## **Public Management Information Systems with Framework-Based Applications**

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influential. Another work that covers very similar topics is *The Deliberative Democracy Handbook: Strategies for Effective Civic Engagement in the Twenty-First Century,* edited by John Gastil and Peter Levine. This handbook also relies on case studies but has less focus on the citizen.

One of the biggest advantages of Leighninger's book, the very hands-on style, also represents one of the weaknesses of this otherwise convincing work. The author could have tried to include some theoretical thoughts in order to make it more easily applicable for researchers in the field. Some of the theoretical explanations will also help future researchers to come to novel conclusions that, in turn, would benefit the practitioners in the field. A theoretical framework could have given the book more of a structure—that is, made it more usable as a guide book for future conflicts among administration and the citizenry.

Because the book is written in a very readable style, it is appropriate for anyone who is interested in the field of democratic governance. In particular, it should give new input to current administrators, leaders within nonprofit organizations, and all other participants in the alternative dispute resolution process. In addition, it provides good insights for students in the fields of public administration, public policy, and related fields at both the undergraduate and graduate level. Consid-

ering that these students are likely to be the future administrators and leaders, this book is a must-read for them.

Even though it appears likely that our future democracy will be different, nobody yet knows exactly what it will look like. This book might help those who are interested in shaping that future to discover strategies that have brought satisfying results and might be further developed and those strategies that should not be pursued to avoid disappointment. That Leighninger is no utopian but rather a realist is well demonstrated by his concluding comment: "The next form of democracy may not be the best form of government, but it surely won't be the worst: it will carry all the thorny problems and thrilling potential of shared governance" (250).

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## Public Management Information Systems with Framework-Based Applications

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Bruce A. Rocheleau, Public Management Information Systems (Hershey, PA: Idea Group, 2006). 382 pp. \$94.95 (cloth), ISBN: 1591408075.

Subhash C. Bhatnagar, E-Government: From Vision to Implementation (New Delhi: Sage Publications, 2004). 202 pp. \$31.65 (paper), ISBN: 9780761932604.

Public Management Information Systems, by Bruce A. Rocheleau, and E-Government: From Vision to Implementation, by Subhash C. Bhatnagar, view public administration from broad,

albeit different, perspectives on information and communication technologies. E-government represents a broad-based platform for changing technologies that attempts to match citizens' expectations with responsiveness to their needs. But to implement advanced e-government practices, core infrastructures need to be in place. Together, these books provide a view of such infrastructures.

The main thesis of *Public Management Information*Systems is that generalist managers and end users need to play an active role in the planning and implementation of applications for those "systems to be

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responsive" (vii). The author's goal was to produce a book for practical use. Rocheleau synthesizes existing information management research, provides detailed examples, and integrates most of the concepts he discusses with independent research and empirical evidence. The book includes qualitative and quantitative perspectives as well as descriptions of Rocheleau's own scholarly explorations and experiences. He distinguishes between external and internal environments and contrasts private and public information technologies (IT). Taking into account the origin of management information systems (MIS) more than four decades ago, he does not restrict his contribution to any one era, and as a result, he richly rewards the reader. Almost every chapter presents prominent public administration literature, both classic and contemporary, as the author builds toward a pivotal midpoint section on e-government and enterprise architectures.

The author uses an evenly crafted, no-nonsense approach that is still based in public administration. I initially expected several case studies loosely assembled around the IT theme, but what I read was a carefully guided representation of MIS applicable to a practitioner's perspective. Several chapters present formal as well as informal ways of implementing systems. The book is structured into sequential and hierarchical chapters, and these are divided and logically based on the topic being discussed. Each chapter has key concepts, discussion questions, and exercises. The chapters are thoughtfully organized in an attempt to explain a public administration topic to a practitioner in the best way possible. For instance, beyond the e-government chapter, the book covers sections on politics, leadership, organizational learning, ethics, evaluation, and accountability. This approach, extending the existing public MIS work of Bozeman and Bretschneider (1986), should help technical staffers become increasingly aware of the concepts of public administration and, to some degree, interorganizational considerations.

For example, Rocheleau amply covers budgeting. This crucial element of information resource management is mentioned in almost every chapter, and appropriately so, as financial considerations are often key to decisions in public MIS. Rocheleau devotes an entire chapter to procurement, but he does not stop there, as many other IT books do. He goes on to address financing sources such as the politically contentious general funds, enterprise, and internal service funds. He touches on the use of bonds, commercial partnerships, user fees, and pooled resources. These alone could give practitioners a better understanding of budgets, and public administrators an insight into funding strategies. Most importantly, the book could help guide an IT-based individual toward the broader concepts surrounding fiscal administration.

Rocheleau also discusses other advanced information resource management issues, such as centralization, enterprise architectures, e-government, and information sharing, in the context of framing boundary-spanning issues. His chapter on "Prescriptions for IT in Government" provides a set of criteria by which to judge those prescriptions as well as each of their limitations. For example, in a synthesis of the primary "best practice" literature, he not only characterizes each practice, but he also explains its source, distinguishing between the public and private sectors, while discussing advantages and disadvantages.

Rocheleau draws from a wide range of enterprise architecture studies that provide both qualitative and quantitative evidence. Enterprise architectures are developed using foundational software engineering principles in an attempt to facilitate organizational efficiency through computer code reuse. He gives numerous domestic federal, state, and local examples together with references to their associated Web sites. This allows the reader to easily access these sources to obtain the latest practices long after the book has been published. The links permit the reader to progress into more advanced or evolving topics like e-government and citizen participation. In conclusion, the author suggests that the readers take the best of each source. Public administration or IT readers seeking a single book on public MIS will be hard-pressed to find a better source than Rocheleau's book.

The aim of *E-Government: From Vision to Implementa-*tion is "to serve as a practical guide for developing
e-government at a local, state or national level" (11).
Bhatnagar uses 12 case studies to provide practical
guidelines on the selection of "application areas, project design, strategy and implementation" (13–14).
In this sense, Bhatnagar's book may be thought of
as a test case for Rocheleau's text in the area of
e-government, although they differ considerably in
perspective.

Both Rocheleau and Bhatnagar cover four stages of e-government: Web presence, limited interaction, transaction, and transformation. These are similar to the stages described by other e-government authors. The main difference between the books lies in approach. Rocheleau's book seeks to prepare the reader for a wider citizen-based domain, and his examples are wide-ranging and stress interorganizational aspects. Bhatnagar's book is more transactional and specific in nature, and his examples are more focused on accounting and financial systems in developing countries only. Eleven of his 12 case studies contain references to the World Bank, and he clearly spells out his involvement with that organization. If most, or all, of the planning for these projects originates from a set of World Bank models, as this reviewer suspects, countries attempting projects independent of that

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organization may face different challenges and considerations. Still, the book provides many valuable insights based on the author's seasoned views of e-government and complex organizational issues.

A second difference lies in the treatment of system design. Systems may be built from scratch or adapted from what is available. According to Rocheleau, an enterprise architecture can be thought of as "the establishment of common hardware and software platforms, but it also can include policy and management prescriptions" (145). These are portable and can be thought of—in software engineering terms—as application-based extensions. But he stresses careful planning and design.

Bhatnagar is more concerned with the application of existing systems, particularly those with fee-based revenues. As one might expect from World Banksponsored programs, most of the project examples are financial. But there are many other service-oriented e-government applications that could help people. Do developing governments have as many incentives or resources to implement these? According to Bhatnagar, public-private partnerships are "the fastest and most efficient approach to rolling out e-government services" (78), but from the examples in his book, the private partner was usually the World Bank. Although I cannot corroborate all instances, it may be that the software design elements developed by the World Bank were used—and reused—between their functionally specific applications and between different countries. These could be thought of as being base class modules that are ready for new applications even those yet to be envisioned.

This approach has obvious utility. Successful organizations will economize and attempt to refine their core application modules so that they can reuse software engineering code when new applications need to be implemented. If these extensions were made in all of Bhatnagar's examples, one might surmise that the IT staff working for the World Bank did not "reinvent the wheel." Changes would be frequently made in functionally specific areas, but much less seldom in the software's base classes or foundational levels. For example, in the case of currency conversions, a core module could be developed once—using a single computer language, instantiated numerous times—while appearing to use each country's national currency and/or language.

Bhatnagar's book documents how far existing frameworks for application development in information and communication technologies have penetrated even into remote regions of the world. For example, in at least three projects cited by Bhatnagar, a new information system improved and facilitated the correct titling of property or land registration. With such a deed, the farmers could get loans against their property to buy fertilizers and/or equipment. (If so, and if the upcoming year is bad for crops, would the first e-government transaction done by these farmers possibly be their last?) Bhatnagar provides other examples of functionally specific applications. A public administration reader looking for grounded theories may be a bit stifled by all the facts and figures of each project with little to glean toward a theory-based view. Still, the projects and examples are helpful in their own contexts, such as dealing with governmental issues, the reluctance of use by targeted populations, and obtaining benefits and costs.

Public Management Information Systems and E-Government: From Vision to Implementation analyze the organizational processes associated with contemporary information management. Both approaches are practitioner based. Rocheleau has made a series of careful analyses of public IT practices and fitted them to a public administration—based framework. He provides relevant examples and empirical evidence, and links the desirability of enterprise architectures and frameworks with e-government. Bhatnagar takes a series of cases, originating mainly from a common organization, the World Bank, and describes how enterprise architectures can extend technologies out to several functionally specific areas within a global domain.

What we can gain from these books and their authors' perspectives is more than each of them can treat on its own. When possible, public administrators should allow experienced IT architects to create extendable frameworks. These efforts may take more time and resources, but ultimately, they may facilitate organizational change. In contrast, a politically expedient project without an architectural basis may provide a short-term fix, but the exclusion from an organization's core technology may make the project fragile or even dysfunctional. Rocheleau provides the theories and practices, whereas Bhatnagar and the World Bank provide an extended technology example. In successful organizations, enterprise architectures have proven to be durable and resilient. These differing views of public administration and IT hint at the possibilities of future wide-reaching organizational requirements and potential.

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