

# From e-Government to e-Governance? Towards a Model of e-Governance

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**Abstract:** This paper is conceptual in nature: in it, we seek to identify the current trends of State transformation, combine them with the changes in the new information and communication technologies, and extrapolate this combination into the near future. More precisely, the goal of the paper is to analyze how the New Information and Communication Technologies shape the newly emerging governance mechanisms at local, regional, national, European, and global levels. It furthermore aims at developing a conceptual model in order to understand the evolution towards e-governance, as well as assessing its positive and negative implications for the State and the society at large. Finally, it compares our model with the currently existing definitions and conceptualisations of e-governance and e-government.

**Keywords:** State transformation, e-governance, e-government, e-regulation, e-democracy

## 1. Introduction

The State – both in the North and the South – has undergone substantial transformation over the past 15 to 20 years. This in turn is the result of a series of pressures and factors, which, in our view, have made the State adapt to a new, increasingly global, environment. Today's role of the New Information and Communication Technologies (NICTs), we claim, cannot be properly understood if not placed within such broader State transformation. Rather, we see the NICTs as coming on top of these pre-existing trends of State transformation, while enhancing in particular some of these trends. Indeed, the role these NICTs already are playing and increasingly will come to play, will inevitably influence the way the State will transform and evolve in the future. So far, we can only speculate about the outcome.

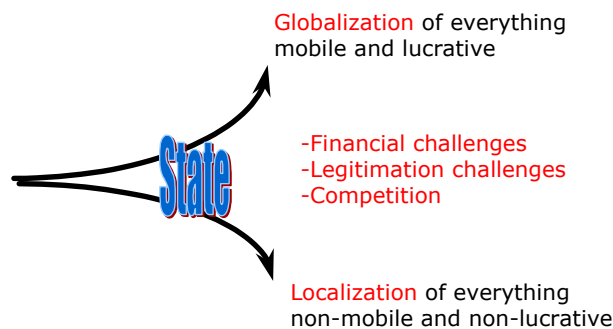
This paper is thus structured into the following five sections. In a first section, we will analyze the past process of State transformation and identify its main dimensions in the areas of policy-making, regulation, and operations. In a second section, we will define the precise role the NICTs already have come to play in such State transformation, identifying in particular the changes they introduce in the State's everyday operations. In a third section, which will be more speculative in nature, we will outline the implications of the NTICs on future State transformation. This will lead us, in a fourth section, to developing a model of e-governance, against which we will briefly assess, in a fifth section, current definitions and conceptualizations of e-governance and e-government.

## 2. Key past dimensions of State transformation

In this section, we want to identify the main dynamics and dimensions of State transformation over the past 20 years. In order to do so, it is necessary to better understand the reasons for such transformation. As a matter of fact, the recent transformation of the State has to be placed within the larger context of globalization. And, in this context, State transformation has essentially been synonymous with the modernization of the State's operational activities. At the same time, as we will develop below, such modernization of the operational activities has led to the separation of the State's main three functions (e.g., operations, policy-making, and regulation), leading to the redefinition of these functions at local, regional, global, and national levels.

Given the limited space available, we would like to introduce the main challenges the State is confronted to in the age of globalisation in graphic form:

## Main challenges for the State in the age of globalization



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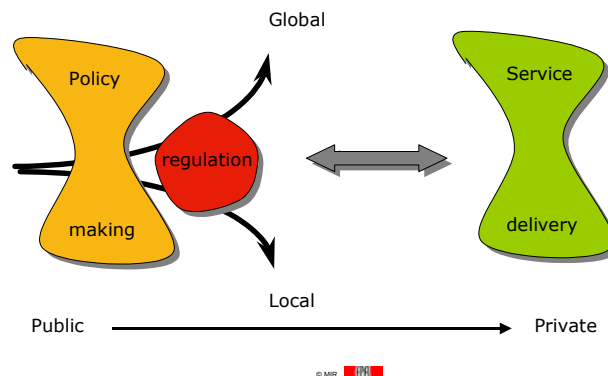
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In short and as a result of globalisation and simultaneous localization, the State is confronted to three structural challenges, namely financial and legitimation challenges, as well as the challenge to face competition from other States. The State has adapted to these challenges, so far, mainly by improving upon its operational, as opposed to its regulatory or its policy-making functions. In particular, the State has sought to reduce financial pressure by having the citizens pay for the services, it has sought to increase its legitimacy by improving the quality of its services, and it has sought to become more competitive by modernizing service delivery. As a result of what we call “operators’ modernization”, public services are increasingly being delivered in a very similar way than private operators would deliver them, if they are not directly delivered by private or third sector operators. As a matter of fact, potentially, all public services not only can, but most likely will be modernized, and probably ultimately operated by private or third sector actors. Such involvement of non-State actors in service delivery is likely to further accelerate the above identified trends towards simultaneous globalization and localization, and by doing so to contribute to even bigger pressure on the State.

Also, and as we will see below, this modernization of the State’s operational functions is likely to be strongly affected by the NICTs, as NICTs are a significant factor in improving productivity, efficiency, but also transparency of services. On the one hand, this will contribute to easing the financial, the competition and even, though to a lesser extent, the legitimation pressures on the State. But on the other hand, NICTs will also further accelerate operators’ modernization. As a matter of fact, most of what has been labelled e-government so far is in fact not much else than the “digitalisation” of the State’s operational functions. In this sense, e-government perfectly fits into the current public sector reform efforts.

Obviously, the modernization of the State’s operational functions is not without consequences for the State itself. We have already seen, above, that the State is increasingly torn apart between the global and the local, and this on all relevant dimensions, be they commercial, technological, financial, social, ecological, or cultural. As a result of this evolution, the State is increasingly challenged to accept that its core functions – which are (1) service delivery, (2) policy-making, and (3) regulation – also take place at below and above national levels. This is particularly the case of the service delivery and the policy-making functions. Service delivery is indeed more and more taking place below and above nation-state levels, mainly because the (private or Third sector) operators delivering such services are in the process of restructuring at supra- and infra-national levels. This up- and downward trend is, though to a lesser extent, also observable when it comes to policy-making. This is because both global constraints and local demands push for a growing involvement of non-state actors in policy-making at the levels the non-state actors are most active, namely precisely above (regional) and below (regional and local) the nation-state. The following graphic summarizes this evolution:

## Implications of operators' modernization



Yet another implication of such operator's modernization is the fact that, in order to keep the so triggered dynamics (e.g., privatisation) under control, the State has to significantly develop its regulatory activities, and this in especially at the national level. Furthermore, governments keep a close eye (and control) over such regulatory activities, mainly for reasons of effectiveness, but also for reasons of not wanting to lose further power vis-à-vis non-state actors.

This evolution leads to the fact that both policy-making and service delivery are increasingly going to take place, besides at a national, also at supranational (regional, global) and infra-national levels (regional, local), while regulation will remain, at least for the time being, mainly national. This also means that non-state actors will increasingly become involved in decision-making, especially at the supra- and the infra-national levels, a phenomenon which has come to be called "governance". To recall, the involvement of non-state actors in service delivery, instead, has come to be called "public-private-partnerships".

### 3. The role of the NICTs in the modernization of the State's operational activities

We have presented, so far, essentially a certain conceptualisation of the State transformation, which is currently taking place both in industrialized and developing countries. Our hypothesis is that the NICTs will, at first, simply "fit" into the above trends and dynamics of State transformation, while probably enhancing – and perhaps to a certain extent also re-directing – them. To recall, so far these dynamics have mainly been characterized by operators' modernization, i.e., by the fact that the State's operational activities have been made more efficient and more effective. It is therefore only logical that the role of the NICTs has been observed, until now, almost exclusively in this operational area.

Indeed, the NICTs already significantly do and in our opinion increasingly will play a crucial role in improving the State's operational activities. As proof one may take the numerous e-portals, e-taxes, e-forms, e-voting, and others more. All these pertain, in some way or another to improving operations. This is the case even of e-voting, as nothing is altered in the democratic process, and only the act of voting is somewhat digitalized and made more "efficient". We may even say that what is called today "e-government" is basically synonymous with the digitalisation of some of the State's operational activities, even though one must admit that the consequences and implications of such digitalisation may not yet be predictable.

Some authors have tried to classify the various uses of the NICTs by the State, and have distinguished three levels of interaction between the customers/citizens and the administration (Enquête mondiale sur la gouvernance en ligne, 2000). In particular, they distinguish between one-way information (e.g., information portals), interaction (e.g., filling out forms and submitting them via internet), and transaction (e.g., advice or consultations via internet). In reality,

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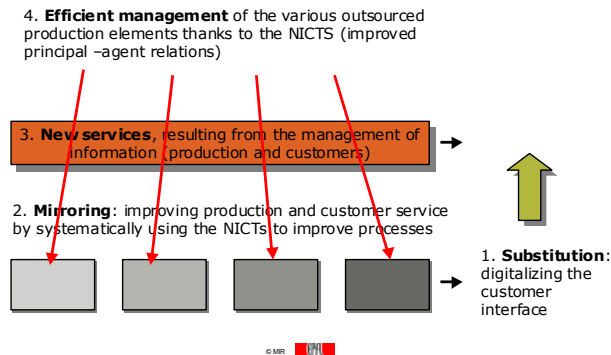
however, all three levels still do not change the way the services are being produced, and basically only alter the medium by which the citizen/customer interacts with the administration, not to mention the fact that we are mainly talking so far only about operational services delivered by the administration.

But, in our view, this is in fact only a very first step along the way of NICTs' coming to play a role in the modernization of the State's operations. We can label this first step "substitution", as traditional paper or interactive services are simply being digitalised or substituted by an electronic interface, without however changing the way the services are produced. In other words, the NICTs have, so far, somewhat changed the interface with the citizen, i.e., the way services are delivered, but so far they have not changed the way the services are being produced. One has to look at the transformation of current production or logistics chains in order to fully understand how the NICTs are going to further affect the way public services are being produced (and delivered). Indeed, beyond substitution, we can identify three additional steps in the way State operations are going to be transformed by the NICTs. These are: (1) mirroring, (2) new digital products, and (3) total outsourcing of production. Let us briefly comment on each of these three steps (four if one includes substitution):

- Substitution: as said, the first step in using the NICTs in the transformation of operations simply pertains to the digitalization of the interface with the customer, thus substituting the traditional interface with a digitalized one. So far and in our opinion, most of what has been done in terms of e-government pertains to such substitution.
- Mirroring: the next step in the use of the NICTs in the modernization of the State's operational activities pertains however to substantial changes in the way the services are being produced. At first, the NICTs will merely be used to improve the production process, while simultaneously improving customer service. This is for example the case when the customer is able to follow a file through the maze of the administration by means of some tracking and tracing function.
- New services: in a third step, then, new services are being created thanks to the management of the information about the production process and the customers. Most of these services will of course be distributed via the internet or other technology based interfaces (SMS, etc.). As an example one may take statistical information on administrative performance (e.g., time it takes in average to receive a permit). At this point, it will no longer be obvious that all these new services will be produced by the State. It might well be that private operators become much more innovative than the State when it comes to developing such new services.
- Efficient management of the outsourced or privatized services will become the next (and may be final) step in the transformation of the State's operational activities. Indeed, the NICTs allow for a much more efficient management of the principal-agent relationship, thus leading to the fact that most operational activities can be steered and controlled by means of managing the information only. This, as we will see below, constitutes actually a significant step towards a regulatory role of the State.

The following graphic summarizes these four steps in modernizing the State's operational activities by means of the NICTs:

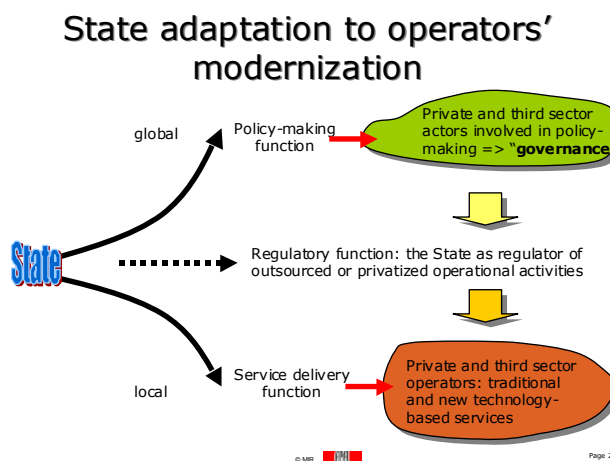
## The roles of the NICTs in operations' modernization



### 4. Implications of the new role of the NICTs on future State transformation

This transformation of the operational activities – a process, as argued above, significantly enhanced and accelerated by the NICTs – carries serious consequences for the State. Indeed, from a provider of services, the State increasingly transforms into a regulator of outsourced or privatized services, or more generally into an “information manager”. In parallel, its third function, i.e., policy-making, does not remain unaffected by these changes either. In other words, the issue we would like to highlight here is how the State reacts to the transformation of its operational activities, and how the NICTs will (or may) play a significant role in this reaction.

The following graphic summarizes this evolution:



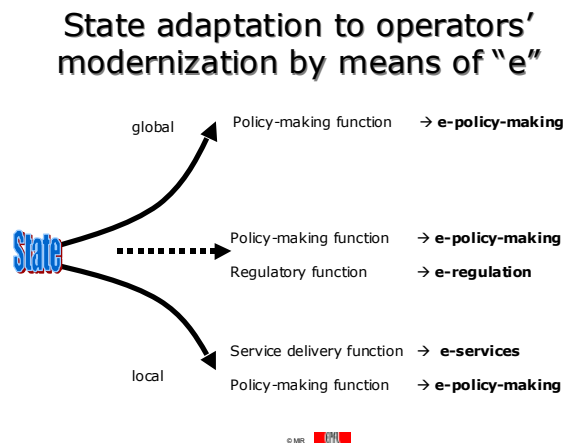
Indeed, in a first and immediate step, the State must ask itself the question of how to ensure and control the provision of the (outsourced or otherwise autonomised) services. To recall, – as argued above, and thanks to the NICTs – the State no longer produces the services, but manages the providers of the services, including the new services that the private providers increasingly develop. From now on, the State has to monitor the provision and the providers of the services, along with their quality, their prices, as well as citizens' accessibility to them. In other words, once the operational functions have become autonomised, the State's particular role will be to guarantee the provision of these autonomised services. We think that this supervisory – or rather regulatory – function can be significantly enhanced by the NICTs. As a matter of fact, one may even ask whether the use of the NICTs in monitoring autonomised

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services and service providers is not, to a certain extent, a prerequisite for ensuring their quality and even their delivery. We would like to label this new function “e-regulation”, by which we mean the use and application of the NICTs to supervising – or rather regulating -- the autonomised services.

But, as we have seen above, there is – parallel to the growing role of the NICTs – an evolution taking place towards involving more and more non-state actors into the main State activities, in particular in decision-making and policy-formulation, a phenomenon which has come to be called «governance». Simultaneously, we witness a movement towards globalization and localization, whereby State power (as well as decision-making and managerial autonomy) is increasingly shifted upwards (global, regional) and downwards (local, regional). Not astonishingly, new governance mechanisms and practice can therefore first be found above and below the nation-state level (e.g., global governance, local governance). Again, one may ask whether and to what extent the State and the new political entities above and below the Nation-State level will make use of the NICTs in order to improve decision-making and policy formulation. This is the phenomenon or practice we would like to call “e-policy-making” or “e-democracy”. But unlike e-regulation, e-policy-making will occur primarily above and below the nation-state level.

The following graphic summarizes the potential role the NICTs can play in the three evolving State functions, i.e., service delivery, the monitoring thereof (e.g., e-regulation), and policy making:



In short, the main questions now are: (1) how and to what extent does the State make use of the NICTs in order to provide better services, often in partnership with the private sector and civil, society organizations (*e-government*)? (2) How and to what extent does the State make use of the NICTs in order to better regulate, and by doing so ensure public service (price, quality, accessibility) (*e-regulation*)? (3) And finally how and to what extent does the State make use of the NICTs in order to improve its rule-making function, i.e., by better involving the various societal actors into decision-making (*e-democracy*). In other words, e-governance is composed of the three above elements, namely e-government, e-regulation, and e-democracy, yet is more than the simply addition of these three elements.

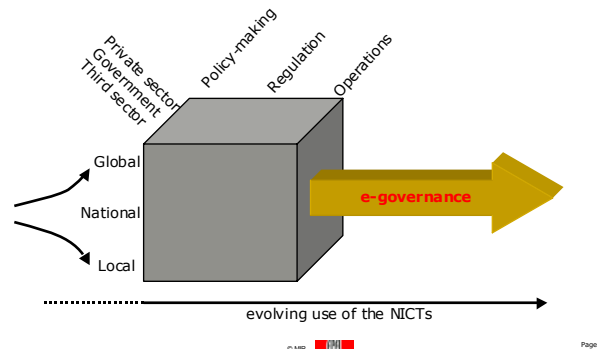
## 5. Our model

Our model of e-governance derives entirely from the above considerations. In other words, it distinguishes between three different policy-levels, between three different types of actors involved, between three different policy functions, and between three different degrees of making use of the NICTs.

- Levels: as we saw above, parallel to globalisation do arise other policy levels, in particular a global and simultaneously a local level, as well as intermediate regional levels (above and below the nation-state). If the State is not simply bypassed by these new policy levels, it at least has to find ways to articulate its actions (e.g., decision-making, operations, and regulation) with the actions going on at these various levels. Also, parallel to these levels, new actors emerge, who are in turn particularly active at the different levels.
- Actors: indeed, and in parallel to the emergence of different policy levels, there emerge new actors, who become increasingly involved in policy-making, service delivery, and to a lesser extent regulation. One must mention here in particular private actors, as well as actors from civil society, including consumer organizations, especially when it comes to services.
- Functions: the above transformations lead, as we have seen, to a much clearer distinction of the State's three main functions, namely operations, policy-making, and regulation. Even though the State has always assumed these three functions, globalisation and especially liberalization force it to separate more clearly each of these three functions. The policy-making function, for example is increasingly being split between the global, the regional, the national, and to a lesser extent the local levels, involving each time actors from civil society and the private sector. More or less the same can be said of the operational function, from which the State is increasingly withdrawing. The regulatory function, instead, will remain mainly at the nation-state level and involves non-state actors (e.g., consumer organisations) only to a very limited degree. However, more recently one can also observe the shifting of the regulatory function upwards, for example in the European Union.
- Use of the NICTs: as said above, it is generally distinguished between three different degrees to which the NICTs can be used as part of current State transformation, namely information, interaction, and transaction (GCSI 2000). Information is certainly the lowest level of interfacing between the citizens and the State. Generally, such information has an educational dimension and can mostly be found on governmental websites. Interaction defines a use of NICTs, whereby citizens or other actors can also communicate with the State, be it in policy-making or regulation. Transaction, finally, is an even deeper use of the NICTs, whereby the citizens participate more actively in the State, mostly in the function of policy-making. While this distinction between information, interaction, and transaction is certainly useful, it does not, in our view, fully cover all the potential uses of the NICTs along the process of current State transformation. However, we will use this distinction for the time being and for lack of better concepts.

For us, therefore, e-governance is the combination of all four above aspects. In other words, it is a dynamic concept, which implies the growing use of the NICTs for the three State's main functions (e.g., e-government, e-regulation, and e-democracy), increasingly involving non-state actors at levels other than the national one. The following graphic summarises this view:

## Our model of e-governance



### 6. Comparison of our model with current definitions and conceptualisations of e-governance

In this section, we want to confront our above developed model of e-governance to the currently prevalent definitions and conceptualisations of e-governance. As a matter of fact, and when looking at current literature, one can identify three main conceptualisations of e-governance, namely (1) e-governance as customer satisfaction, (2) e-governance as processes and interactions, and (3) e-governance as tools.

#### 6.1 E-governance as customer satisfaction

The first and probably most widespread conceptualisation refers, in our view, to customer satisfaction. Indeed, the term e-governance is not only used here as being synonymous of e-government, it is moreover synonymous with satisfying the citizen/customer by means of delivering the services through the internet. This is for example the case of the “rapport de l'enquête mondiale sur la gouvernance en ligne” (2000), which tells us that

*«la gouvernance en ligne recouvre les initiatives prises sous l'égide de l'Etat pour assurer par des moyens électronique la prestation de services d'information et la participation des citoyens à la gestion des affaires publiques. Elle désigne également le fait d'offrir aux citoyens la possibilité d'accéder par l'informatique à une information, à un service en ligne ou un dialogue avec l'administration à tous les niveaux».*

More generally, this is the view of promoters of new public management, who see in the NICTs a significant contribution to and next step in improving service delivery, and especially customer satisfaction (e.g., Kuno Schedler & al. 2003).

For this conceptualization, the main unit of analysis is the government or rather the administration, whose interface with the citizens the NICTs are said to be going to improve. As a matter of fact, citizens are seen here as more or less passive recipients of digitalized information and services, i.e., as customers. Quite logically, the third sector, for example, is not mentioned, and the private sector is merely seen as another recipient of government services. In other words, at the heart of this conceptualization it is not the process to which the NICTs are being applied, but merely the delivery of information and sometimes services. Needless to say that this conceptualization also does not take into account the possible other policy levels that the State may need to cope with. Besides, this conceptualization does not mention the emergence of non-state actors who become increasingly involved in policy-making, service delivery and to a lesser extend regulation. Finally, it does not provide either for the different



functions of the State, limited as it is to the service delivery or operational function. Finally, this conceptualization limits its analysis to the first two steps where the NICTs may play in State transformation, namely substitution and communication.

## **6.2 E-governance as processes and interactions**

In the second conceptualization e-governance is seen as a decisional process. Says, for example, the International Centre of e-governance ([www.icegov.org](http://www.icegov.org)):

*“Governance is not government, nor is it the act of governing. It is more usefully seen as a process: the process by which institutions, organisations, companies and societies 'guide' themselves. It is also about how these bodies interact with each other, with their 'clients' and with the public. At its most basic level, it is about how society organises itself for collective decision making, and also provides transparent mechanisms for seeing those decisions through. E-governance is a shorthand term for the use and impact of technology, in particular information and communications technology (ICT), in governance systems.”*

Similarly, the E-governance Institute of Rutgers University states ([www.newark.rutgers.edu](http://www.newark.rutgers.edu)):

*“E-governance involves new channels for accessing government, new styles of leadership, new methods of transacting business, and new systems for organizing and delivering information and services. Its potential for enhancing the governing process is immeasurable.”*

Here, the focus is clearly on processes and interactions, which the NICTs are said to foster or at least to facilitate. Potentially, the conceptualisation could also be extended to transactions. However, the view of the State remains quite traditional: indeed, it is interactions between the citizens and the private sector on the one hand and the State on the other. However, the State remains always at the centre, be it as an actor or as a level. In terms of policy functions, this view is broader than the previous one, as it sees interactions both in policy-making and in service delivery. We think that this conceptualisation has certainly the biggest potential when it comes to taking into account future evolutions of both governance and technologies.

## **6.3 E-governance as tools for government**

The third conceptualisation sees e-governance as a set of tools in the hands of government, or rather in the hands of the administration. In other words, the starting point here is not the State or its transformation, but the possibilities the NICTs offer. Says the Commonwealth Centre for Electronic Governance ([www.electronicgov.net/pubs/research\\_papers/eged/chapter1](http://www.electronicgov.net/pubs/research_papers/eged/chapter1) pp.11-12-17):

*“e-governance is a tool. And like any other tool, no matter how powerful, it has limited value and relevance in itself. Its value arises from its application to specific goals and objectives. E-governance is really about choice. It is about providing citizens with the ability to choose the manner in which they wish to interact with their governments.” ... “E-governance is the commitment to utilize appropriate technologies to enhance governmental relationships, both internal and external, in order to advance democratic expression, human dignity and autonomy, support economic development and encourage the fair and efficient delivery of services.”*

Not astonishingly, e-governance is not structured along concepts of State transformation, but rather along technological possibilities. Says Perri, one of the representatives of this conceptualisation of e-governance (Perri 6. (2002). p8):

*“one way to classify e-governance systems is roughly according to the main tool for which they are used. There are tools for (1) generating understanding simple data,*

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*(2) collecting data or observations through search agents, (3) organizing and analyzing data on events, conditions, problems and processes, (4) supporting communication and transaction e-mail, electronic conferencing, video-conferencing systems, (5) modeling decisions and advising on possible consequences spreadsheets, (6) and environments that provide integration and storage for the other categories.”*

Roger W'O Okot-Uma from the Commonwealth Secretariat, another key proponent of this conceptualization goes even further by introducing the normative concept of “good governance”. Indeed, he says ([www.electronicgov.net/pubs/index.shtml](http://www.electronicgov.net/pubs/index.shtml) p.5.),

*“e-governance seeks to realise processes and structures for harnessing the potentialities of information and communication technologies at various levels of government and at the public sector and beyond, for the purpose of enhancing good governance”.*

Better governance, thanks to the NICTs, would improve, according to W'O Okot-Uma, democracy and ultimately peoples' lives.

In other words, this conceptualization is characterized by an eclectic combination of quite un-reflected uses of the NICTs on the one hand and visionary (or even normative) statements on democracy and “good governance” on the other. It clearly puts the NICTs before the State, and actually operates with a quite simplistic, in our view old-fashioned, and in any case naïve vision of the State. In particular, it is not dynamic, as it does not see the implications of the NICTs on operations, nor on State transformation. We think that this conceptualization of e-governance is certainly useful for promotional purposes, but it does not help us when it comes to analysis and research.

### **6.4 Conclusion**

We have tried to summarize, in this section, the main three currently prevalent conceptualisations of e-governance and confront them to our own model. This confrontation shows, in particular that we still have quite different understandings of what e-governance is, ranging from naïve and promotional views (e-governance as tools for democracy) to simplistic and unambitious ideas of using the NICTs for enhancing service delivery only (e-governance as customer satisfaction). The most promising conceptualisation is without doubt the one, which sees e-governance as dynamic process, i.e., mainly as an enhancement of interactions between actors (citizens, consumers, administration, private sector, third sector). This conceptualisation also comes closest to our model, which however goes further, as we are not limited to interaction but go beyond (e.g., transactions), and as we would also like to see transactions between levels (local, regional, State, global), as well as between functions (operations, policy-making, and regulation).

The following graphic summarizes these three conceptualisations and confronts them to our model.

### Three main conceptualizations of e-governance

	E-governance as customer satisfaction	E-governance as processes and interactions	E-governance as tools
Policy-levels	National, evtl. local	National, local	National, evtl. local
Actors	Consumers, administration	Public and private	State
Policy functions	<b>Operations, service delivery</b>	Operations and policy-making	Mainly service delivery
Use of NICTs	Substitution and communication	<b>Interaction</b>	<b>Technology driven</b>



## 7. Conclusion

In this paper, we have first outlined our view of how the State transforms in the age of globalization and then made the assumption that the NICTs will not only fit into this overall process, but moreover enhance it and probably drive it further. This is indeed the underlying bias of our model of NICTs' enhanced State transformation presented in section 4. In section 5, then, we confronted this model to the three currently dominant approaches one finds when analysing the literature on e-governance. More precisely:

- we have identified a first conceptualisation, which sees e-governance mainly as the continuation of new public management efforts, in particular when it comes to the aspect of service delivery and customer satisfaction;
- a second conceptualisation, which sees e-governance mainly as the further development of all kind of processes and interactions, but especially the interactions between the citizens and the State; and
- a third conceptualisation, which is mainly technologically focused, and thus sees all kinds of optimistic future possibilities for technologically enhanced democracy.

Regrettably, all three conceptualisation still operate with a quite traditional and mostly static view of the State, focused as they are on national and to a lesser extent on local government. In terms of actors, all conceptualisation do not go much beyond the fact that besides citizens the State now also needs to take into account consumers and the private sector. No mention, for example, is made of the third sector, and civil society organizations more generally. In terms of functions, the first conceptualisation is exclusively focused on operations and service delivery, while the other two conceptualisations also include policy-making. However, no mention is made of regulation, and the new role the NICTs could play here. Finally, and when it comes to the uses of the NICTs, one can say that the first and the third conceptualisation are mainly limited to substitution and communication, while the second conceptualisation is essentially focused on interactions. However, no mention is yet made of transactions. Overall, one can say that all conceptualisation display little understanding of how the NICTs fit into current processes of State transformation, even though the second conceptualisation is certainly the most dynamic one and thus the one best suited to take current State transformation into account.

A final question pertains to the distinction between empirical description on the one hand and normative statements on the other. If the third conceptualisation is essentially normative and thus, in our view, naïve and optimistic, the other two conceptualisations are empirical in nature. As such, they do indeed describe certain empirically observable phenomena of "e-governance", and thus can lead to research projects studying the emergence and evolution of e-governance.

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However, we think that these two conceptualisations – especially the first one – capture only a very narrow aspect of the potential use (and to a certain extent already practices) of the NICTs in current State transformation, limited as they are to operations and policy-making (excluding regulation), to the public and the private sectors (excluding the third sector and civil society more generally), to the national and local levels (excluding the regional and global levels), and to substitution, communication, and interaction (excluding so far transactions).

We thus think that our model – while building on the first and second conceptualization – could significantly enlarge and innovate the research agenda in the field of e-governance, by putting research on e-governance into the broader context of State transformation and the future of the State more generally. In its most abstract sense, the underlying research question this paper leads to is thus *how the NICTs will (or will not) contribute to redefining the practice of governance in the future*. To recall, we understand governance in dynamic terms as well as in a broad sense, encompassing policy-making, operations, and regulation at all levels of society, i.e., from local to global, and involving all stakeholders in one form or another.

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