Introduction: e-governance, a global journey

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Introduction

This book is the result of an almost ten year long learning journey. Numerous academics, students and practitioners of electronic governance from all around the world have participated in this process. The journey took the form of an executive training program leading to an Executive Master's in e-governance from Switzerland's Ecole Polytechnique Fédérale Lausanne (EPFL). The program was conceived as a five times two week global journey spread over one year with significant preparation work, in-between-sessions assignments and a 60-page master thesis to be defended three months after the final module. The journey took us, over time to numerous locations worldwide where e-governance experiments were conducted, namely to Switzerland (EPFL), to Mexico (Tecnologico de Monterrey, later Universidad Cristobal Colon), to China (Beijing University), to Japan (Waseda University), to Korea (Sunkyunkwan University), to Thailand (Asian Isntitute of Technology), to Macao (United Nations University), to Estonia (e-governance Academy), to Canada (University McGill), to the United States (Syracuse University), to Rwanda (National University of Rwanda), to the Emirates (EPFL Middle East), and to India (Anna University).

Participants in the Masters program came from all over the world and were executives from government, the private sector and non-governmental organizations interested in electronic governance and motivated by the desire to learn from their fellow participants, from many practitioners in government and industry, from academic experts in e-governance and, most importantly, from the numerous and varied e-governance experiences around the world. Overall, we have conducted five such global learning journeys with 90 alumni around the world. This book is both a modest summary of this journey as well as homage to all the participants, the lecturers, the managers and the different University partners who, together, have made this global learning journey such a rewarding experience for all. The program was made possible thanks to an initial grant from the Swiss Development Cooperation.

1. The vision

When we started this e-governance Masters program in 2005 we had a vision. The vision was one of unleashing the potential of the information and communication

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technologies (ICTs) in the public sector, whereas the ICTs had already led to significant changes in the business sector and in society more generally.

At that time, the European Commission, along with many national governments, had already been actively promoting numerous e-government initiatives. As a result of these initiatives, services were being digitalized, portals were being created, digital signatures were being authorized, health cards were being accepted, votes were being cast electronically, along with many other electronic "public gadgets". Initiatives for these activities came from numerous sources, such as governments themselves, regional and local authorities, consulting firms, private firms that had developed particular products and services, citizens and NGOs experimenting with the new information and communication technologies, etc. As a result of these numerous e-activities, products, and services, public affairs did and still do slowly change, sometimes into the desired direction. Consequently, public services are easier to access, information is easier to obtain, fines get processed more rapidly, and votes are being counted faster. In short, the traditional activities of the State were being digitalized, something we called and still call the "digitalization of the existence".

Our goal, then, was not to criticize these various e-government initiatives. Rather, we thought, and still think, that the potential of the ICTs in government goes far beyond this digitalization of the existence. We thus had developed a framework which, we thought, would unleash the potential of the ICTs in the public sector. Below, we will therefore recall this framework which had guided our global e-governance journey. The framework is based on three elements, namely first the overall evolution from government to governance, secondly the conceptualization of governance and thirdly the distinction of three key governance functions, namely policy-making, regulation, and service delivery. Based on these three elements, we can then define our idea of e-governance which underlied our global learning journey and which underlies this book.

2. From government to governance

Already back in 2005, we thought that all these numerous e-activities, e-products, and e-services which were being displayed in the public sector could not be fully understood, appreciated, and assessed if they were not placed within the much broader framework of State transformation. Indeed, it is our firm conviction that "State transformation", did and still does constitute the underlying process, which then enables the ICTs to take root. It is therefore imperative to recall this underlying State transformation.

State transformation, which is itself the result of globalization, has, in our view, three separate dimensions, namely:

- The growing emergence of <u>non-state actors</u>, basically transnational corporations (TNCs) and non-governmental organizations (NGOs). Increasingly, the State has to share its powers with these non-state actors. Such power sharing is most pronounced at the supra- and at the infra-national levels.
- The growing emergence of <u>levels</u> of managing public affairs, other than the nation-state level. Let us mention here in particular of the emergence of supra-national levels (EU, global), as well as of infra-national levels (local, regions).

- The growing differentiation of the State's three main <u>functions</u>, namely the service delivery function, the rule-making function, and the (rapidly emerging) regulatory function. These three functions can increasingly be treated as being separate from each other and therefore being shifted to the different levels and the different actors.

These three movements are being combined with each other, which leads to the fact that public affairs become more and more fragmented (functions), diluted (levels), and outsourced (to non-state actors). The ICTs are part and parcel of this evolution which they sustain, as well as react to. The main idea which we wanted to promote was a dialectical one: on the one hand, the ICTs are actively pushing further this evolution of State transformation, thus favoring ever more non-state actors, multiplying levels of managing public affairs, and differentiating out the various State functions. On the other hand, the ICTs were and still are also developing in reaction to the challenges posed by this very evolution. As such, the ICTs are offering solutions to linking the different types of actors together, to bridging the various levels of public management, and to offering new ways of performing the various State functions.

3. From government to governance

In other words, we can identify a process of State transformation, whereby "government" increasingly evolves into "governance". This means that collective problems are more and more being solved by state and non-state actors collaborating across levels. Also, modern governance involves a growing separation of policy-making (moving to supra-national levels), from regulatory (staying at a national level) and service delivery activities (moving below and beyond the national level, namely to the private and the third sectors). This is the meaning of the concept of "governance", at least for political scientists.

However, one also needs to take into account the definition of governance by organizational and institutional specialists, as well as by (new) institutional economists. Here governance is defined in more abstract terms, namely as rules linking together actors (individuals and organizations). Actors pursue goals and are linked among each other by means of formal and informal rules. The so constructed system of rules creates institutions which in turn shape the behavior of the various actors. This is done by means of incentives the various rules create and to which the different actors respond.

We can now easily see how evolving government, as characterized by multiple actors, multiple levels, and differentiated functions (rules), can be described (in static terms) as a "governance system". Organizational specialists and institutional economists mainly focus on organizations as governance systems (e.g., corporate governance), In doing so, they study the way such governance systems organize so as to achieve particular objectives. Institutional economists, for example, are mainly focusing on how firms and firm governance can achieve optimal performance, i.e., ultimately shareholder value.

But we wanted to go further and apply this same conceptual framework not only to firms and the achievement of their financial objectives, but rather to "public governance systems" and collective problem-solving. Indeed, as States increasingly have to collaborate with non-state actors across levels and to combine different functions in order to solve collective problems, the usage of the sociological and

economic concepts of governance becomes more and more justified. In other words, not only firms but entire systems of actors have to organize in order to solve their collective problems (which by definition can no longer be solved by one single actor alone, be it even a government). The ICTs, we thought, would precisely help us do that, i.e., enhance the problem-solving capabilities of these newly emerging public governance systems.

4. From government to governance

In order to do that, one additional step had to be taken, namely the identification of clear governance functions to which the ICTs could then be applied. As seen above, collective problem-solving, in the age of globalization, increasingly differentiates into three separate functions, which however need to be combined if the problems want to be addressed efficiently and effectively. Indeed, services need to be delivered within a regulated institutional framework, which in turn needs to be legitimized by democratic participation and control. Let us thus examine in this section what governance means for each of these functions

- There is first the function of <u>service delivery</u>: as said above, service delivery is increasingly being outsourced, subcontracted if not flatly privatized. If, as a result of liberalization, public services are produced by the market, governance, here, would simply be reduced to the question of corporate governance. However, many public services are not being delivered by the market, mainly because there is no solvable demand or because does function well. Therefore, the production and delivery of public services requires generally much more complex governance structures than is the case of pure market services. Such complex governance structures involve, for example, partnerships between public and private operators, as well as all kind of subsidies and other mechanisms of public intervention into the market.

- There is secondly the function of <u>regulation</u>: as a matter of fact, and as a result of the transformation of the service delivery process, there emerges a serious need for regulation. Such regulation, in turn, has various aspects, and concerns not only the regulation of the (imperfect) (public) services market, but also all kind of technical regulations resulting from the fragmentation the public services chain, as well as regulation of citizen and consumer protection. One can easily understand how regulation can and must actually be conceived as being part of a governance structure and mechanism. As a matter of fact, the newly emerging regulatory institutions resulting from and responding to liberalization constitute particularly sophisticated governance structures and mechanisms, whereby numerous actors with highly diversified and often incompatible goals have to collaborate in order to solve the problem of (public) service production and delivery.

- There is thirdly the function of <u>policy making</u>: with outsourced public services and technocratic regulation, public policy making is particularly challenged to produce legitimation and viable solutions to collective problems. Policy making thus becomes an increasingly complex process by which state and non-state actors interact, often across different levels (e.g., from the EU level via the Nation-State to the local level). Again, governance appears to be

a particularly useful concept here, especially when it comes to describing and (optimally) designing such highly complex process of interaction among actors, who, again, generally pursue different, if not contradictory goals).

In short, and as shown above, the ICTs have a significant potential for collective problem solving. The have so far mainly been used in the area of public services delivery – something we call "e-government" – and they are currently being developed in the area of policy making thanks to ICT enhanced citizen participation mechanisms. Unfortunately, the ICTs have so far barely been used in the area of regulation.

5. From government to governance

With this conceptual framework of e-governance in mind we had subsequently embarked on our global learning journey as described in the beginning. It was a journey during which we all learned from each other: the participants learned from the professors and the practitioners, the practitioners learned from the participants and the professors and the professors learned from the participants and the practitioners. This book is the illustration and outcome of our global collective learning journey about e-governance.

We have asked ten participants, one manager and one professor of this collective global learning journey to write about a particular element of the above e-governance framework in the context they are most familiar with. The results are the following twelve chapters structured into four sections namely a section on the e-governance visions (contributions by Isabel Nshimbi and Serdar Orazbayev), a section on local e-governance (contributions by Sherif Aziz, Sarah Kagoda, and Erika Bagambiki), a section on transversal e-governance issues (contributions by Monis Aziz, Konstantinos Gakis, Agneska Dec and Vivek Rana) and a section on the future of e-governance (contributions by Jacques Gamboni, Gianluca Misuraca and Pierre Rossel). Follows a brief description of each of the chapters:

In Chapter 2 Isabel Nshimbi discusses three e-government applications: e-democracy, e-participation and e-voting and follows up with an analysis of the impact of these applications on the general population, government, and civil society/NGOs. The chapter examines the relationship between these three applications and introduces a framework capable of assessing their impact on the future of the democracy. Drawing on examples from India, the Balkans, the European Union, and Africa, the author establishes that the e-participation is low in most of the countries examined, with impacts on the future of democracy. Finally, the chapter outlines recommendation for the improvement of e-participation.

In Chapter 3 Serdar Orazbayev discusses the role of the ICTs in social and economic development of his country (Turkmenistan) and suggests that the political will of the government is key for successful e-government implementation. Particularly, the interest and aspiration of the head of state appears to be the most influential force for ICTs adoption in the public sector. The chapter also examines the government's ICTs adoption process in the public administration, health and education in Turkmenistan. It concludes with considerations about a National Strategy for ICT so as to crystalize the government's goals and objectives.

In Chapter 4 Sherif Aziz describes the ICT literacy initiative in Oman. Based on experimental research, the chapter reveals that the success of the digital society in an Arab country is mainly challenged by linguistic and information literacy, rather than by

computer literacy. The chapter therefore introduces an ICT literacy framework and a modified framework on access-for-opportunity for real access to ICT. The chapter concludes by stating that Oman is at the threshold of access to technology but has challenges with regards to cognitive access, access to content and as well as with regards to an enabling environment. The author suggests the development of an appropriate communication plan focusing on improving citizen trust.

In Chapter 5 Sarah Kagoda discusses e-tourism prospects in East-African Countries with a particular focus on the development of a regional strategy. The author proposes that introduction of e-tourism with a single website that would enable global visibility of the destination, while at the same time boosting the economy of the region. The chapter offers an extensive overview of the challenges and prospects of e-tourism and suggests marketing strategies for East-African e-tourism which may be useful beyond the region.

In Chapter 6 Erika Bagambiki investigates the usefulness of the ICTs for national reconciliation purposes in the case of Rwanda. The authors has conducted an empirical study, analyzing the reconciliation process in general and the role of the ICTs in particular. More precisely, she conducted an online survey with different stakeholders so as to assess the challenges and gaps in the access to information in Rwanda. The chapter concludes with concrete recommendation for implementing e-reconciliation in Rwanda, as well as with suggestions for future research.

In Chapter 7 Monis Aziz analyzes the various e-governance implementation challenges faced by a post-conflict country like Afghanistan. The chapter explores various ICT tools and techniques that can help and assist government officials, leaders, stakeholders and decision-makers adopt appropriate e-governance systems and state building mechanisms as part of post-conflict reconstruction efforts. Despite the specificity of each country, lessons from this Afghanistan case indicate that a sound mix of policies based on universally shared values, experience and the proper use of management systems and tools are crucial for every country emerging from conflict.

In Chapter 8 Konstantinos Gakis discusses the impact of e-governance initiatives on organizations with a particular focus on civil service and civil servants. The chapter particularly analyzes the relationships between ICTs and organization' looking especially at organizational design and organizational change. The chapter features two case studies from Bulgaria and Slovenia so as to explain the organizational benefits of using the ICTs to change organizational practices, roles and regulatory functions. The chapter concludes with a discussion of an organizational typology in regards to the use of the ICTs.

In Chapter 9 Agnieszka Dec addresses ICT adoption in developing countries. Developing countries face difficulties in developing widely available and affordable internet service because of cost of technology, profitability, backbone capacity, and international connectivity. The introduction of sophisticated technologies in developing countries is thus very often more costly. Mobile technology can mitigate this problem to a certain extent. More concretely, the chapter discusses ICT adoption in developing country like Armenia and suggests the development of Wifi and WiMax technologies also for developing countries.

In Chapter 10 Vivek Rana discuss the trends in matters of Enterprise Architecture (EA) for e-government. On the basis of empirical research, the chapter proposes an EA model for e-governance in post-conflict countries. While there are many success stories of EA implementation in developed countries, post-conflict and developing countries are still struggling to understand and implement an EA startup model that could

identify the main components of the Government and its information systems. The empirical research conducted by the author identifies different challenges and issues of EA in a post-conflict context and recommends a hybrid-model for EA that could appropriately respond to internal as well as to external challenges.

In Chapter 11 Jacques Gamboni argues that the intervention of the third sector in the development of local fiber optics infrastructure accessing the Internet is urgently needed so as to offer an alternative to re-monopolization or lack of service. The author shows that civil society increasingly demonstrates its unique capability to solve collective resources problems. The chapter builds on Elinor Ostrom's theory on sustainable Commons in order to develop a workable concept of so-called Internet Access Commons (IACs). The chapter then presents the examples of Switzerland (re-monopolization), Finland and the United Kingdom (third sector intervention) and offers concrete propositions for IAC projects.

In Chapter 12 Gianluca Misuraca provides an overview of the evolution of e-Governance with a special emphasis on the multidimensional role played by the ICTs. The chapter presents a conceptual framework for e-Governance which captures the co-evolution of various stakeholders with the political institutions at local, national and global level. The chapter further elaborates on the current state of e-Government, with a special focus on European policies. In its discussion section, the chapter then identifies the convergences and divergences in the e-Governance development paths. In doing so, the chapter proposes an original theoretical and interpretative framework capable of assessing the public values underpinning ICT-enabled governance.

In Chapter 13 Pierre Rossel discusses what he calls "the second generation e-government foresight". In particular, the chapter examines existing studies about e-government foresight so as to understand their possible contribution to the future of e-government model. According to the author, current foresight exercises are too restricted to the inputs of particular experts and are difficult to disseminate among other players and therefore need to be extended to users and potential users. The author argues that those who formulate e-government policies, models or theories should ground their recommendations on systematic foresight exercises.

Finally in the Chapter 14, the Concluding Chapter, editors tried to identify issues related to e-participation. In particular, we tried to highlight the available opportunities for citizen that influences them to participate in the e-governance and role of government to incorporate citizens views or comments on policy that are relevant to their livelihood.