

## Conceptualizing e-Governance



*Matthias Finger \**  
*Professor, Management of Network Industries,  
Swiss Federal Institute of Technology*

### ABSTRACT

---

*The goal of this article is not to offer judgment (positive or negative) about the evolution of e-government. Rather, I will take this evolution as a given. Instead, I would like to develop a conceptual framework which will allow me to make sense of this evolution and ultimately to somewhat steer the usage of Information Communication Technologies (herein: "ICT") in the transforming State. Therefore, in the first section I will present the overall framework, within which, I think e-activities in the public sector have to be located. In the second section, I will then conceptualize governance. In the third section, I will crystallize the three main elements that currently make up e-governance, namely policy-making, regulation, and service delivery. Finally, I will link ICT with these three aspects of governance.*

---

\* Matthias Finger, PhD, Political Science, PhD, Adult Education (both University of Geneva) is currently Chair and Professor of Management of Network Industries as well as Dean of the School of Continuing Education at the Swiss Federal Institute of Technology (EPFL, Lausanne). He is also Director of the Executive Master in e-Governance Program: <http://egov.epfl.ch> .



**T**he European Commission, along with national governments, has been actively promoting numerous e-government initiatives. As a result of these initiatives, services are being digitalized, portals are being created, digital signatures are being authorized, health cards are being accepted, votes are being cast electronically, and much more. Initiatives for these activities come from numerous sources, such as governments themselves, regional and local authorities, consulting firms, private companies that have 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 do slowly change, sometimes into the desired direction. Public services are easier to access, information is easier to obtain, fines get processed more rapidly and votes are being counted faster.

The goal of this article is not to offer judgment (positive or negative) about the evolution of e-government. Rather, I will take this evolution as a given. Instead, I would like to develop a conceptual framework which will allow me to make sense of this evolution and ultimately to somewhat steer the usage of Information Communication Technologies (ICT) in the transforming State. Therefore, in the first section I will present the overall framework, within which, I think e-activities in the public sector have to be located. In the second section, I will then conceptualize governance. In the third section, I will crystallize the three main elements that currently make up e-governance, namely policy-making, regulation, and service delivery. Finally, I will link ICT with these three aspects of governance.

## **OVERALL CONCEPTUAL FRAMEWORK: FROM GOVERNMENT TO GOVERNANCE**

I think that all these numerous e-activities, e-products, and e-services which are currently being displayed in the public sector cannot be fully understood, appreciated, and assessed if they are not placed within the much broader framework of State transformation. Indeed, it is my firm conviction that “State transformation”, as I call it, does constitute the underlying process, which then enables ICT to take root. It is therefore imperative to first present this underlying State transformation.

Of course, I cannot present here my theory of State transformation. I can only summarize the main idea, which is that the State is changing basically as a result of globalization of the past 20 years. This change has in my view three separate dimensions, namely:

- The growing emergence of non-state actors, basically transnational corporations (TNCs) and non-governmental organizations (NGOs).

Increasingly, the State has to share its power with these non-state actors. Such power sharing is most pronounced at the supra and infra-national levels.

- The growing emergence of levels of managing public affairs, other than the nation-state level. I am thinking here in particular of the emergence of supra-national levels (EU, global), as well as of infra-national levels (local, regional).
- The growing separation of the State's three main functions, 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, which leads to the fact that public affairs become more and more fragmented (functions), diluted (levels) and outsourced (to non-state actors). ICT are part and parcel of this evolution which they sustain, as well as react to. The main idea I would like to promote here is a dialectical one: on the one hand, ICT are actively pushing further this evolution of State transformation, thus favoring ever more non-state actors, multiplying levels of managing public affairs and separating the various State functions. On the other hand, ICT are also developing in reaction to the challenges posed by this very evolution. As such, ICT are offering solutions to link the different types of actors, able to bridge the various levels of public management and offer new ways of performing the various State functions.

## CONCEPTUALIZING GOVERNANCE

So far, I have presented the process of State transformation. In particular, I have tried to show a process whereby "government" increasingly evolves into "governance". This means that collective problems are being solved more and more by state and non-state actors collaborating across levels. Also, modern governance involves a growing separation of policy-making, from regulatory and service delivery activities. This is the meaning governance has for the political scientist and the international relations specialist.

However, one also needs to take into account the definition of governance of organizational and institutional specialists, as well as by (new) institutional economists. Here governance is defined in more abstract terms, as rules linking together actors (individuals and organizations). Actors pursue goals and are linked to 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. It is not necessary here to go into more detail, at this point to describe the various economic and social relations the different actors entertain among themselves. These relations are respectively described by (neo-) institutional economists and organizational sociologists.

However, we can now easily show the new situation described in the first section and 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 I would like to apply the same conceptual framework not to firms and the achievement of their financial objectives, but rather to public governance systems and their collective problem-solving. Indeed, as States increasingly have to collaborate with non-state actors across levels and 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 cannot be solved by one single actor alone).

## **GOVERNANCE ACROSS FUNCTION**

As seen in the first section, collective problem-solving increasingly divides into three separate functions, which however need to be combined if the problems want to be solved. Indeed, services need to be delivered within a regulated institutional framework, which in turn needs to be legitimized by democratic participation and control. Let me however briefly examine in this section what governance means for each of these functions.

- There is first the function of service delivery: as mentioned above, service delivery is increasingly being outsourced, subcontracted if not flatly privatized. If, as a result of liberalization, these services are produced by the market, governance here would simply be reduced to the question of corporate governance. However, many public services are not simply delivered by the market. Therefore, the production and delivery of public services generally requires much more complex governance structures than is the case of market services. Such complex governance structures involved, 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 regulation: as a matter of fact, and as a result of the transformation of the service delivery function, 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 of the public services' chain, as well as regulation of public policy objectives. One can now easily understand how regulation can be described as 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 policy making: with outsourced public services and technocratic regulation, public policy making is particularly challenged to produce legitimization 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 processes of interaction between actors, who, again, generally pursue different, if not contradictory goals).

As said above, all three functions – with their own respective governance problems, mechanisms and structures – need to be articulated so as to produce optimal collective problem solving. This articulation, in turn, can also be described as a governance mechanism and structure, yet this time at a higher level. Neither in each of the above functions, nor in this more aggregate articulation, is the Nation-State any longer totally in charge. Most of the time, the Nation-State is simply one of the actors who has to share its power with firms, non-governmental organization, infra-national public entities such as cities, but also supra-national public entities such as the European Commission.

## **e-GOVERNANCE**

Let me now introduce the (new) ICT into this broad conceptual framework as outlined in the previous three sections. Institutional economists in particular highlight numerous governance problems resulting from imperfect contractual relations among actors. Let me mention here in particular information asymmetry, asymmetry of pre-contractual beliefs, risk non-neutrality, as well as cost non-neutrality of contract execution.

It is now easily understandable how ICT relate to governance: as a matter of fact, they can either mitigate or exacerbate each of the above four governance problems. For example, ICT can significantly reduce information asymmetries if both contractual parties do indeed have access to these technologies. However, if such access is unequally distributed, the same information and communication technologies will worsen information asymmetries and by doing so significantly exacerbate governance problems. The same reasoning can be applied to the other three problems institutional economists have identified. In all cases, ICT simultaneously enhance and help solve governance problems. Let me illustrate this with regards to the three above functions that are service delivery, regulation, and policy making:

- “*e-Government*” describes the active use of ICT for the purpose of public services delivery: service delivery is indeed the function where ICT have, so far, made the most spectacular inroads. From an institutional economics perspective, it appears clearly that transaction costs and information asymmetries have been reduced, and productive efficiency has been increased, for example. This is not to

mention the fact that, in addition, ICT have given rise to totally new services, which often come on top of the traditional public services.

- As for regulation, there are, so far fewer examples of active usage of ICT. However, as we have seen above, regulation gives rise to particularly complex governance structures and problems. It can therefore be assumed that the active usage of ICT for regulatory purposes would be particularly beneficial. This could be for example the case when reducing information asymmetries between consumers and service producers/deliverers, between regulators and operators, or between political authorities and the regulators they are supposed to ultimately supervise. I would like to create, in order to describe the usage of ICT for regulatory purposes, the concept of “*e-regulation*”.
- When it comes to the policy making process – especially a process which encompasses state and non-state actors as well as multiple levels – ICT have been, so far, little used. There are of course experiences of e-voting, but these experiences are closer to e-government activities (i.e., the digitalization of production processes) than they are to new forms of governance of democratic processes. Again, I think that ICT can significantly improve such governance processes, for example by reducing the asymmetry of pre-contractual beliefs, and thus by leveling the playing field among the various actors involved in political decision making. This usage of ICT for democratic decision making processes and purposes may be referred to as “*e-participation*” or “*e-democracy*”.

In short, and as I have shown, ICT are so far being systematically used in only one of the three functions which make up collective problem solving. Their potential is thus significant. This is without mentioning the big potential of ICT when it comes to linking these three functions across actors and levels and thus to improving governance and collective problem solving in the broadest sense.