

## Preface

Although the conceptual roots of what has been called the information society go back to several decades, it was during the '90s that they became popular as a consequence of several factors such as the liberalization of the telecommunications sector all over the world; the spread of a technological change that brought about the informatics, microelectronics, and communications revolutions; and the acceleration of the globalization process that has motivated important social and economical transformations associated with the new technologies.

There is no doubt that this new situation requires the implementation of effective actions by the different actors of the new society and economy. Access to the Internet and knowledge about the use of computers have become expectations and obligations for economic, social, political, and civic participation. That is why not only private-sector efforts are welcome, but public initiatives (among them the electronic-government ones) are also critical.

Broadly defined, e-government has to do with the use of all information and communication technologies to support the actions of public administrations as well as political processes. Thus, electronic-government initiatives include changing the inside of public-sector organizations (what has been called back-office adjustments), improving service delivery, and promoting participation and democracy (often referred to as e-governance or e-democracy). These different types of initiatives are aimed at promoting more efficient and effective governments, facilitating more accessible government services, allowing greater public access to information and participation, and making governments more accountable to citizens. In sum, e-government projects pursue citizens' satisfaction and therefore are about transforming governments to be more citizen centered. That is why they have to be understood as part of

the public administration and state reform processes that have been changing public-sector organizations in order to improve their performance.

Although several projects have been carried out all over the globe, the truth is that the development of electronic-government initiatives is unequal depending on the region of the world (what is more, on the country) where they take place. Thus, while countries such as the United States, Great Britain, Sweden, Singapore, Australia, or Canada are the leaders when it comes to implementing electronic-government programs, the same cannot be said about most Latin American nations.

It is therefore the intention of this book to understand how several Latin American governments and public administrations have chosen to pursue their e-government initiatives.

## **Benchmarking E-Government**

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For the past 5 years, several e-government global, regional, and local benchmarks have been carried out. Although not all of them have included Latin America in their analysis, the ones that have coincide in their perceptions about the implementation of e-government in this region. Generally speaking, Latin America usually ranks below both North America and Europe and only a little above the world average. In *Benchmarking E-Government*, Ronaghan (2002) classified the region as one with medium e-government capacity and interactive presence.<sup>1</sup> Despite the fact that Latin America performed better than East Asia and Africa, it was still far from the most developed nations such as the United States, New Zealand, or the United Kingdom.

The United Nations' *World Public Sector Report 2003*, on the other hand, also placed Latin America in a better position than South and Southeast Asia, Oceania, and Africa, but still worse than North America and Europe. As a matter of fact, its E-Government Readiness Index score of 0.4420 was only a little higher than the world average (0.4020).<sup>2</sup>

One year later, in the United Nations *Global E-Government Readiness Report 2004*, Latin America's score had only increased by an insignificant 0.0138.<sup>3</sup> Although the region was still ahead of Africa, Oceania, and South and Central Asia, for the first time, it was behind Southeast Asia. Also, the breach between Latin America, and North America and Europe expanded. Finally, in the most recent United Nations report (2005) available,<sup>4</sup> not only did the

*Table 1. E-Government Readiness Index 2003-2005: A comparative approach*

Region	Index 2003	Index 2004	Index 2005
North America	0.8670	0.8751	0.8744
Europe	0.5580	0.5866	0.6012
Southeast Asia	0.4370	0.4603	0.4922
South and Central America	0.4420	0.4558	0.4643
West Asia	0.4100	0.4093	0.4384
The Caribbean	0.4010	0.4106	0.4282
South and Central Asia	0.2920	0.3213	0.3448
Oceania	0.3510	0.3006	0.2888
Africa	0.2460	0.2528	0.2642
World average	0.4020	0.4130	0.4267

distance between Latin America and the most developed countries widen, but the gap between the region's score and the world average decreased. The following table summarizes the described trends.

The previous data prove the existence in Latin America of what can be called an "e-government divide," that is, a digital gap that occurs between those public administrations and governments that are effectively, appropriately, and successfully implementing and delivering online services to citizens and those that are not (Gascó, 2005). In particular, the figures show a global, cross-country, or international e-government divide: a divergence of implemented e-government actions between developed and developing countries.<sup>5</sup>

Although as earlier showed, generally speaking, Latin America has tended to lose out in the set of world comparative rankings, recently the region has designed and implemented several projects aimed at introducing the new information and communication technologies in the public sector. Therefore, I believe that some of the poor results displayed are not due to government inactivity. Instead, there are other variables that play an essential role in Latin American e-government success or failure.

Several authors have already reported that a limited human and technological infrastructure has a decisive impact on how a country performs in terms of e-government. Latin America is not an exception. But this cause-effect view is,

from my perspective, too narrow. As a consequence, this book makes evident the existence of other more structural factors that also influence e-government accomplishment. Therefore, the different chapters that it contains focus on other variables, besides ICT penetration level (digital divide) and illiteracy, that have to be considered to understand why the region is not always being successful in its efforts. In particular, the initiatives presented highlight the importance of both Latin American formal (such as public-administration modernization and state reform processes) and informal institutions (for example, patronage and clientele practices).

## **Institutions (Also) Matter**

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As I have already stated (see, for example, Gascó, 2005), the ICT penetration level as well as the availability of trained human resources and financial means condition the development of digital-government initiatives. Certainly, on one hand, if access and connectivity are insufficient or limited, only a few will be able to benefit from ICT use and, therefore, from the advantages to which e-government may give rise. The data that can be found at the *Internet World Stats* Web page (<http://www.internetworldstats.com/stats.htm>) makes this evident. Thus, back in March 2006, only 14.4% of the Latin American population had access to the Internet, a very low percentage if it is compared to the European 36.1% and the North American 68.6%, but still above the ratio of less developed regions, such as Africa (2.6%) or Asia (9.9%). What is more, if technology adoption is poor and slow, governments and public administrations will experience their own technical and managerial difficulties when implementing digital projects aimed at provisioning online services.

On the other hand, technology and also recruiting and training IT professionals are expensive, and money is often in short supply in the public sector. Resource scarcity or abundance is strongly influenced by a country's economic and social composition, which is usually numerically represented by the Human Development Index that is developed on an annual basis by the United Nations Development Program (see <http://hdr.undp.org/>).

In short, as Ronaghan (2002, p. 2) well summarizes, digital-government initiatives depend on key factors such as the state of a country's telecommunications infrastructure, the strength of its human capital, the political will and commitment of the national leadership and shifting policy and administrative priorities... Each of these factors influences how decision makers,

policy planners and public sector managers elect to approach, develop, and implement e-government programs.

Nonetheless, to stop the analysis here would not be wise since I believe that there is another important factor that explains the e-government disparities between countries: the stage of evolution of public-administration changes. Gascó (2005, p. 692) says,

*According to this variable, those regions that have designed and implemented successful e-government programs have already gone through an important state reform process that has produced an institutional change and therefore new public rules and ways of operating. They have indeed left behind the bureaucratic administration model to adopt the new public management one, or even, I add now, the governance paradigm.*

In the case of Latin America, and despite the fact that modernization processes have been designed and implemented in several countries, only a few have gone through a real institutional transformation (Oszlack, 2001). This is so because, although these experiences have inexorably given rise to organizational changes,<sup>6</sup> it is not clear that they have also motivated institutional changes, that is, both formal and informal institutional reform processes or, as the economist Douglass North (1990) said, game-rules reforms or, strictly speaking, constraints that men impose on the economic, political, or social interaction (Gascó, 2003). As a result, the different initiatives, and the e-government ones among them, have not been able to solve the underlying conflict between the technical rationality and the cultural and political conditions (or, better said, institutions) of the context within the projects where implemented.

In order to understand why organizational change does not necessarily give rise to an institutional transformation, the following two statements have to be taken into consideration (Gascó, 2003):

1. On one hand, institutional change occurs whenever an alteration of relative prices is perceived by one of the parties taking part in a transaction as a win-win situation for that party or for all the participants involved. Therefore, institutional change depends on the actors' perceptions with respect to the gains (the payoffs, indeed) to be obtained.
2. On the other, institutions determine the payoffs.<sup>7</sup>

As a consequence, any reform strategy is strongly influenced by the current institutions of government because the parties involved determine the choices they make depending on the incentives systems within those structural arrangements. E-government initiatives are therefore also designed and implemented according to the preferences of government actors that, in turn, have been shaped bearing in mind the formal and informal rules and constraints as well as the enforcement characteristics of both, that is, considering the type of institution they are inserted into.

In particular, Latin American public administrations are still considered bureaucratic organizations that are usually more resilient to change due to its preference for stability, uniformity, and continuity. What is more, some authors such as Ramió (2001) declare that the region's public sector is still characterized by odd, pre-bureaucratic structures that have given rise to patronage practices and patterns that condition the performance of any modernization program (Gascó, 2005).

## About This Book

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*Latin America Online: Cases, Successes and Pitfalls* is a book aimed at enlightening the above concepts and therefore at analyzing the role of ICT penetration level, but also that of the state reform processes, the informal institutions, and the human and financial resources available in the performance of Latin American electronic-government initiatives. In particular, its overall objectives are the following:

1. To describe how e-government initiatives are taking place in several Latin American countries, both at the national and the local level
2. To provide insightful analysis about those factors that are critical in an e-government design and implementation process
3. To discuss how contextual factors affect e-government projects' success or failure
4. To explore the existence of a Latin American e-government model
5. To propose strategies to move forward and to address future challenges

The book presents insights gained by leading professionals from the practice, research, academic, and consulting side of the electronic-government field in Latin America. This is why it should be useful to a variety of constituencies including the following:

1. Politicians and public-sector officials (civil servants) who need a convenient source of information on what other governments are doing in terms of their e-government initiatives
2. Latin American practitioners who are looking for solutions to e-government initiatives implemented by their administrations
3. E-government professionals and practitioners who want to further explore the potential of ICT in the Latin American public sector; this target includes headquarters and field-office staff of large development organizations (such as the World Bank or the United Nations Program for Development), nongovernmental-organization staff and volunteers, or staff of bilateral development agencies (such as United States Agency for International Development (USAID), Angecia Española de Cooperación Internacional (AECI), or Canadian International Development Agency (CIDA)).
4. Private-company executives, leaders, and consultants who frequently liaise with government agencies to supply products or services or to carry out e-government projects
5. Academicians, researchers, and students interested in the e-government field

The book is presented in three sections. The first one, “National Case Studies,” reviews four electronic-government initiatives implemented at the national level and one executed at the province level. As a result, it introduces a wide range of issues such as the difference between back-office and front-office projects, the benefits of electronic-government initiatives, and the role of e-government in state reform processes.

In particular, Chapter I looks at the experience of the Argentine IT Professionals Forum, a cross-agency network that involves all the IT professionals of the Argentine public administration. This back-office initiative is especially interesting because it is an example of a new management model known as “community of practice,” a core organizational tool that facilitates the implementation of innovation processes.

Chapter II presents another back-office initiative that has been implemented in Brazil. Specifically, it is aimed at analyzing the results obtained by the Brazilian government strategy in the use of a specially developed e-government procurement system, *Compras.Net*, which has been recognized worldwide and praised due to the high level of innovation that it entails.

Chapter III portrays the adoption of e-government in Chile within the framework of the state reform and modernization process. In particular, the text presents both the technological and the institutional contexts that gave rise to the Chilean e-government strategy and describes some of its most successful experiences.

Chapter IV examines e-government in Brazil as a tool for increased civic participation and effectiveness. Particularly, a front-office initiative, the income e-tax system, is described and analyzed in the framework of the promotion of the Brazilian process of state restructuring and the challenges imposed by the digital divide.

Finally, Chapter V preliminarily evaluates the quality and functionality of four state-government portals in Mexico. It also analyzes their evolution from 2002 to 2005 and uncovers some general trends. In short, the research finds out that Mexican state-government portals seem to be mainly information catalogs with some transactional capabilities, although the observed portals also show a pattern of changing toward a more user-centered design, the integration of more electronic services, and an increasing concern for transparency and citizens' participation.

Section II, "Regional Comparative Studies," presents two regional studies that allow the reader to obtain some comparative knowledge about how the different Latin American countries are performing in relation to e-government.

Therefore, Chapter VI provides a comparative analysis of e-government in Latin America (both intra- and interregional comparisons) with the main objective of elevating e-government literature to a more quantitatively rigorous and sophisticated level. In order to do so, the authors introduce the United National Global E-Government Readiness Reports with particular focus on the Latin American region.

Chapter VII analyzes the existing disparity regarding the achievements of electronic-government development in the Latin America Southern Cone area (and specifically in Argentina, Chile, and Uruguay), underlining the important role of each country's own institutional framework.



Section III, “Local Studies” approaches several e-government issues at the local level. In particular, the final part of the book presents two chapters that compare the state of e-government and e-democracy in Latin American municipalities, one individual case study in one of Latin America’s largest cities, and one project conducted at the local level that shows a cooperation strategy between Europe and Latin America.

As such, Chapter VIII examines e-government practices in 15 Latin American cities. It does so taking into account five significant variables: privacy and security, usability, content, services, and citizen participation. Although the chapter does not take into consideration all e-government local practices in Latin America, it does provide benchmark cases for cities in the Latin American region.

Chapter IX aims at defining and measuring the level of development of electronic democracy in the following 17 Latin American local governments: Asunción, Bogotá, Brasília, Buenos Aires, Caracas, Guatemala, La Paz, Lima, Managua, Mexico Distrito Federal (DF), Montevideo, Panama, Quito, San José, San Salvador, Santiago, and Tegucigalpa. In doing so, the author pays particular attention to the impact of ICTs on local political processes from an institutional point of view.

Chapter X introduces a conceptual framework and a case study (the genesis of the communes in Buenos Aires, Argentina) to make evident the relationship between the information and knowledge society, development, and democracy. It emphasizes the contribution of ICTs to the consolidation of a public space where multiactor, open, well-informed, and transparent participatory processes can take place.

Finally, Chapter XI presents a European Union Alliance of the Information Society (@LIS) project, Electronic Government Innovation and Access (eGOIA), with the goal of provisioning demonstrators that show future-oriented public-administration services to a broad public in Latin America. The text focuses on the description of this European Union and Latin American cooperation initiative in São Paulo (Brazil) and some Peruvian municipalities.

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## Endnotes

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- 1 The study by Ronaghan presents the E-Government Index, a measure of a country's e-government environment that incorporates a country's official online presence, evaluates its telecommunications infrastructure, and assesses its human development capacity. The index classifies the different countries as follows: (a) high e-government capacity countries that index above 2.00, (b) medium e-government capacity countries that are placed between 1.60 and 1.99, (c) minimal e-government capacity countries that score between 1.00 and 1.59, and (d) deficient e-government capacity countries, which score below 1.00. Also, it considers the existence of the following five stages when implementing e-government initiatives: emerging (an official government online presence is established), enhanced (government sites increase and information becomes more dynamic), interactive (users can download forms, e-mail officials, and interact through the Web), transactional (users can actually pay for services and other transactions online), and seamless (full integration of e-services across administrative boundaries is accomplished).
- 2 The report presented the E-Government Readiness Index, a composite index comprised of a Web measure index, a telecommunications infrastructure index, and a human capital index, aimed at measuring online generic availability of information and services in quantitative terms. The index ranked between 0 and 1.
- 3 The index used in this report is the E-Government Index already used to measure worldwide e-government progress and development in the United Nations' *World Public Sector Report 2003*. More information about the composition and evolution of this index can be obtained from "A Comparative Analysis of E-Government in Latin America: Applied Findings from United Nations E-Government Readiness Reports," a chapter in this book by Gregory Curtin and Christopher Walker.
- 4 See Endnote 3.
- 5 However, it is also interesting to note that if data had been further disaggregated, two other e-government divides could have also been observed. On one hand, there is the regional e-government divide or the digital gap that refers to e-government actions between the different countries of Latin America. On the other, there is the domestic e-government divide, which explains the difference between the advanced online public administrations and the more backward ones in the framework of one Latin American specific country.

- <sup>6</sup> According to Thomas and Bennis (1972), an organizational change refers to the design and implementation, in a deliberate way, of a structure innovation, a policy, a new goal, or an operational transformation.
- <sup>7</sup> North (1994, p. 1, 4) is very illustrative about this assertion:

*Institutions are the structure that humans impose on human interaction and therefore define the incentives that together with the other constraints (budget, technology, etc.) determine the choices that individuals make that shape the performance of societies and economies over time...[For example,] if the highest rates of return in a society are to be made from piracy, the organizations will invest in knowledge and skills that will make them better pirates; if organizations realize the highest payoffs by increasing productivity then they will invest in skills and knowledge to achieve that objective.*