Exploring emerging ICT-enabled governance models in European cities

EXPGOV Project

Literature Review:
multi-level governance and ICTs

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This document has been prepared by Gianluca Misuraca, Scientific Officer at the Information Society Unit of IPTS, as part of the Research Line on ICT for Governance. The document is based on the preliminary analysis conducted as part of the Exploratory Research on Emerging ICT-enabled governance models in EU cities (EXPGOV).

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For more information about the EXPGOV Project visit: http://is.jrc.es/pages/EAP/EXPGOV.html
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0. Management Summary

Background
The Information Society Unit of the Institute for Prospective Technological Studies (IPTS) of the European Commission's Joint Research Centre is conducting an exploratory research on ICT-enabled governance models in EU cities (hereinafter referred to as EXPGOV).

The EXPGOV Project aims at deepening the understanding of the interplay between ICTs and governance processes at city level in the EU by providing evidence of the changes that ICTs are producing on city governance models.

The focus of the research is on the way the different stakeholders interact when introducing ICTs in governance systems and the way these interactions affect institutions and communities, and the related decision-making process. Two main issues will be specifically investigated: 1) the changes produced by ICTs on the governance processes, (e.g. regulatory and legal frameworks, organisational and administrative procedures, roles of various stakeholders involved, etc.) and consequently the effects on decision-making, public management and service delivery; and 2) the socio-economic implications at policy level.

Objectives and structure of the document
This document presents a literature review in the area of governance and ICTs, with a specific focus on local and urban governance, also complemented by an analysis of practical-oriented studies.

This literature review serves to contribute to the development of a conceptual and measurement framework to assess policy impacts of ICTs on governance systems at city level.

This document should therefore be read as a working paper to be further finalized after discussion with representatives of cities, other experts and researchers.

The document will also serve to set the basis for further implementation of the EXPGOV exploratory research, conducted by IPTS in collaboration with cities within the framework of the Knowledge Society Forum of EUROCITIES.

The document is structured as follows:
1) First, basic concepts in the domain of governance are defined drawing from the work of recognized International Organizations;
2) A literature review and discussion of the terms governance and good governance is presented;
3) A discussion of the debate on e-Government and e-Governance in literature and practice is then conducted;
4) The interrelations of ICTs and local governance are then analyzed building on literature and practical-oriented studies addressing these issues;
5) Investigating research on urban governance and exploring the specific role given to ICTs in this domain from different perspectives the main issues emerging from literature are substantiated;
6) Finally, a discussion and some conclusions are offered.
1. Basic concepts and definitions

**Government** is defined by the United Nations as *a public organization that is part of a broader governance system*. Democratic governments by in large have three main branches: legislative, judicial and executive. The legislature (also referred to “parliament,” “national assembly” or “congress”) has the authority to enact laws. The judiciary is the system of courts of law. The executive implements government policies. It normally consists of the political leadership – the president or prime minister and his or her cabinet ministers – and a set of public “departments” or “ministries” or “agencies” whose staff is on the public payroll and who report to a cabinet minister. In its broadest sense, government refers to a body that has the authority to make and to enforce laws within civil, corporate, religious, academic and other organizations. At the national level, government commonly refers to the administration of the state, in general considered the executive branch. At the sub-national level, local government is responsible for running the district, province or city. Today, government is seen predominantly as a public organization established by a society for the purpose of pursuing that society's development objectives. This includes articulating society’s development-related demands, proposals and needs, aggregating them, and implementing responsive solutions. Public consent constitutes the source of a government's legitimacy and transparency is a condition sine qua non for government's accountability vis-à-vis its oversight body.

In the UN lexicon, **public administration** refers to both the aggregate machinery of government as well as the actions of government. The aggregate machinery includes the policies, rules, procedures, systems, organizational structures and personnel of government. The action of government includes the management and implementation of the whole set of government activities dealing with the implementation of laws, regulations and decisions of the government and the provision of public services.

The **public sector**, generally speaking, is a broader term that encompasses both government and public administration. It is made up mainly of government departments and agencies staffed by public servants. Depending on different political systems and traditions, public administration often can either refer to the executive branch (as is the case mainly in continental European administrative systems) or to the government in general.

**Governance** is the exercise of political, economic and administrative authority necessary to manage a nation’s affairs. Governance is *the process of decision-making and the process by which decisions are implemented* (or not implemented). Within government, governance is the process by which public institutions conduct public affairs and manage public resources.

**Good governance** is responsive to the will of the people, and the legitimacy of the government comes from its citizens. Governance is healthy when open, democratic institutions allow full participation in political affairs and when human rights protection guarantees the right to speak, assemble and dissent. Additionally, for UNDP, other indicators for good governance include the presence of governmental institutions that are pro-poor and that promote the human development of all citizens, making governance more than just good, but also democratic. **Democratic governance** promotes not only human development, but also efficient institutions and a predictable economic and political environment that allows for growth and effective functioning of public services.

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2. Literature Review on governance and ICTs

2.1. Governance and good governance

The term "governance" is a very versatile one. It is used in connection with several contemporary social sciences, especially economics and political science. It originates from the need of economics (as regards corporate governance) and political science (as regards State governance) for an all-embracing concept capable of conveying diverse meanings not covered by the traditional term "government". Governance and government, however, both share the same origin from the Greek word \(\text{ἐξόρνω}v\) meaning “to steer.” Yet governance connotes far more than just rudimentary functioning of government. Governance is what the government does in the exercise of its management, power and policy. Governance is a universal force in all societies; individuals exercise governance in their daily lives and relationships, as corporations and states govern their decisions, interactions and activities.

According to the main International Organisations, the concept of governance converges on the meaning by which power is exercised (see below).

<table>
<thead>
<tr>
<th>Definitions of Governance by main International Organisations</th>
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<tr>
<td>The <strong>World Bank</strong> has identified three distinct aspects of governance: 1). the form of political regime; 2). the process by which authority is exercised in the management of a country's economic and social resources for development; 3). the capacity of governments to design, formulate and implement policies and discharge functions (World Bank, 1997).</td>
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<tr>
<td>For <strong>UNDP</strong>, governance is viewed as the exercise of economic, political and administrative authority to manage a country's affairs at all levels. It is about the process by which government, the private sector, citizens and groups articulate their interests, mediate their differences, and exercise their legal rights and obligations (UNDP, 1997).</td>
</tr>
<tr>
<td>For <strong>UNESCO</strong>, governance refers to the exercise of political, economic and administrative authority in the management of a country's affairs, including citizens' articulation of their interests and exercise of their legal rights and obligations (UNESCO, 2003).</td>
</tr>
<tr>
<td>The concept of governance defined by <strong>OECD</strong> denotes the use of political authority and exercise of control in a society in relation to the management of its resources for social and economic development (OECD, 1995). This broad definition encompasses the role of public authorities in establishing the environment in which economic operators function and in determining the distribution of benefits as well as the nature of the relationship between the ruler and the ruled.</td>
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<td>According to the <strong>Institute of Governance</strong>, governance comprises the institutions, processes and conventions in a society which determine how power is exercised, how important decisions affecting society are made and how various interests are accorded a place in such decisions (Institute of Governance, 2002).</td>
</tr>
<tr>
<td>The <strong>Commission on Global Governance</strong> defines it as the sum of the many ways individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflicting or diverse interests may be accommodated and co-operative action may be taken. It includes formal institutions and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions either have agreed or perceive to be in their interest (Commission on Global Governance, 1995).</td>
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<tr>
<td>The <strong>European Commission</strong> established its own concept of governance in the <strong>White Paper on European Governance</strong>, which is about the way in which the EU uses the powers given to it by its citizens, and in which the term &quot;European governance&quot; refers to the rules, processes and behaviour that affect the way in which powers are exercised at European level, particularly as regards openness, participation, accountability, effectiveness and coherence. These five &quot;principles of good governance&quot; reinforce those of subsidiarity and proportionality already part of the EU governance framework.</td>
</tr>
</tbody>
</table>
Referring to the exercise of power overall, as mentioned above, the term "governance", in both corporate and State contexts, embraces action by executive bodies, assemblies (e.g. national parliaments) and judicial bodies (e.g. national courts and tribunals). The term "governance" corresponds to the so-called post-modern form of economic and political organisations. According to the political scientist Roderick Rhodes [R. Rhodes, “The new governance: governing without government” (1996), in Political Studies, Vol. 44, page 652], the concept of governance is used in contemporary social sciences with at least six different meanings: the minimal State, corporate governance, new public management, good governance, social-cybernetic systems and self-organised networks.

The concept of "governance" is not new. It is as old as human civilization. As we have seen, simply put "governance" means: the process of decision-making and the process by which decisions are implemented (or not implemented). Since governance is the process of decision-making and the process by which decisions are implemented, an analysis of governance focuses on the formal and informal actors involved in decision-making and implementing the decisions made and the formal and informal structures that have been set in place to arrive at and implement the decision. Government is one of the actors in governance. Other actors involved in governance vary depending on the level of government that is under discussion. In rural areas, for example, other actors may include influential land lords, associations of peasant farmers, cooperatives, NGOs, research institutes, religious leaders, finance institutions, political parties, the military etc. The situation in urban areas is even much more complex. Figure 1 provides the interconnections between actors involved in urban governance. At the national level, in addition to the above actors, media, lobbyists, international donors, multi-national corporations; etc. may play a role in decision-making or in influencing the decision-making process.

Figure 1: Urban actors Source: UN Habitat, 2003
The concept of governance has been studied from different perspectives and in different disciplines with evolving definitions and variations of interpretations. In the field of political science and sociology, as well as the fields of geography and urban planning which interest us particularly in this context, the concept of governance can be also described as a 'process of transforming and reformulating approaches to public affairs which involves developing systems for ordering the various players at local level in societies (Jacquier, 2008).

This approach is in line with another definition developed by the UN, which sees governance as 'a multifaceted compound situation of institutions, systems, structures, processes, procedures, practices, relationships, and leadership behaviour in the exercise of social, political, economic, and managerial/administrative authority in the running of public or private affairs'. In this connection, 'Good Governance is the exercise of this authority with the participation, interest, and livelihood of the governed as the driving force' (UNDESA, 2003).

With regard more specifically to the concept of good governance, this has come into regular use in political science, public administration and, more particularly, development management since the early 1990s. It appears alongside such terms as democracy, civil society, participation, human rights and sustainable development. Since the beginning, it has been closely associated with the public sector reform (UN, 2005). While governance is a neutral concept, good governance addresses the allocation and management of resources to respond to collective problems. A universally agreed position on what constitutes good governance is hard to come by. However, conceptually, it is characterised by the principles of participation, transparency, accountability, rule of law, effectiveness, equity and strategic vision (UNDP, 1997). By definition, good governance is the positive aspect of governance, which is opposed to the concept of bad governance, defined by Weiss as 'the personalisation of power, lack of human rights, endemic corruption and unelected and unaccountable governments' (Weiss Thomas, "Governance, Good Governance and Global Governance: Conceptual and Actual Challenges", Third World Quarterly, Vol. 21, n.5, 2000).

When we speak of the quality of a country's governance, then, we mean the degree to which its institutions and processes are transparent and accountable to the people and allow them to participate in decisions that affect their lives. It is also the degree to which the private sector and organisations of the civil society are free and able to participate. According to the United Nations, in fact, good governance promotes equity and equality of treatment to all based on the concept of non-discrimination. The basic consideration in good governance is being able to develop the resources and methods of governance. In the context of social development parameters, it promotes gender balance, enables synthesis of diverse perspectives and mobilises resources for social purposes. Good governance strengthens indigenous mechanisms and ensures efficient and effective use of resources. All civilised societies are supposed to be based on the rule of law which is an essential component of good governance and that should engenders and commands respect and trust Cheema Shabbir and Maguire Linda, "Democracy, Governance and Development: A Conceptual Framework"; Background Paper of the 4th Global Forum on Re-inventing Government - Citizens, Businesses and Governments: Dialogue and partnerships for Development and Democracy, Marrakech, Morocco, 10-13 December 2002, UN, New York 2002).

According to OECD, good governance has eight major characteristics or dimensions. It is participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law. It assures that corruption is minimized, the views of minorities are taken into account and that the voices of the most vulnerable in society are heard in decision-making (OECD, 2001). It is also responsive to the present and future needs of society. However, it should be clear that good governance is an ideal which is difficult to achieve in its totality. Very few countries and societies have come close to
achieving good governance in its totality. Nevertheless, to ensure sustainable human development, actions must be taken to work towards this ideal with the aim of making it a reality.

![Figure 2: Characteristics of good governance](image)

**Main characteristics of good governance**

| **Participation:** | Participation by both men and women is a key cornerstone of good governance. Participation could be either direct or through legitimate intermediate institutions or representatives. It is important to point out that representative democracy does not necessarily mean that the concerns of the most vulnerable in society would be taken into consideration in decision making. Participation needs to be informed and organized. This means freedom of association and expression on the one hand and an organized civil society on the other hand. |
| **Rule of law:** | Good governance requires fair legal frameworks that are enforced impartially. It also requires full protection of human rights, particularly those of minorities. Impartial enforcement of laws requires an independent judiciary and an impartial and incorruptible police force. |
| **Transparency:** | Transparency means that decisions taken and their enforcement are done in a manner that follows rules and regulations. It also means that information is freely available and directly accessible to those who will be affected by such decisions and their enforcement. It also means that enough information is provided and that it is provided in easily understandable forms and media. |
| **Responsiveness:** | Good governance requires that institutions and processes try to serve all stakeholders within a reasonable timeframe. |
| **Consensus oriented:** | There are several actors and as many viewpoints in a given society. Good governance requires mediation of the different interests in society to reach a broad consensus in society on what is in the best interest of the whole community and how this can be achieved. It also requires a broad and long-term perspective on what is needed for sustainable human development and how to achieve the goals of such development. This can only result from an understanding of the historical, cultural and social contexts of a given society or community. |
| **Equity and inclusiveness:** | A society’s well being depends on ensuring that all its members feel that they have a stake in it and do not feel excluded from the mainstream of society. This requires all groups, but particularly the most vulnerable, have opportunities to improve or maintain their well being. |
| **Effectiveness and efficiency:** | Good governance means that processes and institutions produce results that meet the needs of society while making the best use of resources at their disposal. The concept of efficiency in the context of good governance also covers the sustainable use of natural resources and the protection of the environment. |

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Accountability: Accountability is a key requirement of good governance. Not only governmental institutions but also the private sector and civil society organizations must be accountable to the public and to their institutional stakeholders. Who is accountable to whom varies depending on whether decisions or actions taken are internal or external to an organization or institution. In general an organization or an institution is accountable to those who will be affected by its decisions or actions. Accountability cannot be enforced without transparency and the rule of law.

Principle of good governance outlined in the White Paper on European Governance

- **Openness.** The Institutions should work in a more open manner. Together with the Member States, they should actively communicate about what the EU does and the decisions it takes. They should use language that is accessible and understandable for the general public. This is of particular importance in order to improve the confidence in complex institutions.

- **Participation.** The quality, relevance and effectiveness of EU policies depend on ensuring wide participation throughout the policy chain – from conception to implementation. Improved participation is likely to create more confidence in the end result and in the Institutions which deliver policies. Participation crucially depends on central governments following an inclusive approach when developing and implementing EU policies.

- **Accountability.** Roles in the legislative and executive processes need to be clearer. Each of the EU Institutions must explain and take responsibility for what it does in Europe. But there is also a need for greater clarity and responsibility from Member States and all those involved in developing and implementing EU policy at whatever level.

- **Effectiveness.** Policies must be effective and timely, delivering what is needed on the basis of clear objectives, an evaluation of future impact and, where available, of past experience. Effectiveness also depends on implementing EU policies in a proportionate manner and on taking decisions at the most appropriate level.

- **Coherence.** Policies and action must be coherent and easily understood. The need for coherence in the Union is increasing: the range of tasks has grown; enlargement will increase diversity; challenges such as climate and demographic change cross the boundaries of the sectoral policies on which the Union has been built; regional and local authorities are increasingly involved in EU policies. Coherence requires political leadership and a strong responsibility on the part of the Institutions to ensure a consistent approach within a complex system.

Each principle is important by itself. But they cannot be achieved through separate actions. Policies can no longer be effective unless they are prepared, implemented and enforced in a more inclusive way. The application of these five principles reinforces those of *proportionality and subsidiarity*. From the conception of policy to its implementation, the choice of the level at which action is taken (from EU to local).

Of interest to our research however, is also the study of governance by organizational scholars which has a long tradition, in different schools of thought and disciplines (cf. Mizruchi 1983; Westphal and Zajac 1995). Traditionally, governance in business firms has focused on the role of boards of directors in representing and protecting the interests of shareholders (Fama and Jensen 1983). Governance has also been studied in the non-profit context, although the focus here has generally been on the role of boards of trustees, as representing and protecting the interests of community members or other politically important constituencies (Provan 1980). In public management, governance refers not to the activities of boards, but mainly, to the funding and oversight roles of government agencies, especially regarding the activities of private organizations that have been contracted to provide public services (Hill and Lynn 2005).

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A critical role for governance in all these sectors, and consistent with principal-agent theory (PAT)\(^4\), is to monitor and control the behaviour of management, who are hired to preside over the day-to-day activities of running the organization (Eisenhardt 1989; Fama and Jensen 1983). Although there is much recent evidence that boards do not necessarily take their responsibilities seriously enough (i.e., Enron Corporation or more recent experiences from the financial crisis), board members do have a legal obligation to perform their duties and are liable if the organization they represent engages in illegal or irresponsible behaviour.

In the adaptation of PAT to the political environment, the theory has been largely applied to the analyses of the US Congress and federal regulatory bodies as well to EU delegation, and the European Commission’s system of governance analysis\(^5\). Using the standard dyadic economic model, principal institutions within the political environment such as the legislature and executive of a government wield the agenda of the state, while the agent institutions have been delegated authority to address a specific issue. However, as Mark A. Pollack outlines in his review of the theory, there is the possibility of ‘bureaucratic drift’ or ‘slippage’ whereby agent institutions may begin to establish their own agendas. Pollack notes that slippage “occurs when the structure of delegation itself provides perverse incentives for the agent to behave in ways inimical to the preferences of the principals”\(^6\). While this is in-line with the economic model, normative labeling and dominate-subordinate positioning occurs, whereby a bureaucracy is meant to be under the auspices of central government authority. Mathew D. McCubbins, Roger G. Noll, and Barry R. Weingast give a technical account for this slippage which can be generalised as motivations suggesting why this drift can occur. There can be private or political values at stake among decision-makers in the agent institution; there can be personal career objectives among the same group; and/or there can be a general desire of aversion towards recommended policies of the principals\(^7\).

Looking at another area, that of organizational networks, it can be observed that except for few scholars most literature does not explicitly address governance when discussing about networks’ management and organisational relations (cf. Goldsmith and Eggers 2004; Imperial 2005; Jones, Hesterly, and Borgatti 1997; Moynihan 2005; Park 1996). The most obvious reason could be that networks are comprised of autonomous organizations and, thus, are

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\(^4\) Originating from the field of economics, at its most elementary levels, Principal-Agent Theory (PAT) is used to describe a dyadic relation between a buyer and a seller. The buyer creates a contract with the seller and has the funds to procure the seller’s service of the service. Therefore the buyer wields the tools of funding and knowing the service they want done. The seller, on the other hand, possesses more knowledge about the service they are providing than the buyer does, and can thus steer the relationship to their favour and drive up the price. Thus, asymmetry of knowledge is the seller’s tool in the relationship. Depending on wording of the contract, either the buyer or seller can use this to their advantage. PAT rests on the assumption that buyer and seller do not want a mutually beneficial outcome of the relationship, but would rather pay less or charge more than what the other is offering (Amelia Rouse, Richard W. Waterman, and Robert Wright. “The Venues of Influence: A New Theory of Political Control of the Bureaucracy,” Journal of Public Administration Research and Theory Vol 8, no 1 (1998): 13-38. 15).


essentially cooperative endeavors. Since networks are not legal entities (unless we consider joint ventures and equity based alliances to be true networks), the legal imperative for governance is simply not present as it is for organizations. For goal-based organizational networks with a distinct identity, however, some form of governance is necessary to ensure that participants engage in collective and mutually supportive action, that conflict is addressed, and that network resources are acquired and utilized efficiently and effectively. Although all networks comprise a range of interactions among participants, a focus on governance involves the use of institutions and structures of authority and collaboration to allocate resources and to coordinate and control joint action across the network as a whole. These interactions are distinct from operational links, which are often dyad based including referrals, sharing of information, and joint programs. Even when mechanisms for governance have been discussed in the literature, they are generally discussed in terms of specific activities performed for a particular network, rather than in a comparative way. As a result, there has been no theory on the various forms of governance that exist, the rationale for adopting one form versus another, and the impact of each form on network outcomes. This will be instead our focus in further developing the concept of ICT-enabled governance as networked governance (see the EXPGOV Concept Paper).

2.2. e-Government and e-Governance

Unquestionably ICTs play an essential role in public administration as it can facilitate better overall government performance and reduce operational costs. They can increase the efficiency of government services, help ensure transparent use of public funds and can encourage the participation of the general public in policy formulation.

In this regard, the systemic introduction of ICTs into governmental operations gave rise to the concept of e-Government (short for electronic government), which encompasses numerous concepts, including: e-Gov, digital government, e-administration, online government and, in certain contexts, transformational government, each of which reflects different priorities in government strategies. The term ‘e-Government’ is diversely defined by different scholars, public officers and other stakeholders. Narrowly, e-Government indicates a system of effective provision of public services via ICTs. It also implies electronic transaction between the government and other actors such as citizens or businesses in society through new technologies including the internet (Evans and Yen, 2005; Gil-Garcia and Pardo, 2005). The concept of e-Government includes all applications of ICTs that improve efficiency, effectiveness, transparency and accountability of daily administration of government (Moon, 2002; Sharma, 2007). Expanded from the simple definition of electronic administration of central and local governments, the broader concept of e-Government stands for a more citizen-friendly government that provides enhanced public services and improves productivity of the governments via extended networks and advanced technologies or, as indicated by Nour et al., (2007) e-Government can be defined "as a complex socio-technical system in which heterogeneous stakeholders are interactively entangled to fulfill their best interests".

In particular, for the United Nations, e-Government is defined as ‘a government that applies ICTs to transform its internal and external relationships’ (UNDESA, World Public Sector Report, 2003). According to the OECD, the definitions of e-Government fall into three groups: 1) e-Government is defined as Internet (online) service delivery and other Internet-based activity, such as e-consultation; 2) e-Government is equated to the use of ICTs in government. While the focus is generally on the delivery of services and processing, the broadest definition encompasses all aspects of government activity; 3) e-Government is defined as a capacity to transform public administration through the use of ICTs or indeed is
used to describe a new form of government built around ICTs. This aspect is usually linked to Internet use. Therefore, the definition of e-Government of the OECD is simply ‘The use of ICTs, and in particular the Internet, as a tool to achieve better government’. (OECD, 2003). And finally, for the European Commission (The role of e-Government for Europe's future, 2003) e-Government is defined as ‘the use of ICTs in public administrations combined with organisational change and new skills in order to improve public services and democratic processes and strengthen support for public policies’.8

Therefore, borrowing from Ciborra, e-Government, has three main definitional mechanisms (Ciborra, 2002, 2004): 1) It is the transactional relationship between an administration and the citizen and the related re-engineering of the activities internal to that administration (Bellamy and Taylor, 1998); 2) It is the way in which the boundaries between the state and the market are redrawn, by the creation of a minimal, electronic state, which is more transparent, agile and accountable (Heeks, 1999, Stiglitz and Orszag 2000); and 3) It is the means by which aid policies introduce mechanisms for improving accountability and transparency as key characteristics of good governance (UNDP, 2001).

In sum, e-Government programmes are interdependently connected with those that focus on more general public administration reform, even though there remains a shortage of tools and techniques to achieve the desirable alignment between these interrelated strategies. For instance, the goal of e-Government is mainly efficiency and effectiveness of government functions, not dissimilar to those goals of public administration reform. We can see that the potential of ICTs to store, process, retrieve and disseminate vast amounts of information promises more transparency in government operations, which in turn forces public agencies to be more accountable and reduces corruption, for example. These same goals are found in public sector reform programmes such as the ‘New Public Management’ and ‘Good Governance agenda’ – programmes that were already under implementation when e-government gained prominence during the 1990s. At the time, e-Government was expected to accelerate the ongoing public sector reforms aimed at making the public sector leaner, more cost-effective and accountable. It was also expected that in the process of reform, e-Government would fundamentally transform the relationship between citizens and the state.

In this connection, and despite what stated by the World Bank in 2002, “there is no e-Government textbook and no e-Government theory...”, e-Government has been examined and analyzed by diverse researches and from different perspectives9, many even argue that it should represent a discipline in itself, notwithstanding its clear multidisciplinary character. So far, as described by Cordella (2007) ‘the dominant literature has seen e-Government as a next step in the rationalisation of government activities along the line of the new public management’ (from Bellamy and Taylor, 1998, to Fountain, 2002, and Heeks, 2002) [Cordella, A. (2007), “e-Government: towards the e-bureacratic form?”, Journal of Information Technology 22, 265-274, Palgrave Macmillan]. The concept and practice of e-Government has also been analyzed deeply from an Information Systems Theory point of view (for example Ciborra, 1993 and 2005, and Batini et al., 2006 and 2008). More often, e-Government is conceived as a non scientific domain, to be analysed just from a practitioner’s point of view, and with specific consideration given to the different “pillars” of the NPM agenda: efficiency, accountability, decentralisation and marketisation (or client-focused service delivery, where the optimisation of procedures is key in redefining governance practices and processes).

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Critical positions against these orientations have also emerged in literature (for instance Dunleavy et al. 2005, Finger and Rossel, 2005, Misuraca and Rossel, 2006, and Misuraca 2007), pointing out the inherent 'multi-dimensional components and levels of governance that are needed to be taken into consideration when analysing e-Government, especially considering it alongside the transformation of the state and dynamic tensions between rapid technological developments and regulations, the institutional frameworks and capacities in a globalized and multi-stakeholder world' (Misuraca, 2009).

In our approach (Misuraca, 2009), for example, e-Government represents a middle-of-the-road concept, and identifies the composite trend of governments at all level, mainly through their operational arm, the administration and –subsidiarily- through the access of citizens to public affairs, aimed at promoting: 1) better and more efficient administration; 2) more effective inter-administration and administration-enterprise relationships; and 3) user-empowering servicing and more transparent access of citizens to political decision-making [Misuraca, G., (2007), “e-Governance in Africa, from Theory to Action: a handbook on ICTs for local governance”, IDRC/Africa World Press, July 2007 and Misuraca, G., Rossel, P., and Finger, M., “Governance with and of ICTs: the need for new institutional design in a changing world”, egov magazine, Volume II – Issue 5, May 2006].

Developing further from the definition of e-Government, the e-Government performance has been studied and measured in various ways. Mere successful application of technological innovation cannot constitute successful e-Governments. Studies on more advanced countries imply that successful e-Governments are those that achieve multiple values like efficiency in administration, innovation in organization, effectiveness of public services, and transparency and participation (Nour et al., 2007; Caroline et al., 2008). Similarly, Moon and Norris (2005) consider administrative change, efficiency and revenue generation as critical e-Government outcomes. Also, Nour et al,(2007) proposed efficiency, effectiveness, access, accountability, equity, empowerment and participation, transparency, availability of services, responsiveness and integrity as critical goals of e-Government, and investigated a relationship between these goals and contextual factors such as the degree of e-Government readiness and the level of democratization. These studies show that e-Government is considered successful when it realizes these visions and goals.

Several researches have been also conducted on factors that lead to a successful e-Government. Some of the factors drawn from the studies on more advanced countries can be identified as: changes in structure (US CIO, 2002; UN, 2005), changes in work/business process (Dawes and Pardo, 2002; Sharifi and Zarei, 2004), technologies (Clark, 2003; OECD, 2004), human resources (Evans and Yen, 2005; Sharma, 2007), organizational culture/values (Ho and Ni, 2004; Moon and Norris, 2005), vision/strategies/internal leadership (OECD, 2001; Ke and Wei, 2004), laws/regulations/policies (OECD, 2004; Gil-García and Pardo, 2005), financial resources (Ho, 2002; Moon, 2002) and external pressure (Berry and Berry, 1999; Ho and Ni, 2004).

More than two decades of experience with e-Government has however shown a more complicated picture. One clear outcome of e-Government is that it has contributed immensely to citizen’s access to public services by offering services online and through public kiosks around the clock seven days a week. There is some evidence that e-Government has resulted in increased efficiency in terms of costs. There is also evidence that e-Government has reduced transaction cost for citizens in dealing with public authorities. These efficiency gains, however, are not universal. Studies have shown that deployment and maintenance of e-Government infrastructure, often alongside the traditional brick and mortar systems, increased the cost of operations rather than reducing it.
Concerning reform objectives such as greater accountability or reduction in corruption, which are political in nature, e-Government had a limited positive impact. Case studies from developing countries, for instance, have shown that despite the use of ICTs, incidence of corruption continues to be high in routine government operations such as land registration, licensing and procurement. Also, there is no clear evidence in support of e-Government fostering a new kind of relationship between the citizens and the government agencies. Empirical research has shown that e-Government only helps reinforce the existing power relationships. However, one important development which may have some implications for the citizen-state relationship is an increase in the use of private sector intermediaries in the delivery of public services. As part of e-Government, private sector performs a wide array of functions such as strategic advice, training, infrastructure, hardware and software provision. ICTs have also enabled outsourcing of a number of functions traditionally performed by the public bureaucracy to private sector or (to a lesser extent) to civil society organisations. The implications of these developments for the long-term relationship between the citizens and the state, and also for the accountability of the system require however more detailed investigation. There are in fact several constraints that limit the use of ICTs for better governance. Among them the lack of political will to effectively change, the lack of financial resources, the lack of ICTs skills among government officials, the lack of buy-in from the general public. To overcome these difficulties, it is important to learn from experience and explore alternatives to promote the use of ICTs in facilitating public sector reforms and in implementing e-Government strategies and plans. Often, in fact, e-Government plans and public sector reforms are not effectively linked with evident risks of reduced effectiveness and impact of policies, as well as waste of resources and duplication of efforts.

The debate about e-Government, however, evolved in the last few years towards a broader discussion on e-Governance, where the concept and practice of e-Governance further encompasses e-Government. In fact, e-Government has at times been seen as a panacea to the often slow process of public administration reform, and is believed to improve, or even create, good governance. Yet, in reality, this is not really true. e-Government initiatives when focused exclusively on administrative efficiency do not augment the participation of non-state stakeholders. To promote a wider, more proactive role for citizens means integrating deeper mechanisms of ICT development, mechanisms that encompass democratic governance and participatory knowledge management, as in the concept we propose of e-Governance.

e-Governance was also initially considered a part of public administration reform, but has now emerged as a greater societal challenge as well as a mechanism for more than just improvement of administrative services or user satisfaction, but as something that promotes deeper forms of democracy. While at its most basic, e-Governance is a means of expressing efficient e-Government, at its more complex it impacts well outside public administration boundaries, allowing the full-participation of civil society as active stakeholders. It is not only something that enhances service delivery, but also facilitates and enhances interactions between actors, thus enabling changes in policy-making and regulatory processes.

Moreover, and probably not by accident, while the debate about e-Government has been polarized mainly in industrialized countries, and only after included (in terms of e-Government for Development) developing and emerging economies, e-Governance emerged instead mainly from field-experiences in developing countries. A pioneer experience and attempt to conceptualize e-Governance with a developmental perspective has been done in 2002 with the e-Africa Initiative for good governance: building e-Governance capacities in African countries (CAFRAD & UNDESA, 2002, Misuraca, 2002), in parallel with the e-Government for Development Initiative of the Italian Government and UNDESA which followed the UN ICT Task Force and the G8 Action Plan (2001, 2002). A sort of e-
Governance enthusiasm then diffused in emerging and developing world, and especially in South East Asia and India. For example, Basu Subhajit (2004), examines the legal and infrastructure issues related to e-Governance from the perspective of developing countries, with a particularly focus on how far the developing countries have been successful in providing a legal framework for e-Government. But again, the confusion between e-Government and e-Governance, in this as in many other cases is evident. Moreover, the "leapfrogging" effects that many scholars and practitioners predicted for developing countries, thanks to ICTs, did not happen. Many (and often very costly) experiments and pilot projects have been implemented, but often –unfortunately- with very little results. In this regard, it should be made clear immediately that the concept of e-Governance is not commonly recognized and shared worldwide. Quite the contrary. For many, e-Governance is just one more buzzword for e-Government. For others, who aim at specific identifications, e-Governance is merely an indication of the impact of e-Government outside the administration boundaries, in particular when private economy actors and civil society organizations are active stakeholders.

Looking at prevalent literature and definitions, as pointed out by Finger and Pecoud (2003, 2004 and further elaborated by Finger, Rossel and Misuraca, 2005, 2006 and 2007) we can identify three main conceptualisations of e-Governance: 1) e-Governance as customer satisfaction; 2) e-Governance as processes and interactions and 3) e-Governance as tools. The first and probably most widespread conceptualisation refers 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. Generally, this is the view of promoters of new public management who see in the ICTs a significant contribution to, and the next step in, improving service delivery and especially customer satisfaction. For this conceptualisation, the main unit of analysis is the government or rather the administration, whose interface with the citizens the ICTs are said to be going to improve. As a matter of fact, citizens are seen here as more or less passive recipients of digitalised information and services, (i.e., as customers). In other words, at the heart of this conceptualisation it is not the process to which the ICTs are being applied, but merely the delivery of information and sometimes services. Needless to say that this view does not take into account the possible other policy levels that the state may need to cope with and, also, it does not mention the emergence of non-state actors who become increasingly involved in policy-making, service delivery and to a lesser extend regulation - the three main functions of the state. (see on this for example Finger and Pecoud 2003).

In the second conceptualization, e-Governance is seen as a decisional process. The International Centre of e-Governance says for example, "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 ICTs, in governance systems". Similarly, the e-governance Institute of Rutgers University states: "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 ICTs 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 means 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 of the process.

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 that ICTs offer. According to the Commonwealth Centre for e-governance (CGeG), it is the movement of governments online to deliver their services and programmes, to provide government information, and to interact with the citizen, all electronically. This is resulting in the formation of new relationships between the citizen and the state. In particular, CGeG says: "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 utilise 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". (Gilbert Riley, 2003). Following this and other research, in particular from the Riley Reports, the Commonwealth Centre for e-governance notes that "e-governance differs from e-government in the sense that e-government constitutes the ways public sector institutions use technology to apply public administration principles and conduct the business of government: it is government using new tools to enhance the delivery of existing services. E-governance includes the vision, strategies, planning, leadership and resources needed to carry this out: it is the way that political and social power are organised and used". (Sheridan and Riley, 2006). This is parallel to the discussion by Okot Uma (2001 and 2005), which focuses on the direct contribution that the "e" plays in advancing principles of governance and particularly good governance. Indeed, he says, "e-governance seeks to realise processes and structures for harnessing the potentialities of ICTs at various levels of government and at the public sector and beyond, for the purpose of enhancing good governance". Better governance, thanks to the ICTs, would improve, according to Okot-Uma, democracy and ultimately peoples' lives. Not surprisingly, e-Governance is not structured along concepts of state transformation, but rather along technological possibilities. Says Perri (2003), one of the representatives of this conceptualisation of e-Governance: "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; 2) collecting data or observations through search agents; 3) organising and analysing data on events, conditions, problems and processes; 4) supporting communication and transaction e-mail, electronic conferencing, video-conferencing systems; 5) modelling decisions and advising on possible consequences spreadsheets; 6) and environments that provide integration and storage for the other categories". In other words, this conceptualisation is characterised by a strange combination of quite unreflected use of ICTs on the one hand and visionary (or even normative) statements on democracy and "good governance" on the other. It clearly puts the ICTs before the state, and actually operates with, in the opinion of Finger and others (2003, 2005), a quite simplistic and 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 ICTs on operations, nor on state transformation. (Misuraca, 2007).

In summary, looking at the main conceptualisations of e-Governance in literature, it can be seen that there are still 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 ICTs for enhancing service delivery only (e-Governance as customer satisfaction), passing through the one which sees e-governance as a dynamic
process, i.e., mainly as an enhancement of interactions between actors (citizens/consumers, administration, private sector, civil society). Up to now, most of the literature and the attempts to promote the concept and practice of e-Governance have produced rather controversial results. Rather than being based on a solid theoretical and strategic framework, often e-Governance is still seen as an extension of e-Government (to more political participation and more relationships with non State actors).

Other scholars (Misuraca, Finger and Rossel, 2006, and Misuraca, 2007) instead argue that there is a need to consider a more radical paradigmatic shift. As a complementary activity but inherently different from e-Government, e-Governance is the field of activity where policy-design, co-ordination, arbitration, networking and regulation (just to mention essential steering functions), with ICTs, but also of ICTs, takes place. And this involves all sorts of non-state actors, the state representatives being however one of the main stakeholders. (Misuraca, 2007). Differently from other scholars, we consider e-Governance as a much broader framework to capture the co-evolution of ICTs' various stakeholders with the political institutions, at local, national and global level. In this perspective, e-Governance can also be considered as knowledge creation and management practice, and therefore a learning type of dynamics, involving internal forces of organizations, as well as outside or across the board of socio-economic actors in a meso-societal type of change process, with a diversified array of necessary knowledge to be triggered and enhanced. (Misuraca, 2007).

In parallel to the building of an original and dynamic concept of e-Governance, it is also important to briefly outline the debate about the more general impact of ICTs on public institutions. An increasing part of socio-economic analysis about the impact that an innovative public administration could have on society, is concentrated on three main issues:

1. Infrastructures of information polity. It is generally accepted (see Dutton 1996) that the development of ICTs infrastructures is linked to national and regional economic development. Therefore, it is necessary to study the policies for infrastructure provision and management that might enable the best policy actions to contribute to urban/regional and civic/national developments. An important role is played by an increasing number of intermediaries as, for instance, public services brokers, who act as gateways to public service and provide citizen identity validation, resources authentication etc. together with storing and sharing of data in a secure environment for ICT-enabled services.

2. Informatisation and public administration. According to Frissen (1997), examples of political-administrative developments enacted by uses of ICTs can be seen in transformations of internal organisations, operations, transactions, policies, monitoring, surveillance, regulation and deregulation, provision of information to politicians, citizens and societal groups and organisations and creation of independent intermediary agencies for development and implementation of public policies. Moreover they provide a potential productivity gain by outsourcing core administrative functions such as data processing, human resources, billing and financial management.

3. Public relationships mediated by new media. Concerning the spectrum of public processes that can be mediated by ICTs, Bellamy and Taylor (1997) distinguish in general the following five sets of relationships lying at the heart of the information polity: 1. internal relationships in the machinery of government; 2. the relationships of government organisations to the consumers of their services; 3. the relationship of government to citizens of state; 4. the relationships between governments and the providers of ICT infrastructure, equipment and services; 5. the relationship between existing information systems, patterns of communication and technical infrastructures to the polity’s ‘appreciative system’. All the above relationships pose questions related to corresponding legal presumptions and constitutional and official status of online deliberations.
Finally, one of the most relevant, and less investigated, field of the application of ICTs in governance systems is represented by the emerging implications of ICTs on stakeholders relationships, and particularly on citizenship. This aim could be pursued through the analysis of the social and economic impacts of ICTs on relationships among citizens, institutions and organizations, within and between different governance layers in order to further understanding the implications and impacts of ICT-enabled services and ICT-enabled governance processes more in general on growth and development perspectives.

2.3. Local Governance and ICTs: a multi-level deployment context

In modern nations, local governments usually have fewer powers than national governments do. They usually have some power to raise taxes, though these may be limited by central legislation. In some countries local government is partly or wholly funded by subventions from central government taxation. The question of Municipal Autonomy - which powers the local government has, or should have, and why - is a key question of public administration and governance.

The institutions of local government vary greatly between countries, and even where similar arrangements exist, the terminology often varies. Common names for local government entities include state, province, region, department, county, district, city, township, town, borough, parish and village. However all these names are often used informally in countries where they do not describe a legal local government entity. In general terms, local governments are administrative offices of an area smaller than a state. The term is used to contrast with offices at nation-state level, which are referred to as central government, national governments or (where appropriate) federal governments. Similarly, local governance refers to the exercise of authority at local community level. But not all governance practices at a local level would constitute local governance. According to UNDESA, for example, it is possible to have central governance or even foreign governance at local level. 'What determines whether governance is local or not is the extent to which the local population is involved in the steering (i.e. in determining the direction) according to their local needs, problems and priorities' (UNDESA, 2000).

In this sense, governance ceases to be a matter of government only. It is a situation of multiple inter-linkages and relationships in which different and various actors in the public and private sectors as well as civil society play different roles sometimes mutually conflicting and sometimes mutually reinforcing and complementary, focussing on satisfying the interests of the local community. In this framework, local governance is not good by definition, but it can be assumed that good local governance involves a good management of administration at local level, including inter-administrative and inter-sectoral linkages.

In this respect, the reform and modernization of governance arrangements and mechanisms have emerged especially in the last two decades as powerful imperatives in several European countries, and in particular in Europe in the UK system, being associated, among other concepts, to the ideas of the "Third Way" (Giddens, 1998, 2000). This political project has witnessed a reconfiguration of governance arrangements in a number of ways: 1) It has touched on every aspect of local and urban governance through decentralization of services and a concern with strengthening community leadership (Lloyd & Peel, 2006); 2) It has drawn attention to facilitating greater inclusion in the decision-making process, encouraging more active civil engagement, and promoting a cultural change in the public sector at large (Peel & Lloyd, 2007); 3) It has placed particular emphasis on fostering cross-cutting policy working (Richard, et al., 1999).

10 Wordiq.com http://www.wordiq.com/definition/Local_government
In part, the recent and contemporary political agenda intended to address the inherited fragmentation of governance arrangements -also arising from earlier neo-liberal policy influences (Sullivan & Skelcher, 2002)- with integrated policy intervention and when required the use of ICTs to solve the complexities deriving from the proliferation of organizations, agencies and actors involved in various aspects of local and urban governance, partnership initiatives and the provision of public services. In effect, the emerging differential mix of responsibilities, remits and territories contributes to overlaps and duplications. ICTs are often seen as the supporting tools to reduce the complexity and reduce administrative inefficiencies.

Within this framework, e-Government has been identified as one of the major means to fully reap the benefits of ICTs and promote economic growth, and accelerating development in regions that are lagging behind. Linkages between Information Society and cohesion policies as part of the EU Structural Funds have been placed since the beginning of the Information Society development in Europe and many measures and relevant actions supported by national governments and the EU have been taken at local and urban level. For example, a research conducted by the Committee of the Regions on Innovative e-Government actions at local and regional level (EU, 2003), in addition to present an overview of the EU-funded initiatives related to e-Government at local and regional level (e.g. ERISA, IANIS, ELANET, PRELUDE, TELECITIES, BEEP, e-Government-Vision-TV, I&DeA, etc), presented a deep analysis of selected case studies and, for the first time, attempted to evaluate relevant examples of best practices applying an assessment methodology derived from the quality management practice (i.e. CAF – Common Assessment Framework) in order to measure the real impacts of the initiatives based on citizen's satisfaction.

In the following years applications of the use of ICTs to support transforming governance processes and innovative forms of local service delivery have been developed in pioneering experiments and pilot projects in several large and middle-size cities all over the EU. For example, a flagship programme to structure and systematize interventions, as well as to support best practice sharing and cross-administration collaborations, is the UK Local e-Democracy National Project which ran from 2004 to 2006 and sought to explore how new technologies could change the way in which municipal councils engage and works with their citizens and communities (Jeffrey, Gliddens, Pratchett, & Ruston, 2006). This project intended to explore more in detail issues around e-Democracy (e-Participation in local democratic engagement) within the broader local e-Government Strategy and programme in the UK. The project received initial funding of 5 millions GBP to facilitate the research work and support exchange of practices. A specific research with surveys in EU and USA has been conducted to map the state of e-Democracy in the EU (Pratchett, 2006).

Many other projects and initiative have been following, either initiated by City, local or national governments, or supported by EU funding schemes (as part of IST research programmes or supportive actions, or as in the case of the EU Preparatory action on e-Participation, jointly implemented by the European Parliament and the Commission, to stimulate the use of innovative ICT-applications to increase participation and improve the quality of public service delivery.

More recently, the emergence of web2.0 technologies and applications made common to collect cases studies, good practices and research analysis on professional online communities. Some examples are the ePractice.eu community initiated by the EC in the field of e-Government, e-Inclusion and e-Health (which in 2009 already collected 1325 Cases of good practices from all over EU) as well as specific initiatives in the field of e-Participation, such as the recent e-Participation.it, which has gathered only in the first month 110 reports, making it "the most complete collection of cases that exists in Italy right now". This project echoes an existing project between Germany and the UK, e-Participation.net, created by the
British Council Germany and the German web-zine (and PEP-NET\textsuperscript{11} member) politik-digital.de, which has collected 217 case studies from those two nations.

In this regard, and building on the analysis done also by private sector\textsuperscript{12}, recent research in the field of ICTs and governance at local level can be seen as mainly focusing on the emerging trends of e-Government, namely: 1) the growing recognition that a crucial test of ICT-enabled solutions is the impact they have on the quality of the relationship that government has with its constituency; 2) the value and power of ICT-enabled networks to support the ability to intimately connect people, government agencies, and private or community sector organisations in new patterns and combinations. However, these trends must be considered as complementary to the traditional objective of e-Government, that is achieving "better government" as simply stated by OECD (OECD, 2003).

For example, a recent report issued by the UK Local Government Information Unit and pretentiously titled "Local Government 3.0: how councils can respond to the new web agenda" (UK, 2009), attempts to place the emerging ICT-enabled innovations and trends into the evolution of Internet and analysing the implications for politics and local governance, based on engagement and collaboration. In this effort, reference is also made to the classical typology of e-Democracy developed by (Coleman & Gotze, 2001) and to the work of (Shirky, 2008) who in his recent book "Here Comes Everybody: The Power of Organizing Without Organizations" highlights examples of how the web has placed real, effective power in the hands of citizens, whether it is students in Belarus organising demonstrations via flashmob\textsuperscript{13}, or groups of Facebook users forcing Barclays to change their charging policies. In each case collaborative, non-hierarchical co-ordination online creates powerful coalitions who are able to initiate real world offline action and change. An interesting example in the political sphere is also the Italian case of the "Beppe Grillo's Blog" that addressed to ordinary citizens by ordinary citizens has produced a striking participation in both online and offline protest events giving birth to a social movement that managed to get 30 elected representatives in the 2009 municipal elections. In addition to this, the blog's promoters managed to raise substantive funds and increase the visibility of the blog that in 2009 was among the top 10 blogs visited worldwide.

This is to say that beyond the specific potential of ICTs to enhance governance systems at local level (but also their associated risks) current challenges (linked or not to ICT developments) are generating a number of fundamental questions about the nature of citizenship, the role of the state, roles and responsibilities and how to engage in governance processes, all issues that ICT-enabled applications can amplify and support.

2.4. Urban governance and ICTs: the quest for new ICT-enabled models

The notion of urban governance, which is often considered as an alternative to traditional approaches to government (centralised, hierarchical, top-down, bureaucratic) puts forward or promotes an approach based on public action networks and mechanisms aimed at cooperation, organisation and even integration in the systems and mechanisms of a wide diversity of public and private stakeholders (a polycentric, network-based, horizontal, cross-disciplinary, process-based, bottom-up approach) (Jacquier, 2008). There are a number of different theories usually put forward to explain the emergence of the concept of urban governance, according to the various problems and changes in society which the concept attempts to address (from neo-liberalism theories to state transformation, etc). (F. Perroux, 1964) (P. Perroux, 1990).

\textsuperscript{11} PEP-NET is a European network of all stakeholders active in the field of eParticipation, see \url{http://pep-net.eu/}

\textsuperscript{12} The Connected Republic: Changing the Way We Govern (Badger, Johnston, Stewart-Weeks, & Willis, 2004)

\textsuperscript{13} The term \textit{flash mob} is applied to gatherings of large group of people (organized via social media, viral emails, etc.) who assemble suddenly in a public space, perform an unusual action for a brief time, then quickly disperse.
Cities and urban areas therefore seem to be the ideal place in which to reconcile the contradictions vexing globalised societies which are nonetheless rooted in separate cultures and territories (EU, 1997). It is at this scale and within these local areas that the tensions at play within a multiple system of interactions and often conflicting views between the three pillars of sustainable development (economic, social and environmental) can be managed (Jacquier, 2001).

Research in this area, however, does not usually consider the impacts of major economic trends and their consequences in terms of the spatial distribution of production factors (capital and workforce) at urban level (EU, 2006). Structural analysis of the linkages between the high-value added assets of the digital economy (and particularly ICTs) is not considered from most research on urban governance and local development (Jouyet & Levy, 2006).

More specifically, the findings from the research Project 'TeleCityVision – Information Society and Urban Development in European Comparison', funded by the European Commission (1998-2002), and which examined perceptions and attitudes of administrative actors and urban politicians in 170 European cities regarding the potential of ICTs within the urban context, show that the widespread application of ICTs is generally seen as an important factor of modernization. But at the same time, the discussion of ICT on urban development in general seems not to be a central issue in everyday (work related) activity within the administrations, and there is no much knowledge concerning the effects in specific policy domains.

In addition to this, the analysis of literature on urban studies clearly shows that there is growing awareness amongst scholars and urban actors on topics which reflect the interrelation of information society and urban development. Since the path-breaking work of Manuel Castells “Informational City” and the writings of William Mitchell on the “City of Bits” and “E-Topia” scholars from different fields of urban research have contributed to gain more insight into a socio-spatial and socio-technical process which can be characterised by being to a good deal invisible and highly accelerated. A very systematic approach covering various urban fields such as housing, culture, safety, planning etc. has been presented by Graham and Marvin in 1996, a contribution which can be judged as a new way of how to look at two interwoven field of urban research: Social space and technology. However, and with regard to the research agenda we are particularly interest to, it seems that the discourse on urban issues is not so much driven by a clear focus on ICTs.

While there is growing awareness among scholars that considerable urban changes appear in nearly every national urban system, urban effects of socio-spatial as well as socio-economic changes are broadly discussed, new theoretical models concerning the questions of how the new economy shapes space are invented in order to explain processes of peri-urbanisation and fragmentation etc., but research addressing the interrelations of the technical, the social and the spatial implications are neglected so far or are restrained to more or less deterministic assumptions. Therefore, if we want to understand how the Information Society will be shaped in the city – a prerequisite for the development of adequate policies – we have to look at the processes of informatisation driven by the actors, their visions and strategies in dealing with ICTs.

According to several studies, in fact, ICTs form the basis of a new technological revolution that will lead to a change of the technological paradigm with comprehensive impacts on economy, society and culture (Castells 1997; Sassen 1997, Floeting 1997; Floeting/Grabow 1998). Recent studies analysing the interrelationships between ICT and the city emphasise that the new ICT will facilitate communication irrespective of time and spatial distance. Therefore the freedom of choice of location for companies and also for private households is
steadily increasing. This does not necessarily mean that there will be a loss of meaning and significance of cities in general. Some authors rather assume that on a global scale certain metropolises will rise (or have already risen) to 'global cities' in comparison to others which might get a lower or even marginal position in the European or national urban system. According to several studies ICT could promote also a hierarchisation and polarisation of urban systems. On a regional or a local scale companies have increasingly more freedom in deciding where to locate. Therefore the ongoing trends of decentralisation and suburbanisation will probably be reinforced by ICTs.

This brings us to state that while the 'ICT complex' can be considered as a major force to drive the modernization and transformation process of cities, these processes are mainly seen as reduced to its economic aspects. Astonishingly enough the social, cultural and spatial implications of ICTs are neglected and are not in the centre of concern of public authorities or reduced to some expectations that ICTs would contribute to improve communication between administrative departments and facilitate access to public services. The actual shaping of technology by urban actors does not correspond to the possibilities that ICTs may provide.

In recent years, however, the rapid integration of ICTs in the public sector is transforming public administrations not only by increasing requirements and expectations in the ways of governing to reflect new methods of efficiency and productivity, but also in changing the governing "attitude", meaning that governments should be more open to democratic control and social accountability. According to many scholars these processes of changes ensure efficiency and democracy in a more effective manner than before, and the application of ICT-enabled innovations tend to create opportunities for governments to modify the traditional compromise between these two objectives. New user-driven technologies allow moving still further in helping transforming the government by changing power and responsibilities and linking together and more efficiently all interested players (public and private sector, both as service providers and industrial sector, and citizens) (Gatautis, 2008). More specifically, the application of ICT-enabled solutions at City level is based not only on the provision of ICT-mediated information but also on the possibility to include citizens into the social and political life of a City more actively, in order to facilitate the process of decision-making for public institutions, improve public policy in local communities and transform relations with citizens, business and other public administrations (Gatautis, 2004).

In order to respond to the modern challenges to which city systems are confronted nowadays therefore requires finding new models of governing, and ICTs can play a crucial role on this, given their pervasiveness in society. Local and city governments moreover have a critical role at stake in this changing process as the branch of formal democracy that is closer to citizens and communities, dealing with peoples' everyday concerns and responsible for helping shaping the places in which they live.

Research in this domain has been conducted also from a practitioners' perspective. During 2006 and 2007 within the framework of the EUROCITIES network a survey about e-Government City Models entitled “e-Government City Models: cases from European cities” (Rodríguez, Batlle, & Esteban, 2007) has been carried out. The survey, which constitutes a qualitative approach to e-Government on European Cities, shows how seven leading European cities faced such transformation along the past ten years, which were the key decision taken and the main inspiration of their policies. The research provides therefore a valuable tool for city managers to initiate and guide the e-Government transformation.

Although a lot of lessons can be learnt from surveys, this is recognized as only one of the needed contribution to successfully manage the local public administration transformation. The other missing dimension is the measurement of how a city is progressing in this
important process. In fact, there is a lack of information regarding e-Government at the city level. Up to now, the most relevant studies about e-Government measurement comparing e-Government evolution has been tailored at country level (CapGemini, 2006-2009). Although some information is also available at regional level, only little information is focused on local level e-Government. Furthermore, while indicators at country level are widely accepted and commonly used, the presence of such standards at regional level decreases. And finally, at local level, there is such a low use of standard indicators that it is not possible to perform quality comparisons between different city cases.

Regarding local level, benchmarking surveys mainly focus on the general aspects of the official websites. Although there are some exceptions such as the “eCitizenship for all benchmark report” (Deloitte & EUROCITIES, 2005) carried out by Deloitte and promoted by the EUROCITIES network, surveys rarely focus on e-Services quality or citizen adoption of e-Services. Therefore, a complete view of the e-Government process in cities is not possible yet today. This lack of information about the progress of local e-Government initiative and the real need of having this information to better manage the e-Government transformational process motivated Barcelona City Council to propose in June 2007 the creation of a new working group within the EUROCITIES network with the aim of defining a measurement framework for local e-Government based on a bottom-up approach and focused on e-Services maturity and perception of citizen's adoption and, at the same time, performing the first measurement over 15 European cities. A specific report on City e-Government Benchlearning presents the results of this research (EUROCITIES, 2009). Far from being a typical benchmarking exercise in which the results show only rankings of cities, the work proposed aimed to be a bottom-up exercise starting to listen to cities and understanding the kind of services they provide and the real needs they have when managing the e-Government transformation, developing a measurement framework designed from scratch by the cities and for the cities. The selection of services was based on those actually provided by cities. The results are presented through “City Maps” that compare each city with the European average.

This bottom-up approach led members of EUROCITIES to a learning process in which after a detailed analysis of the provided services, best practices are identified, listed and described to facilitate sharing of knowledge and dissemination.

Within this exercise, the analysis and benchmarking stages were combined into one: instead of a reference group, the reference used for comparison has been the global result, the indicator being the difference in service maturity between each city and the group average. This has proved to be a very constructive way of comparing, because it shows cities the areas where they excel as well as the areas where they have to improve without recurring to rankings which might not work on local government level due to very diverging external variables such as regional and national governance, local budgeting power etc.

City e-Government Benchlearning Survey – Methodological approach

The research is based on the Penteo’s METRICA, a five-stage measurement methodology that was chosen for conducting the benchlearning exercise. The first stage is related to the definition of suitable indicators, surveys and data-gathering process. On the second stage, the actual data-gathering process takes places. Once the information is gathered, the next stage starts: the information is processed and the indicators for the assessed cities are generated. Then, the fourth stage of the process takes place: with the generated city indicators, the scoring is calculated along with the distances towards the reference group. Finally, during the last stage, a report is generated stating the benchmarking stage results (scoring and comparison with reference group), including an interpretation of the results according to each particular case. (See: http://www.penteo.com/eng/metricas/presentacion.htm ).
City e-Government Benchmarking Survey - Key findings

The survey has been based on a sample of 15 European cities belonging to 10 different countries. The participant cities provided more than 1,200 inputs related with eighty-one different online services. These services were grouped according to nine main categories shaping the Global Services Catalogue. Online services have been measured based on Standard Coverage and Diversity.

The findings show at first place the existence of a set of standard services shared by all the participant cities. Despite the existing differences in public administration organization across European countries, an important number of common services shared by all local public administration can be found. That corpus of common services made it possible to perform well founded measurements in all the categories. It is quite remarkable that all the Global Catalogue categories achieve percentages of coverage in a range between 67% and 83%.

Second, local e-Government development in Europe is still below transaction level (level 3) being above 3 for only two out of the nine categories –Channelling and Urban planning.

Third, local e-Government is in general, perceived as highly adopted by citizens. The European average of perceived adoption is always above 3 and even above 3.5 for five out of the nine categories, which means that in average e-Services are being used by more people than initially expected.

Fourth, Web 2.0 is being incorporated to local e-Services provision, since several cities have yet started delivering level 5 services.

Fifth, additional services are more advanced than standard services. When analysing maturity it can be seen that additional services show better maturity marks than standard services.

Sixth, there is no evidence of relation between service maturity and perception of adoption. Although it could initially be thought that more advanced services will also be more adopted, this survey, based on the information analysed, does not prove that relation.

Regarding categories it has been found that most active categories are also those tightly related with EU-funded programs that intended to foster concrete key areas of governance (CORDIS 2008). Environment, Social care and Transport are the most active categories and at the same time are on the focus of current European policies at city level.

Finally, two additional outputs of the benchmarking exercise deserve to be remarked: the Global Cities Catalogue and the selection of best practices. The Global Cities Catalogue intends to bring together all the common outstanding services from all the cities as well as the specific local services that are worth mentioning. Besides, 95 services have been found as best practices. Among the services that show a high perceived adoption, those that clearly stand out from the maturity average can be considered as real best practices cases. Best practices have been listed by category, service and maturity, allowing easy detection of the most suitable examples to cover each city’s needs.

2.5. Discussion and conclusions

From the review of literature and practical-oriented research in the area of ICT for governance, it can be observed that over the last decade there has been a growing awareness of the need to consider ICT-enabled innovations for increasing citizens’ participation and opening-up governance models that allows a wider audience to contribute to the political debate and improve the quality of the public service delivery. This awareness has resulted in a number of innovative experiences and pilot projects especially at city government level.

In this context, while traditional ways of governing and engaging citizens will continue, the use of ICTs to enhance government service delivery policy development and decision-making provides opportunities for cities to engage and involve citizens and local communities in new ways, thus leading to possible novel models of ICT-enabled governance systems. In particular, the convergence of broadband with ICT-enabled innovations (e.g. especially user-driven applications based on social computing and mobile technologies) is transforming the way people use the Internet to communicate and interact. As most European citizens embrace
the "collaborative Internet" their expectation to be able to interact with city governments using ICTs and fully benefiting from their potential for participation shall increase.

This is pointed out also by the emergence of several concepts, often overlapping among them, where ICTs are seen as enabler of more and better participation (e-Participation), and democracy (e-Democracy) and more inclusive societies (inclusive e-Government and e-Inclusion). In this respect, e-Participation is defined as 'the use of ICTs to broaden and deepen political participation by enabling citizens to connect with one another and with their elected representatives [Macintosh, A.: e-Participation in policy-making: the research and the challenges. In: Exploiting the Knowledge Economy: Issues, Applications, Case Studies. IOS Press, Amsterdam (2006)]. e-Democracy instead has similar meaning to e-Participation but, as it later became increasingly used to mean specifically e-Voting, the concept of e-Participation has become commonly used to refer to the full spectrum of voter-representative communication means [Grönlund, Å.: Emerging Electronic Infrastructures - Exploring Democratic Components. Social Science Computer Review 21(1), 55–72 (spring 2003)]. In theory however, e-Democracy should cover a broader range of ICT-enabled activities than e-Participation. We attempt here to outline the relationships between the above mentioned concepts as part of a broader 'ICT-enabled complex' as in the figure 3 here below, where we also include other concepts we do not really discuss in this work, but that are strictly linked to the complex of ICT-enabled governance.

![Figure 3 'ICT-enabled complex'](image)

14 We refer here to the concept of complex as a whole that comprehends a number of intricate parts, especially one with interconnected or mutually related parts. See [http://en.wikipedia.org/wiki/Complex](http://en.wikipedia.org/wiki/Complex) or for a more elaborated discussion on Complex Dynamics, see for example: Hayles, N. Katherine, (1991), 'Chaos and Order: Complex Dynamics in science and literature', University of Chicago Press.

15 We define ICT-enabled governance in the EXPGOV Concept Paper.
Based on the analysis of the state of the art of research and practice in this field, it can be observed that while experiments and pilot projects are taking place at different governance level, it is at the city level that the appropriate use and integration of ICTs in the governance mechanisms can support social and institutional innovation, particularly in empowering officials and community representatives; ensuring social inclusion; providing timely, efficient, transparent and accountable services; improving the management of administrative operations; facilitating planning and policy making processes; monitoring and recording political decisions and assessing related socio-economic impacts in the municipalities and their locale.

More specifically, research in the area of e-Government at city level (EUROCITIES, 2009), shows that nowadays, most EU cities find themselves in a transition from traditional models of local public organisation to a new one more citizens oriented and in search of efficiency gains and effectiveness. At the same time, the relationship with citizens is changing from a scenario based on a multiplicity of specialized counters to a “one-stop-shop” model. What is behind this process is the transformation of the whole organization putting citizens at the centre of the action, that is creating in several cases a real citizen-oriented organization capable to understand who the citizen is and what are the citizen's needs in each case. In other words, these changes try to lead to proactiveness and an increase in public value. However, research is only recently starting to look at the "value proposition" of e-Services at city level.

Furthermore, as this transformation touches the core business of the local governance system, city governments must carefully manage the process in order to ensure a satisfactory socio-economic impact. Research identifies the need for city managers to gather evidence about what are the changes ICT-enabled innovations produce in the governance system and consequently how to remodel administrative procedures in a changing environment where the boundaries between the government and other governance actors (private sector and civil society organizations) is blurring (also due to emerging ICT-enabled user-generated services), and how to measure the progresses and outcomes of each initiative in order to assess their contribution to the overall socio-economic development in the urban context.

City governments, in addition to being close to citizens and business, constitute for many of them the main representation of government. The relationship of citizens and local authorities tends to be one based on proximity as the interests at stake for both parties are clearly entwined concerning issues such as urban development and planning, social services, environmental concerns and local politics. It is at the city level that the impact of ICT-enabled innovation on the relationship between governments and citizens can be most effective.

However, while it is recognized that ICT-enabled innovations are generating changes in the city government systems, the effects of such changes on governance processes and their impacts on specific policy areas are yet to be demonstrated.

In this connection, while research in the overlapping areas of e-Government, e-Participation and e-Inclusion at city level has been examining mainly the supply side and the sophistication of e-Services offered, reliable data on measuring the effects of ICTs on governance processes and the impacts on specific policy areas are lacking, and where existing not yet harmonized, incomplete or difficult to use for comparison in other contexts.

Further research is therefore required to better understand the implications of changes deriving from emerging ICT-enabled governance models, especially at city level, where, despite the recognized importance of the city government role and the plethora of examples of practices and case studies, it seems there is no evidence of: 1) the direct intervening effects of ICT-enabled innovations on city governance systems; 2) the indirect intervening effects of ICT-enabled innovations on the institutional settings themselves; and 3) the causal connection (if any) with policy outcomes, quality of service-delivery and socio-economic impacts.
In order to better understand the implications of these changes on governance systems it is required to consolidate the research analysis in this field and characterize the level of interaction between city government and other actors, the technology used, the stage in the policy-making process and various governance related issues and constraints, identifying the key enablers and the correlation (if any) between ICTs and improved quality of public service delivery, to ensure that ICT-driven initiatives would achieve a greater socio-economic impact.

Deeper empirical analysis is needed first of all to identify the drivers of change in emerging ICT-enabled governance models through an assessment of real cases implemented by city governments in Europe, aiming at substantiating the contribution of ICT-enabled services, as part of broader digital strategies and interventions on selected policy areas and to measure their specific socio-economic impact.
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