technology (IT) to perform its basic missions. Arguably, the field of public administration should be driving the theory, policy, and practice for managing these increasingly important resources. This is especially true as public organizations move to electronic service delivery to improve mission performance and increase efficiency. This chapter reviews the literature from several academic disciplines and other sources covering IT management and comparing it to a normative model of management maturity. The review demonstrates that despite some maturation in the literature for managing IT, that public administration has contributed little to this effort. Other fields, such as information sciences and business administration, have done more work to inform IT management theory, policy, and practice at the federal level. This gap in public administration literature raises profound questions about the ability of public organizations to move into the information age. Stephen H. Holden is the National Director, Electronic Program Enhancements, for the Internal Revenue Service (IRS). He leads the development of new electronic filing, payment, and communications programs for the IRS. He joined the IRS in 1994 and has worked on their systems modernization efforts during his tenure. Prior to coming to the IRS, he worked for ten years at the Office of Management and Budget (OMB), doing a variety of policy, management, and budget analysis work. During that time, he served as the principal author of OMB’s government-wide policy for information technology management. He earned his Ph.D. in Public Administration and Affairs from Virginia Tech in 1994.

In “Strategic Planning for Public Sector Information Management in State Government,” Patricia D. Fletcher draws on data from national studies of state, county, and local level government information management to set forth the rationale, methodology, and management considerations involved in utilizing strategic planning to improve public sector effectiveness through information management. Patricia D. Fletcher teaches strategic planning and information resources management at the University of Maryland - Baltimore County. She has played major
investigatory roles in three national studies of information resources management.

In “Managing Information Privacy and Information Access in the Public Sector,” George T. Duncan discusses the manager’s role as a data steward, with a focus on the federal legal and administrative context; shows how to develop a confidentiality plan for an agency; suggests means of resolving the tension between and privacy and data access; explores the implications of recent developments in information technology and telecommunications. George T. Duncan is Professor of Statistics in the Heinz School of Public Policy and Management, Carnegie Mellon University. He served as chair of the Panel on Confidentiality and Data Access of the National Academy of Sciences (1989-1993) and subsequently published the book Private Lives and Public Policies: Confidentiality and Accessibility of Government Statistics.

In “Electronic Governance on the Internet,” Michael Warren and Louis Weschler discuss present and potential use of Internet-based technologies which impact access, governance, and democratic processes in public-sector environments. The chapter is based in ased in part on a doctoral dissertation by the lead author, who is also president of Electronic Archive Services, an information systems firm. Lou Weschler is professor of Public Affairs at Arizona State University, where he directs a study of the use of technology in community government.

Part II: Computer Applications In Public Administration

In “Leading Edge Information Technologies and Their Adoption: Lessons from U. S. Cities,” Donald F. Norris bases his observations on a national study of the adoption of leading edge technologies. This essay surveys the range of information technology innovation in American cities and outlines the management and environmental characteristics associated with successful innovation diffusion and adoption. Donald F. Norris is director of the Maryland Institute for Policy Analysis and Research and is the author of numerous research studies on information technology. Dr. Norris is also Visiting Professor in the Department of Public Policy and Managerial Studies, DeMontfort University, Leicester, England.

In “Management Information Systems in the Public Sector,” Richard Heeks explains the features of public sector monitoring and control systems using American and international examples; he provides a general information systems model, focusing on the management rationale for IS planning in the public sector. Richard Heeks is director of the Public Sector Management and Information Systems master’s degree program at the University of Manchester (UK) and is author of three books and numerous articles on public-sector information systems.

In “The Software Toolkit Approach for Public Administrators,” Carl Grafton and Anne Permaloff provide an overview of personal computer skills required of public managers, focusing on competencies associated with data analysis and data presentation. Carl Grafton and Anne Permaloff teach in the Public Administration Program of Auburn University - Montgomery. Carl Grafton also serves as Book Review Editor for the Social Science Computer Review.

In “Computers, Survey Research, and Focus Groups in Public Administration...
Research and Practice,” Michael S. Vasu and Ellen Storey Vasu provide an overview of the advantages and use of computer-based survey research tools for accomplishing basic public administrative tasks involving policy development, program evaluation, and impact assessment. Michael Vasu directs the Social Science Research and Computer Laboratory at North Carolina State University and consults widely on survey research. Ellen Vasu is an Associate Professor in the Department of Curriculum and Instruction at North Carolina State University and coordinates the graduate program in Instructional Technology.

In “Managing Geographic Information Systems in the Public Sector,” T. R. Carr discusses the rapid evolution of public-sector GIS, reviewing primarily local level applications in education, public safety, and city planning; covers managerial issues and pitfalls. T. R. Carr is chair of the Department of Public Administration and Policy Analysis at Southern Illinois State University. His publications have appeared in *The International Journal of Public Administration* and *Labor Law Journal*, and he has coauthored a public policy text with St. Martin’s Press.

In “Legal Aspects of Electronic Mail in Public Organizations,” Charles Prysby and Nicole Prysby discuss public management opportunities and responsibilities in the age of electronic mail, outlining development of agency guidelines for use of electronic mail. Charles Prysby is chair of the Political Science Department at the University of North Carolina - Greensboro. Nicole Prysby is an attorney with interests in legal issues of electronic communication.


Finally, in “Online Research for Public Managers,” G. David Garson presents an overview of online research tools for public-sector practitioners and researchers. G. David Garson is professor of public administration at North Carolina State University, where he teaches courses on computer applications, GIS, and research methodology. Editor of the *Social Science Computer Review*, he is also author or co-author of 16 books and over 50 articles on public administration, computer applications, and political science.