

## Book Review

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**Digital Government: E-Government Research, Case Studies, and Implementation**, edited by Hsinchun Chen, Lawrence Brandt, Valerie Gregg, Roland Traunmüller, Sharon Dawes, Eduard Hovy, Ann Macintosh, and Catherine A. Larson, Springer, 2008, 730 pp.

Electronic Government (e-government) is a rapidly growing field that gets increasing attention from practitioners and researchers around the world. This attention comes from various disciplines, including public administration, information systems, computer science, political science and organisation research. Over the last decade the field has been maturing, with its own research programs, dedicated conferences and journals, and – consequently – a growing body of literature. The book “Digital Government” aims to present a comprehensive review of recent IT research that is of importance to the field of e-government, while at the same time acknowledging the broader picture of the application of Information Technology (IT) to all levels of government. This book consists of a variety of chapters written by authors coming from different disciplines and backgrounds, bringing in various views on e-government.

In the preface to the book, the editors identify various domains of the application of new information technologies to government. Also, they name a number of goals of such applications, including “streamlining processes and increasing efficiency, sustaining and strengthening democracy, and improving government accountability and transparency”. The field of e-government (electronic- and digital government are used interchangeably in the book) is therefore not limited to the information technologies used in e-government tools and services, but also includes social, democratic, and policy factors related to the use of technology in government. Therefore, the intended audience of the book is quite broad and includes students and researchers in various disciplines, such as business, public policy, social sciences, information systems and computer sciences. Besides an academic audience, the book is also suitable for practitioners such as decision makers, consultants and IT- and public service managers. Given that substantive parts of the book focus on IT research, readers should at the least have some affinity with IT to be able to fully understand and appreciate the book.

The book contains 32 chapters, each accompanied with a section containing suggested readings, online resources and questions for discussion. These sections offer additional material that can be used in courses, discussions, or direct readers to more information on the topics they find interesting. To structure the book, the chapters are divided in three major parts; the first unit explores the e-government domain in a broad way and includes reflections on democratic, social and policy aspects of e-government research. The second focuses on current IT research that is related to e-government. The third unit contains successful cases in e-government research. This organization feels somewhat arbitrary for some chapters, but in general the structure is quite logical. The chapters have proper titles and contain a very good overview on the first page, making it easy to identify and select chapters that are of interest to the reader.

Most chapters in the first unit take quite a broad stance towards the field of e-government. In chapter one, Coleman introduces the domain with a broad discussion of governance and technology, a relation in which technologies are a “constitutive element of governance”. IT is not a recent development that influences the way governments function, but the author takes a far more fundamental view on the role of

technology in governance and politics, including its impact on the relationships between social, public, political and governance elements. By noting that there is a lack of reflection on the normative purpose of e-governance, he raises a concern that cannot be addressed by looking at technologies and government from an IT perspective alone. Scholl, who investigates whether e-government can pass a research discipline, also stresses this point in the subsequent chapter. He concludes that e-government research (EGR) “might be most effective when established as a multi-, inter-, and transdiscipline representing a more integrative understanding of knowing”. EGR spans across disciplines and shows the most overlap with Information Systems research and Computer Science, and Public Administration. However, it also shares research questions, methods and study objects with other domains, including – among others – information science, statistics, sociology, political science, geography, and the natural sciences”. Hovy goes on to discuss what e-government research should look like. He distinguishes three perspectives on EGR; the technological, the normative, and the evaluative.

If this EGR model is applied to the book as a whole, unit 1 can be regarded as a discussion of the normative aspects of e-government research. Although chapters in units 2 and 3 sometimes refer to those aspects as well, most of them lack a full normative reflection of the findings and conclusions (e.g. the impact on politics, legislature, ethics, etc.). Distinguishing between the technological and the evaluative is more difficult; most chapters in unit 2 take a more technological perspective (such as ontology, semantics, information sharing and integration, etc.), while unit 3 contains chapters that study the effects of e-government research on specific cases (evaluative). However, the line between the two units is quite thin and it is not always clear why certain chapters are part of a certain unit. There are also examples of this issue in unit 1; chapters eight and nine shift from the more fundamental topics of the other chapters in unit 1 and take a more narrow focus on a topic which is then described in a lot of detail. Chapter eight discusses specific rules on accessibility of U.S. Federal e-government. Its placement among chapters that discuss the “Foundations of Digital Government and Public Policy” (title of unit 1) would suggest a discussion of broader concepts, like the digital divide and its implications on equality and citizenship. The same goes for chapter nine, in which research on voting machines is presented. Both chapters are well written, but seem somewhat out of place in a unit on ‘foundations’ of a discipline.

This touches upon a more general point. As argued, the book starts with a number of chapters that provide an excellent overview of a wide variety of elements that are related to this domain of research and practice. The line of argument that arises from the order of these chapters is one of a multi-disciplinary, integrative way of knowing with a reflection on normative aspects. The editors have structured this well in the order of the chapters. After this discussion of the foundations of the domain, the line in the argument and structure of the book becomes vague. For many chapters that discuss specific technologies or cases, it is unclear how they relate to the broader picture painted in the first chapters of the book. There is a lack of consistency between the chapters. For example, the first chapters of unit 1 regard e-governance as a broad concept, that includes IT support of service delivery, collaboration, voting, participation, and many others. On the other hand, the last chapter of unit 1 takes a much more narrow view of e-governance as the IT support of the legislative role of representatives. There is not one single definition of e-government (or digital government) that is used throughout the book. Another example of the individual character of the chapters is the variation in reference style, some chapters uses an APA-based style, while others use numbered references. Although this does not damage the readability of the book, it illustrates that this book is primarily a coordinated bundle of individual chapters. Global definitions, editors’ introductions per unit, and an overarching model to frame the topics would have served better to set a general picture the individual chapters could relate to.

That said, for a book that is primarily focused on information technology or –systems, it does a good job acknowledging its place in a broader field. The quality of the individual chapters is high and the selection of chapters covers a wide array of topics that are relevant for the discipline. Besides the already mentioned chapters, the foundations also include a critical reflection on the research domain, explorations into e-democracy and participation, a public management perspective on the practical relevance, privacy considerations, and support for legislation. These chapters provide an excellent overview of the multi-disciplinary nature of the field and can be very useful to everyone in search for a general introduction to the domain of e-government research, whether a researcher, student or practitioner.

Unit 2 is introduced by a broad introduction to the context, background and history of IT, and relates this to the rise of the e-government domain. This chapter serves as a bridge between unit 1 and 2. Furthermore, unit 2 investigates issues in data integration, such as a lack of standardisation. In accordance to the concept of unit 2, the focus shifts to IT. Virtualisation is discussed as a technology to cope with heterogeneous infrastructures, for example to facilitate transnational e-government. Heterogeneity also is an issue when dealing with large quantities of data, for example by describing ontologies and semantics issues for the legal domain and public safety, when aiming to share information. In general, sharing information is essential for collaborative decision making, which requires interoperability and cultural change as information required for executing a public task often crosses organizational boundaries. In such complex situations, simulation may help to make more informed decisions. In this unit, many issues on IT research in e-government are included. Given the diversity of the domain, one book can never cover all there is to it. One issue that might be found underrepresented in the book is research that focuses on service delivery to citizens and businesses, for example by digitalizing back offices and inter-organizational infrastructures, while keeping front offices accessible through all channels. For this, research on citizens' perspectives, government interactions with citizens and businesses, shared service centres, and multi-channel management could be included.

In unit 3, the first chapter identifies the role good practices can play as model cases for e-government applications. To use good practices, the cases must be translated to a practice at hand. Each chapter in this unit describes one or multiple cases of e-government applications and discusses what can be learned from those cases. Moreover, this unit includes cases from outside the US and EU, while the chapters in units 1 and 2 are dominated by US and EU practices. This may help in transferring the knowledge to other countries (although one may doubt the added value of Chinese screenshots in an English textbook). The unit concludes with a chapter on “hybrid e-government”, suggesting a combination of online and offline systems to maximize impact, a model with potential relevance for developing countries.

The book offers a diverse collection of chapters and is successful in identifying technological, normative, and evaluative directions and challenges in e-government research. The quality of the individual chapters is very good and the editors are successful in incorporating a wide variety of IT related subjects in one volume. The ordering of chapters and the additional components (suggested reading, online resources and questions for discussion) make the book a good reference source and a valuable collection for developing e-government courses and facilitating discussion between researchers and practitioners.

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