The role of e-government in building democratic governance

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Introduction

The anticipation and optimism behind e-government, when it first entered international consciousness was immense, a “prodigious vision” of sorts. Led in the US, most recently, by the Clinton-Gore administration and pursued by administrations in developed and developing countries alike, it became a mantra, a fix-all for the various problems in the public sector. As e-government implementation matured, the potential for significant failure became clearer. In the UK, it is estimated that 60% of expenditures either accrue no benefits or are wasted. In the US, no benefits were observed for more than $200 billion dollars of expenditures spread over 12 years (Heeks 1999). Yet, when successful, e-government projects could make a real difference. E-government, a significant part of Singapore’s “Vision of an Intelligent Island” with respect to public services, helped improve public sector performance and the quality of public services in a manner that positively impacted the daily lives of its citizens.

Tempered by the maturity of the e-government field, hype was countered to some extent by a pragmatic discourse on the practicalities of e-government. However the work on e-government continued to focus on the public services, and within this area, on technology. Roughly expressed, e-government is viewed as the use of information technology in government, with Government to Government (G2G), Government to Business (G2B), and Government to Citizens (G2C) as its main components. This failure to express the myriad aspects of governance, and accompanying conceptual prison limits e-government to mere use of ICTs in government and an uneven emphasis on technology.

In order to try to address these issues, we first introduce the concept of governance, on which e-government was founded (interchangeably referred to as governance, democratic governance or good governance). Next we discuss the evolution of the concept of governance. We acknowledge that the terminology and concepts have varied quite a bit over the years however we posit that we are looking at roughly comparable concepts over time. We then propose that the evolution of e-government has followed a path that is similar to that of the concept of governance and discuss the process of this evolution, ending in the present. We observe that in the last stages the evolution of e-government concepts has not kept up with the modern concept of democratic governance, and to address this problem, we propose a new, expanded definition of e-government. We then share some e-government examples in Latin American countries that fit in with this definition, including aspects such as social inclusion that are typically not paid much attention under most current e-government approaches. We end by presenting our conclusions and indicating directions for future research.

Governance and Democratic or Good Governance

The term "governance" is used in a variety of different contexts, in connection with several contemporary social sciences, especially economics and political science, and by international organizations and development organizations, such as the European Union and the World Bank. In this paper, we will retain the flexibility that the concept inherently requires, while at the same time fencing in the basic elements of governance. We will define the concept of governance, good governance, or democratic governance.
Although the latter term emphasizes the value of democracy, both terms have been commonly used to describe the desired elements of governance.

The word “govern” derives from the Latin word “gubernare” which means "to direct, rule, guide," originally "to steer" (Dictionary.com). The EU White Paper on governance defines governance as the means, rules, processes and behavior that affect the way in which powers are exercised. The five principles of openness, participation, accountability, effectiveness and coherence exercised within this framework encourage democratic governance.

The World Bank Institute defines governance as the traditions and institutions by which authority in a country is exercised. This includes (1) the process by which governments are selected, monitored and replaced (Voice and Accountability, Political Stability and Absence of Violence), (2) the capacity of the government to effectively formulate and implement sound policies (Government Effectiveness, and Regulatory Quality) and (3) the respect of citizens and the state for the institutions that govern economic and social interactions among them (Rule of Law, and Control of Corruption).

The Commonwealth Heads of Government Meeting in Harare in 1995 established some of the aspects of good governance namely democracy, democratic processes and institutions which reflect national circumstances, fundamental human rights, the rule of law and the independence of the judiciary, and just and honest government.

The United Nations identified the following characteristics of good governance: it is participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law (United Nations ESCAP). 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. It is also responsive to the present and future needs of society.

**Governance: A Short History**

A history of governance will necessarily start with a much narrower focus than the term “governance” would typically imply. Traditionally attention has been focused on the functioning of governments and the public sector bureaucracy and not “governance” in the sense is used today. The study of governments involved looking at the ways in which institutions interact in the processes of policy making and implementation in a nation. The use of the modern term “governance” indicates that the analytical framework for analysis of governments has broadened to take into account a richer and more complex understanding of the functioning of a country’s government. Therefore in this section, we will talk variously about “government” and “bureaucracy”, and towards the end “governance” and all that it implies today.

**Weberian models of the State and the Bureaucracy**

The concept of governance has its origin in the theory of the state and the functions of the state. In this section, we will review the Weberian state and its notion of governance, as it was understood at that time. The rise of the "modern state" as a public power constituting the supreme political authority within a defined territory is associated with western Europe's gradual institutional development beginning in earnest in the late 15th century (Wikipedia). As there was a drive to centralize in Western Europe’s dynastic states aimed at increasing both political and economic power, many of the features associated with the "modern state" came into being. Max Weber's *Politics as a Vocation* defined elements of the state, a definition that is still applicable in most Western states.
According to Weber, the modern state holds the monopoly over the means of legitimate physical violence over a specified territory. The monopoly is not ad-hoc but derives from a rich legal and philosophical framework that cements the right in moral and legal terms, and is constrained by rational rules meant to discourage egregious violations of this responsibility.

Weber developed one of the earliest models of bureaucracy in his Economy and Society. He identified three key features of bureaucratic organizations (Jain 2004):

- Firstly, bureaucracies had a formal and unambiguous hierarchical structure of power and authority,
- Secondly, bureaucracies had an elaborate, rationally derived and systematic division of labor,
- Thirdly, bureaucracies were governed by a set of general, formal, explicit, exhaustive and largely stable rules that were impersonally applied in decision-making; moreover, all decisions and communications were recorded in permanent files and such records were used to refine existing rules and derive new ones. This is a bureaucracy that is instinctively centralist, bound by procedures and rules, focused on bureaucracy and legality, and driven by an ethos of public service.

This view of the state and the bureaucracy had a somewhat paternalistic view of governance, which as per the Latin meaning of govern had a focus on “rowing” the boat, rather than “steering the boat” made famous by New Public Management (discussed later). The Weberian model continued to be a fairly established notion of the state until the 1970s. The “sovereign rationality-bound State” (Olsen 1988) of this period implied a centralized state where: “democracy and political administrative control are hierarchically defined according to the 'parliamentary chain' and the mandate given to political leaders through the election channel. In elections, the people select representatives to political bodies, executive power is based on the political majority and the executive has at its disposal, a neutral civil service with a wealth of professional expertise, which prepares and implements public policy, including reforms” which form the main elements of governance” (Christiansen 2002).

In the years preceding “New Public Management, many concepts inherited from Weberian times continued. Some authors have made attempts to define what “old public administration” was. Denhardt and Denhardt define old public administration as follows:

- Public administration is politically neutral, valuing the idea of neutral competence.
- The focus of government is the direct delivery of services. The best organizational structure is a centralized bureaucracy.
- Programs are implemented through top-down control mechanisms, limiting discretion as much as possible. Bureaucracies seek to be closed systems to the extent possible, thus limiting citizen involvement.
- Efficiency and rationality are the most important values in public organizations.
- Public administrators do not play a central role in policy making and governance; rather, they are charged with the efficient implementation of public objectives.
- The job of public administrators is described by Gulick’s POSDCORB (Planning, Organizing, Staffing, Directing, Coordinating, Reporting, Budgeting).

The governance features under this model can be summarized as administration within a rational, legalistic, hierarchical and centralized framework, operating in a closed framework with minimal participation of the citizens in bureaucratic policy making. Services are delivered directly to the public through purely public sector channels.
The traditional view of public administration, bureaucracy and the concept of governing was soon challenged by the Supermarket model of the state, and then by New Public Management.

**Supermarket model of the state**

The traditional models of the state and the functions of the state were countered with other non-hierarchical models. One of these was an alternative model of democracy and political-administrative control, coined “the supermarket state” by Olsen in *Organizing Governance: Governing Organizations* (Olsen 1988). In this model, the role of the government as service provider was assumed to the most important role, with an emphasis on efficiency, effectiveness and quality. Citizens are viewed as clients with the government playing the role of the service provider. As opposed to the previous mode, where the state is in control, in this model citizens hold the power, with the Government acting in response to the law of supply and demand. This model does not take into account the dynamics of the political economy equation or with non-demand factors such as transparency. On the plus side, this model does take into account the importance of citizen needs.

The governance features in the supermarket state relate mostly to the quality of services provided by the government, with an emphasis on efficiency, effectiveness and quality to the possible exclusion of other factors (whereas the centralized state focuses on procedures, controls and hierarchy at the possible cost of the needs of the citizen).

**New Public Management**

A compromise between the Weberian model of the state and the supermarket state led to the “New Public management” philosophy that, many feel, retained more features of the supermarket state than the Weberian state. New Public Management (NPM) is a label for administrative reforms first used by Hood in 1991. “New Public Management” refers to “a cluster of ideas and practices (including reinvention and neo-managerialism) that seek, at their core, to use private-sector and business approaches in the public sector” (Christensen 2002).

NPM was based very much on economic theory with the use of concepts such as principal-agent models and transaction cost models, and the application of game theory constructs in the public domain, and where the ultimate objectives are to make the political-administrative system more efficient, streamlined, and consistent. Complicated as the applications of these economic theories may be, NPM simplified the government and its functioning by abstracting the complexities of governance into mathematical models. Public sector ethics, institutional issues, and cultural aspects were not paid much attention under NPM.

The main components of NPM are hands-on professional management, which allows for active, visible, discretionary control of an organization by people who are free to manage; explicit standards of performance; a greater emphasis on output control; increased competition; contracts; devolution; disaggregation of units; and private sector management techniques (Hood 1991). Ferlie et al. (1996) distinguish between four different NPM models: the efficiency drive, downsizing and decentralization, in search of excellence and public service orientation. NPM promised to integrate these themes, linking efficiency and accountability together.

Within the World Bank, for example, a lot of the work around governance was focused on issues such as wage reform, pay and employment models and the optimal size of the civil service with a focus on downsizing.
This focus was further strengthened with the debt crisis in Latin America in the 1980s-1990s, with the emphasis downsizing in an effort to reduce budget deficits and address the inefficiencies engendered by state-led development strategies. The emphasis on markets can be seen in the following:

“Good governance, for the World Bank, is synonymous with sound development management… [It] is central to creating and sustaining an environment which fosters strong and equitable development, and it is an essential complement to sound economic policies. Governments play a key role in the provision of public goods. They establish the rules that make markets work efficiently and, more problematically, they correct for market failure. In order to play this role, they need revenues, and agents to collect revenues and produce the public goods. This in turn requires systems of accountability, adequate and reliable information, and efficiency in resource management and the delivery of public services.”

(From Governance and Development, World Bank, 1992)

Osborne and Gaebler provided a number of principles through which “public entrepreneurs” might bring about public sector reform that were also a part of New Public Management. The model represents a basic, “paradigm shift” from the New Deal paradigm of 1930s to 1960s toward the “entrepreneurial government”. This consists of ten principles:

“Most entrepreneurial governments promote competition between service providers. They empower citizens by pushing control out of the bureaucracy, into the community. They measure the performance of their agencies, focusing not on inputs but on outcomes. They are driven by their goals—their missions—not by their rules and regulations. They redefine their clients as customers and offer them choices… They prevent problems before they emerge, rather than simply offering services afterward. They put their energies into earning money, not simply spending it. They decentralize authority, embracing participatory management. They prefer market mechanisms to bureaucratic mechanisms. And they focus not simply on providing public services, but on catalyzing all sectors—public, private, and voluntary—into action to solve their community problems.” (Osborne and Gaebler, 1993)

In the United States, the call to “run government like a business,” was sparked in the 1990s by President Clinton’s and Vice President Gore’s initiative to “make government work better and cost less” was influenced by Osborne and Gaebler’s work..

The features of NPM can be seen as somewhat contradictory to each other, with regard to the combination of economic theory and the managerial school. The economic theory part of NPM focuses on public choice, principal agent theory, and the importance of public choice. The managerial school emphasizes the importance of management principles in bureaucracy. The contractual elements of the former would incentivize centralization, whereas the latter would encourage decentralization. With respect to governance, this model emphasizes public choice, the separation of policy making and policy implementation, and the use of market mechanisms to address public sector problems (Christenson 2002).

**Global Governance**

In the last decade, there has been increasing discussion of "global governance." Scholars and practitioners alike are arguing that new forms of authority are emerging through global and regional policy processes that coexist alongside nation-state processes. Economic globalization and regional integration are changing the concept of governance and forcing the need for international institutional cooperation. Increasing globalization is revealing two gaps in governance. One is the need to take into account global issues when working with governance issues within a country. The other gap is the need for governments to collaborate much more actively to collectively manage global issues such as the regulation of financial flows, money laundering, common property problems such as environmental protection, and intellectual property safeguards.
Governing by consensus is becoming more common with the emergence of private regimes, international standard setting and global policy communities. Policy networks including both public and private entities and informal agreements are leading to policies – both formal and informal. Problems such as organized crime, terrorism, human rights, the environment, finance, and trade, are forcing governments, private sector entities and other organization to participate in governance processes through exchange of data, coordination of regulations and laws, market coordination. Subnational entities from both the public sector and private sectors are working internationally on specific issues (the police, the judiciary, financial intermediaries, stock exchanges) related to governance. Entities that are involved include a wide gamut of actors including associations, government agencies, transnational public-private partnerships, heads of state, businesses and business associations, NGOs, civil society, international agencies, and policy-based organizations around a host of issues. These entities are working together to reach consensus, agreeing to give or take on authority, making decisions, formed policies and sharing funding.

The conceptual problem this presents for analysts is that multi-dimensional models of multiple actors across a timeframe is hard to conceptualize and capture in any model. When we try to capture this complexity we find that:

“Global policy processes are more fluid and fragmented than might be found in stable political systems of most OECD nations. Instead, disorder and unpredictability are the norm. As a result of the vast differences in policy style, structure, institutional setup, powers, and resources of global policy arrangements and regulatory frameworks, there is no consistent pattern of global policy processes. To the contrary, the bewildering array of public action is complicated by its often semiprivate composition. The absence of, or constantly contested, authority structures within the global agora mean far greater time and effort is also spent convening, debating, and negotiating in arenas created by interlocutors in order to promote compliance rather than exert enforcement”
(Stone 2008)

The features of global governance relate to the governance issues created by the ubiquity of spontaneous, amorphous, transnational organizations, often traditional institution features, with network effects embedded in many governance issues. This creates the problems associated with lack of formal coordination and policy making mechanisms, the challenge of coping with a dynamic and changing environment, and dealing transnationally with fast propagating problems and spillovers in a coherent manner.

**Viral Governance of Networks**

A particular aspect of global governance worth commenting on is the increasing ubiquity of networks in the governance framework. For instance, if we look at government effectiveness in the area of efficiency of health expenditures and policy, we find that structure and dynamics of the networks can have a strong impact on disease proliferation (Altmann 1990). For instance it has been found that drug users' social networks are an important target for overdose prevention interventions. In another study, after accounting for health and functional status, women aged 75 years who had limited familiarity and contact with local merchants and who had lived less than ten years in the community had an increased mortality risk (Yasuda 1997). In addition to policy issues, networks are also becoming more prevalent in international governance related issues. Often global problems are better addresses by "networked government" responses. Transnational executive networks offer a system of "checks and balances" to ensure accountability and public responsiveness Countries need to rethink civil service training in order to fully and effectively negotiate global policy processes, and the citizenry needs to consider these new domains for the pursuit of democratic accountability.
For policy issues, it means a greater engagement with the increasingly related research communities of engineering, international relations, political economy, and organization studies.

The increasingly important role of networks as can be seen in the events of September 11. This involved casualties from approximately 80 nations and were executed by operatives of an international terrorist network, al-Qaeda, with elements in perhaps 60 countries worldwide. Responses came from single countries, the European Union, NATO, the 56-nation Organization of the Islamic Conference, and many loosely networked actors. (O’Toole 2002). We will fail to deal with transnational issues of governance if we only think in terms of traditional structures and frameworks.

The features of viral governance, which can be seen as a part of global governance, focus on the governance issues created by the ubiquity of networks and the transmission of both benefits and problems throughout networks.

**Democratic Governance**

In the modern world, in addition to global governance and related issues, we are also talking about democratic governance. Public discourse on governance these days has an undertone of concern for citizenship and democracy. This is very especially visible in political theory, public debate, international agendas and among civil society. Although NPM also incorporates public choice with government responsibility, democratic governance adds the additional element of active citizen participation in all aspects of governance, and the need for governments to share authorities and controls through collaboration with citizens and the private sector. Adding to NPM’s managerialist emphasis on efficiency, there is now an acknowledged need for the responsibility of the public manager and on mutual trust and collaboration. In this new environment, it has been argued that “in a democratic society, a concern for democratic values should be paramount in the way we think about systems of governance. Values such as efficiency and productivity should not be lost, but should be placed in the larger context of democracy, community, and the public interest” (Denhardt 2000).

The features of democratic governance are an emphasis on citizenship and democracy. This is in addition to the other characteristics of good governance.

**A new definition of governance**

When we combine democratic governance with global governance, we argue that we come to a fuller and more complete understanding of governance. Regardless of the terminology used, some common elements of democratic governance emerge from the above discussion. There is agreement that governance relates to how authority and power in a country are exercised. Authority is generally exercised through rules, capacity, processes, behaviors, institutions, perception, influence and traditions. Therefore we can say: Governance relates not only to how authority and power in a country (including at a sub-national level) are exercised through rules, capacities, processes, behaviors, institutions, perception, influence, networks and traditions, but also transnationally and globally, involving various actors and mechanisms including individuals, as well as formal and informal institutions and entities. Democratic governance or good governance includes fundamental elements such as democracy, democratic processes and institutions which reflect national circumstances, fundamental human rights, the rule of law and the independence of the judiciary, effective, just and honest government, openness, participation/inclusiveness, accountability, effectiveness and coherence. 

<Table 1>
E-government

E-government is a label that has been used to describe a wide range of applications and objectives.

The World Bank has defined e-government as follows: “E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions”.

The United Nations says that e-government encompasses the capacity and the willingness of the public sector to deploy ICT for improving knowledge and information in the service of the citizen. Capacity espouses financial, infrastructural, human capital, regulatory, administrative and systemic capability of the state. The willingness, on part of the government, to provide information and knowledge for the empowerment of the citizen is a testament to the government’s commitment (UNKB).

Gartner Group defines e-government as: “the continuous optimization of service delivery, constituency participation, and governance by transforming internal and external relationships through technology, the Internet and new media”. Accenture’s (2007) reports, while stating that e-government is only a small part of a bigger pie, highlights the four “pillars of leadership in customer service”: a “citizen-centred perspective”, a “cohesive multi-channel service”, “fluid cross-government service” and “proactive communication,” capturing the customer orientation in e-government, and the focus on service delivery.

The OECD uses the term “e-government” in reference to the use of new information and communication technologies (ICTs) by governments as applied to the full range of government functions, and comments that the networking potential offered by the Internet and related technologies has the potential to transform the structures and operation of government. Wikipedia defines e-government as the use of internet technology as a platform for exchanging information, providing services and transacting with citizens, businesses, and other arms of government, and applied by the legislature, judiciary, or administration, in order to improve internal efficiency, the delivery of public services, or processes of democratic governance. The most important anticipated benefits of e-government include improved efficiency, convenience, and better accessibility of public services.

Relationship between e-government and governance

We argue that the definitions of e-government provided to date fail to take into account the broader aspects of governance. This lack of understanding leads to a conceptual prison which prevents us from accounting for all the needed aspects of e-government in formulation of policy and other governance activities. To reach a more complete understanding of what we mean by e-government, we would need to look at the development of e-government in parallel with the evolving context of governance as described above. As e-government is a term that is fairly new, in order to trace the history of e-government, we will include previous concepts that to the best of our knowledge are equivalent to e-government (such as computerization). E-government, in the beginning (and sometimes in modern times too) was simply the use of computers (or technology) in the public administration function. Although early literature went close to capturing the full potential of e-government, reality was a lot less sophisticated.
We know that the literature on e-government was very rich in the 1960-80s. For example, Fritz Machlup's with his key work *The Production and Distribution of Knowledge in the United States* (Machlup 1962), first came up with the concept of the information society. In 1973, Daniel Bell, in his *The Coming of Post-Industrial Society*, foresaw the evolution of society as a post-industrial society where knowledge has displaced property as the central preoccupation, and the prime source of power and social dynamism. It is therefore also one in which technicians and professionals are the ‘pre-eminent’ social groups, as well as one in which the service industries are more important than manufacturing (Bell 1973).

In the early 1980s, in *The Information society as post-industrial society*, Yoneji Masuda predicted that a combination of computer and communications technology would bring “the increasing emancipation of man from labor for subsistence” (Masuda 1980). Remarkably he was the first to talk about how technology could help bring about a truly participatory democracy. Unfortunately, as mentioned before, the ideas during this period were far more advanced than actual implementation.

**Systems thinking and the Weberian philosophy**

When we look at how technology was used in government, we find that to a large extent, the evolution of the use of technology in the government paralleled the development of governance. If we look at the first row in Table 1, we see that systems thinking is similar to Weberian organization thinking. Features of Weberian bureaucratic organizations include hierarchical structures, maintenance of division of labor, and governance by rules.

Hierarchy results in vertical differentiation while division of labor entails horizontal differentiation within an organization’s structure. This way of thinking about bureaucratic organizations has many parallels with systems thinking. Systems thinking, of systems theory was fundamental to the way information systems development was viewed: *The concept of ‘system’ embodies the notion of a collection of elements connected together to form a whole. Systems thinking uses this concept to help understand the world. Central to the approach are the ideas of emergence and hierarchy, and communication and control. Systems practice employs systems ideas to design and manage complex processes and artifacts for the benefit of individuals, organizations and society* (MASCLA 2008).

This kind of systems thinking led to the earliest applications of technology in government, which were simple automation of systems. The first such automation took place in the 1880s. The origin of information technology in government can be traced back to Herman Hollerith who worked for the US Census Bureau in the 1880s. He developed a tabulating machine based on punched cards, which was first used for the 1890 national census, and subsequently for tabulating military payroll (Heeks 1999). Herman Hollerith went on to found IBM. In this section, we examine three examples of systems thinking from 1940s to roughly around the 1970s: during World War II, the US Social Security System, Defense, and Financial Management systems.

**Second World War and use of ICTs**

In the 1940s, due to the Second World War, a lot of the computer use by the government took place in the military. In June 1, 1944 Bletchley Park, a center for code-breaking in Britian¹ had developed

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¹ Bletchley Park is 40 miles northwest of London between Cambridge and Oxford, later renamed Government Code and Cypher School (GC&CS also referred to as the “Golf, Cheese and Chess Society”) commanded by Alastair Denniston,
Colossus I by 1943, one of the early electronic computers. Its successor, Colossus II, went into operation on June 1, 1944, confirming that Hitler expected the D-Day invasion at Calais, not Normandy. Another electronic computer, the Harvard Mark I developed by Howard Aiken and IBM in 1944 helped the US Navy to compute mathematical and navigation tables. German engineer Konrad Zuse had developed by 1941 a computer, the Z3, to design airplanes and missiles but it was kept secret and never exploited by the Germans.

The US Social Security System

One of the earliest large scale projects of a government was the Social Security System developed by the Social Security Administration (SSA) in the US. In the late 1950s, continuing until the 1960s, as information technology steadily improved, and starting with punched cards and automatic sorting machines, SSA developed a special relationship with IBM. SSA was a leader in use of information technology through much of this period, although as late as 1971, SSA operations, like those of other data-handling organizations, were still heavily paper-based (SSA 2008). In its first few years, 1935 to 1939, SSA began to establish a reputation as a highly efficient and well-managed agency. It was able to recruit a well-qualified staff, set high standards for data security and privacy and for responsiveness to client needs, and maintain low administrative costs. SSA then enjoyed a high degree of autonomy. Its needs for data-handling equipment stretched or exceeded the limits of then available technology, but the agency was able to work closely with manufacturers to push the state of the art. Commissioners were experienced managers and maintained a good balance between attention to daily operations and insistence on long-range planning for technological development.

Defense and ICTs

In the 1950s the early mainframe computers were used by the government in defense, and in science intensive areas, where the expertise to use these systems could be found. However they were very expensive, costing between $1,250,000 and $1,500,000. Computerization became much more prevalent in the 1960s when mainframes became cheaper and more powerful and there was a push to centralize large administrative operations around batch processing locations. However private sector uptake was much quicker, and the first computerized transaction-processing system SABRE the airline reservation system, was in the private sector (American Airlines and IBM).

The period up until about 1960 saw a limited use of information and communication technologies in the public domain. This use was mostly for “back office” functions, typically data processing applications, with the military being a heavy user. Systems thinking dominated and there was a strict separation between IT staff and the rest of the public sector employees (Dunleavy 2006).

Evolution of financial management systems

In the 1960s computers were increasingly used for holding financial information for the government and contributed greatly to the greater systematization and (generally) to the improvement of government accounting systems. The development of networks, remote terminals, and financial information systems meant that “front office” functions also started to be computerized. The separation between the “back office” technical staff and the rest of the staff started to decrease.

including geniuses such as Ian Fleming, later author of the James Bond novels, and Alan Turing who developed a theory of the electronic computer. From Code Breaking in World War II
However many government financial systems were still paper-based systems indexed by computer or linked to automated payment systems, and the public sector lagged behind the private sector.

In middle 1970s, state administration and large companies applied information and telecommunication technologies to a considerable extent for automation, while in mid-80s ICT entered into small and medium-sized enterprises. Public sector organizations undergoing computerization during this time saw computerization’s primary use in terms of increasing efficiency. The automation within existing manual procedures would cut staff costs. In the 1980s with the invention of the IBM personal computer and the advent of MS-DOS started a trend towards desktop computing (and accessing the internet after 1995). There was a considerable lag in many countries where government organizations remained wedded to dumb terminal network systems, and managers and policymakers in government had low levels of computer literacy.

**Influence of NPM on use of ICTs**

As mentioned in the preceding section, the 1990s saw the emergence of New Public Management ideas and that use private-sector and business approaches in the public sector, with an emphasis on economic theory and managerialism. E-government was seen by some as the next step in the rationalization of government activities along the line of new public management (NPM). The use of ICTs in public administration was dominated by the principles of efficiency, accountability, decentralization and marketization, the same drivers for NPM policies. Under great fiscal pressure, public sector organizations saw computers as a measure to cut costs, increase efficiency and contribute to the rationalization of the public administration (PA). ICT at that time was seen as the key to the reinvention and re-invigoration of public administration (Heeks 1999). ICTs were viewed as a powerful tool to increase the efficiency of market mechanisms in terms of lower transactions costs, improved efficiency and the increased possibility of customer-oriented services. In this section we look at the period from the 1990s to around early 2000.

**The NPM Agenda and ICTs**

ICTs could impact on Heeks’ four classical ‘pillars’ of the NPM agenda: efficiency (automation of manual processes), accountability (automation of performance measurement citizen score cards, information sharing), decentralization (focus on information needs at municipal level, support for federalization) and “marketization” (relationship between the public sector, private sector and citizens with a view to strengthening the use of market forces (Heeks 1999). To this we would add another dimension “service delivery”, which is captured across all the four pillars. With its emphasis on the role of government as service provider, service delivery was what found most common ground with NPM. All these approaches identify the main problem of public sector organization as resting with bureaucratic institutions, and propose in various ways to bypass bureaucratic accountability which is seen as cumbersome, inefficient and unproductive.

The term “e-government” started being used in the 1990s to express a different vision of information technology – the term information technology diffusion in the context of public sector reform came into common parlance, and with the use of this term, came the acknowledgement that simple computerization was not enough, the technologies needed to fully integrated into the organization and serve a wider range of purposes.
Until the 1990s the federal government, like much of the business world, used information technology to automate backroom operations, with little to no emphasis on automating “customer-facing” functions such as information dissemination or service delivery.\(^2\)

Starting around the late 1990s, there was a definite shift away from simply backroom operations. Let us look at the situation in the US to illustrate the shift. For example, the federal Chief Information Officer’s Council began emphasizing IT projects that offered “service to the citizen.” At about the same time, the administration was conducting the National Performance Review (NPR or Reengineering Government) effort, which placed strong emphasis on IT-enabled government. The NPR report “Access America: Reengineering Through Information Technology” in February 1997 had one of the first references to electronic government.

In this report, for the first time, there was a shift in emphasis from efficiency to service delivery through technology. This was followed by the first presidential-level directive to federal agencies on e-government in December 1999. The FirstGov.gov Web site of the year 2000 declared that it was “the official U.S. gateway to all government information.”

**Many other organizations also got into the job of defining e-government**

The National Science Foundation (NSF) used the term “digital government” and led an exercise to define a vision for digital government, involving many other organizations and individuals. The Council of Excellence in Government also did the same. The National Research Council, with the support of NSF’s Digital Government program, identified technical areas where government investment in IT research would have an impact on the creation of advanced, innovative e-government capabilities.

Therefore we see that through much of the 1990s and 2000s the NPM-inspired vision of e-government saw a shift from mere automation and cost savings to service delivery, decentralization, and the use of ICT for both back office and front office functions. However the true impact of globalization was yet to be felt.

**Global vision of e-government**

In this decade, increasing globalization has led to the emphasis on the use of ICT to enhance global governance. ICT and its networking ability is being used to better manage global impact on domestic security, trade facilitation (e.g. customs systems and the issue of contraband), judicial reform (immigration systems). At a different level, various entities are using ICTs to collaborate much more actively to collectively manage global issues such as the regulation of financial flows, money laundering, common property problems such as environmental protection, and intellectual property safeguards.

\(^2\) In many ways, this strategic focus reflected a mainframe processing mentality that had dominated federal IT policy and strategy since the 1960s related to the passage of the Brooks Act of 1949. Under the Brooks Act, one federal agency, the General Services Administration (GSA), was responsible for acquiring IT on behalf of federal agencies. Although the GSA had an elaborate process for delegating this procurement authority to federal agencies, this degree of centralization in IT governance represented a focus on using IT to save money in backroom operations. As a result, the primary criteria for evaluating IT investments were economy and efficiency, so all systems were justified on a “least cost” basis. Interagency IT efforts focused on consolidation efforts such as the Department of Agriculture’s National Finance Center for payroll and accounting, which sought to standardize financial systems based on commercial off-the-shelf products and to eliminate duplicative personnel systems.
The emphasis on the networked use of ICT has brought to the fore issues such as the effect of Web 2.0 on government.

**Web 2.0 and Government: A governance ecosystem**

There is some debate about what Web 2.0 really is. O’Reilly defines Web 2.0’s core competencies as:

- Services, not packaged software, with cost-effective scalability
- Control over unique, hard-to-recreate data sources that get richer as more people use them
- Trusting users as co-developers
- Harnessing collective intelligence
- Leveraging the long tail through customer self-service
- Software above the level of a single device
- Lightweight user interfaces, development models, and business models

Deloitte Research defines Government 2.0 as networked, collaborative and flexible as its operating model features, with service delivery as personalized, choice-based and multi-channel, performance driven (outcome based and transparent), and participative decision making, facilitated by Web 2.0 tools and services. The benefits are expected to be improved policy outcomes, more effective use of government information, streamlined internal operations and attraction of top talent. Others comment on Web 2.0 as relating to an interactive interface, social network, user contribution/participation, and sharing through users exposing data as well as obtaining data from somewhere else (Ogasawara 2007).

Perhaps the best way to illustrate the potential effects of Web 2.0 on governance is through an example. In Canada, in December 2007, Industry Minister Jim Prentice was planning to propose some controversial changes involving DRM to the federal Copyright Act. As a result of the use of Web 2.0 tools, Youtube, Facebook, blogs, there was a grassroots movement against those changes. 50 people showing up before the vote, heated blogs, social networking activity, online discussions and the delivery of thousands of e-mails and letters led the minister to ask for the revision of sections of the document dealing with digital rights management (DRM) and anti-circumvention technology (McMurdy 2008).

The Sunlight Foundation in the US is an excellent example of how the Web 2.0 is being used to improve governance. Sunlight Foundation is an educational organization founded on the premise that increased transparency will improve the conduct of Congress, increase the public’s confidence in government, and foster more openness and accountability in government. Their ultimate goal is to strengthen the relationship between citizens and their elected officials and to foster public trust in Congress.

Their work relates to helping citizens, bloggers and journalists be their own best congressional watchdogs, by improving access to existing information and digitizing new information, and by creating new tools and Web sites to enable citizens to collaborate in fostering greater transparency. Since 2006, they have assembled and funded an array of web-based databases and tools including OpenCongress.org, Congresspedia.org, FedSpending.org, OpenSecrets.org, EarmarkWatch.org and LOUISdb.org, sites which make millions of bits of information available online about the members of Congress, their staff, legislation, federal spending and lobbyists. Sunlight Foundation’s best known success is its reporting on Dennis Hastert's fraudulent real estate investments.
We have discussed various aspects of e-government in practice, as it is being used today. The standard definitions of e-government that we started with no longer describe all the scenarios we are faced with today. However the e-government agenda is being driven mostly by technical specialists who do not focus on a wide range of governance issues that need to be addressed. The preferred area of focus is on services, admittedly an important aspect of government functioning but certainly not the only area needing attention. In addition, the customer service orientation glosses over some of the most fundamental issues in politics, issues with implications for the distribution of power and benefits in society and for related questions of social justice, replacing them with a simple slogan such as ‘putting customers first’ (Cordella 268). E-government continues to have an overwhelming emphasis on isolated technology, and public sector practitioners continued to stay at the periphery of the burgeoning research and business activity in the field of e-government. There is a universal complaint on this issue from practitioners from both IT and the public sector. For instance here are citations from only a few of those studies:

“Most of the inquiries into e-government focus on services available, technical capacities, and usage information” (Jaeger 2006).

“The main implementation of ICTs, namely, as e-government and e-governance, has not been systematically differentiated. Nearly all observers treat them equivalently, not discretely” (Calista 2007).

“Recent approaches to e-government neglect these important dimensions of bureaucracy” (Cordella 2007).

“Current E-Government research does not offer adequate clarity on the issue of how E-Government and bureaucracy impact each other in reciprocal ways” (Jain 2004)

At the same time government bureaucrats do not have the knowledge of technology that they need (Dunleavy 2006). In the study, "Information Technology and Government: The Need for New Leadership," concluded that "poor leadership on IT issues and initiatives is a significant drag on governmental performance" (Mechling). Half of the 418 public-sector IT professionals, general managers and elected officials surveyed for the project said top government leaders and legislators have little understanding of technology and how to use it. However the public sector need to be fully abreast with technology to be able to take advantage of the tools available today, including Web 2.0 to provide improved policy making, increased citizen participation, and improved services, to name but a few of the advantages of e-government, and for this we need to have a more complete definition of e-government.

Therefore, e-government, if we are to continue to use the word to describe all the phenomena we now see, is now much more than use of technology in Government. E-government involves the transformation of the government in relation to itself, citizens, businesses and other stakeholders through the intelligent use of technology. However, beyond this, e-government should also take into account the use of technology in all aspects of governance, as it was defined above. Therefore we can define e-government as the transformative use of technology and networks to support the use of authority and power in a country (at all levels) not only through enabling rules, capacities, processes, behaviors, institutions, and traditions, but also transnationally and globally, involving various actors and mechanisms including individuals, as well as formal and informal institutions and entities. In this context, e-government also supports fundamental elements of good governance such as democracy, democratic processes and institutions which reflect national circumstances, fundamental human rights, the rule of law and the independence of the judiciary, effective, just and honest government, openness, participation /inclusiveness, accountability, effectiveness and coherence.
We shall now briefly review some of these important aspects of e-government as they are being applied to countries in Latin America, and ranging from partially successful to fully successful (summarized in Table 2 below).

**Uruguay**

**Social Inclusion: Montevideo**

The Uruguayan government adopted a new legal framework for registering and identifying citizens using e-government technology, targeted towards the poorest in Montevideo. Seventeen percent of Uruguayan babies are born at Pereira Rossell Hospital in Montevideo. Names of babies, parents, and identification card numbers of the parent are sent electronically from the hospital’s server to the National Civil Identification Directorate, which assigns an identity number to the baby and then sends this information to the National Civil Registry, where the rights associated with a person’s identity are established through the registration of one parent.

This is a new process to streamline citizen identification and registration using electronic systems to connect three entities, belonging to three different ministries, as part of a pilot project initiated by the Uruguayan government in October 2007. The pilot project aims to modernize the citizen identification and registration processes, as well as to generate basic demographic statistics on the country’s citizens. Having an integrated system decreases the number of undocumented children; and more importantly facilitates resource allocation for social programs aimed at young children, starting the government’s relationship with its citizens from birth, and facilitates the paperwork of citizenship. This is all targeted to the goal of serving citizens better, including granting people their rights and is a good example of using e-government to promote social inclusion.

**Brazil**

**Participatory democracy**

Porto Alegrê in Brazil goes beyond offering online public services: it utilizes the Internet to bring the common citizen directly into the decision making process. Through the “Orçamento Participativo” (OP) initiative, citizens decide on services to be offered and investments to be undertaken by the local government. Residents of Porto Alegre can obtain a username and password and register their suggestions and requests online.

They can also use the web to accompany the course of negotiations. OP contacts registered participants via e-mail whenever necessary. With the municipal elections of 2000, Brazil became the first country in the world to have a fully electronic electoral process in all of its municipalities. In the 2002 presidential elections, official results were known in less than twenty-four hours in all of the 26 states. These are illustrations of how e-government is working well to promote participatory democracy

**Federal e-government**

E-government in Brazil is not restricted to the federal level. State and municipal governments also offer numerous services that disclose information to citizens electronically. In the state of São Paulo, one can pay a water bill or report a stolen vehicle, mobile phone, or identification card. In the state of Pernambuco, citizens can denounce environmental crimes or consult taxpayers’ irregularities. In the state of Paraná, drivers can dispute traffic tickets and consumers can check the probity of businesses. Aracaju, Campinas, Cuiabá, Curitiba, Goiânia, Londrina, Manaus, Natal, Palmas, Recife, Rio de Janeiro, Santo André, São Luís, São Paulo, Teresina, and Vitória are just some of the cities that offer...
various online services, ranging from government procurement to sewer treatment requests. This example outlines the need for e-government to take into account sub-national needs in countries

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**Chile**

**Access to Information**

Chile’s “Trámite Facil”, a one-stop shop to government online, is an example of the “transaction” type of e-government, which goes beyond pure disclosure of information online. The country has advanced intra-agency IT platforms and the process of inter-agency coordination to a sufficient degree to be able to make available to users online services provided by the state through this portal. The site is organized by area of government action and allows for immediate access to services without the need to know which agency is responsible for offering it. For most of the transactions listed, detailed information is available, as well as online forms that can be downloaded or submitted via e-mail. Some transactions, payable by credit card, can be completed online (for example, civil registry certificates). Taxes can be filed and paid online as well.

The Chilean e-system also provides, online, all the information related to procurement operations, including the public agency’s pro-file and the name, title, address, phone number, e-mail, and fax number of the public officer in charge of the operation. Finally, the system gives information on the results of the bidding: who participated, their economic and technical scores, their economic proposals, who won the bid, and historical information on the public agency’s purchases and contracts. The Government Procurement Act makes participation in the e-system mandatory for all public agencies over the medium term. The system will be incorporated gradually, however, to allow for modifications resulting from lessons gathered during the pilot plan. A private company manages the e-system as a way to obtain its maximum efficiency and dynamism, generate savings in public administrative costs, and encourage the growth and development of e-commerce in Chile.

Tramite Facil is a good example of an e-government application implementing access to information, public-private partnerships, and citizen services.

**Argentina**

**Transparency**

Portal [www.cristal.gov.ar](http://www.cristal.gov.ar) The mission of the *Cristal* initiative was to disseminate online, and in an easily understood format, all information concerning the use of public funds in Argentina. This site included information about the funds devoted to different programs, and how these funds were administered. The *Cristal* website was specifically created to fulfill the mandate established under Article 8 of the Fiscal Responsibility Law 25152/99, which mandates that the State avail “to whatever institution or interested person” the following information related to the administration of public funds:

- execution of budgets
- purchase orders and public contracts
- payment orders submitted to and issued by the National Treasury and other treasuries of the public administration
- financial and employment data concerning permanent and contracted staff, and those working for projects financed by multilateral organizations
- a list of retirees and pensioners of the armed forces and security forces
an account of the public debt, including terms, guarantees, interest costs, etc.
inventory of plant and equipment and financial investments
outstanding tax and customs obligations of Argentine companies and people
regulations governing the provision of public services, and the regulatory organizations themselves
all information necessary for the control of social expenditure by the community

It was the primary goal of the Cristal program to create a better informed citizenry and to exercise more effective control over their political representatives. While the content of the website is directed to all citizens, journalists are a particularly important audience for the site, as newspapers and television enable a much wider dissemination of its contents. The information of the Cristal site was organized around three thematic areas:

- “The State Within Reach of All”: explains how public monies are redistributed between the national government and provinces
- “Goals and Results”: gathers information on all national policies to evaluate their management and the manner in which public funds are assigned
- “Accountability of Representatives”: consolidates information related to the control of corruption, both in governmental and the non-governmental sectors
- The site is audited externally by Foro Transparencia, a body made up of 15 non-governmental organizations concerned with government transparency.

Cristal was launched in February 2000. It was then heavily advertised, promising content that it did not actually contain at that time. This generated false expectations and a loss of confidence on the part of the public. Website staff were supposed to respond to a user’s question within 24 hours. Most user comments were critical of the quality of information available, and many include suggestions for further improvements.

As a result of the negative feedback, Cristal was closed down subsequently and a new site opened at http://www.argentina.gov.ar, this time without much fanfare. This site had many of the features of Cristal with some innovative new modules. The experience of the portal is designed around the client, and whether they are citizens, businesses, foreigners or seek to conduct transactions (similar to the UK Government website). Within the citizen portal, users can interact with the system to get information around birth, childhood, youth, marriage, old age and death. Within the transactions module, transactions can be conducted as related to social benefits, business, health, work and employment, tourism/sports/recreation, documentation, education/culture/science/technology, justice and security, transport/infrastructure, and housing/family. There is also access via sector. Sectors available are Science and Technology, Economy and Finance, Social Policy, Public Services, Culture, Education, Health, Work, Sports, Justice, Security and Tourism. Finally there are sub-portals for Argentina (description of the culture, the country, history etc), a Government Portal, and a Province Portal. An innovative and useful feature that has been introduced is “How do I …..?” which allows for quick answers to simple and commonly asked questions, regardless of whether you are a citizen, tourist, or business.

Cristal was an initiative that was only partially successful and illustrates the impediments that e-government applications face regarding transparency, and the need for governments to deliver what they promise. While it is too early to declare victory with the new version, it is certainly a step in the right direction as far as transparency is concerned.
**Mexico**

**Public/Private Collaboration**

The Mexican Government created the program PROSOFT to promote growth and create jobs in the IT/ITES sector through 7 initiatives, and the PROSOFT Fund to provide resources to the IT Industry, and as of December 2006, provided around US$70 million for 580 projects including company certification, staff training, technical assistance and equipment procurement (Mexico Information Technology Industry Development 2008).

The most prominent initiatives led by the PROSOFT Program are:

a) Mexico IT. This is an international branding strategy aimed mainly at the United States market, presenting the main benefits that Mexico presents for their offshoring operations. The campaign is closely coordinated with the industry, and PROSOFT’s involvement is expected to reduce over time

b) MoPROSOFT. The MoPROSOFT (Model for Processes in the Software Industry) standard for software companies has been developed by the PROSOFT Program in coordination with the Software Engineering Institute at Carnegie Mellon University. The standard was created to give an alternative for small and medium companies and has been praised internationally.

c) PROSOFT Fund. The PROSOFT Fund was created in 2004 to support projects which promote the creation, development, consolidation, feasibility, productivity, competitiveness and sustainability of the companies in the IT sector, and to foster their use in the economic sectors of the country.

The program has produced impressive results. Between 2002 and 2006, the workforce in the IT/ITES industry has increased by 45%. 121 universities have linked with the program. Mexico currently ranks first worldwide in number of PSP certified human resources. During 2006, the IT sector grew 14%, almost three times the Mexican economy, and is expected to increase in the following years. In many respects, the success of the program is based on the bottom-up approach under which it works, with a responsive leadership that has always incorporated inputs and feedback from state government and the industry. This is a good example of e-government implementation using public-private partnerships.

**Conclusions**

In this paper, we talked about the hype behind e-government, and about ICTs in general. The anticipation and optimism behind e-government in the beginning was immense and expectations were sky high. Over time, a more balanced view emerged and although e-government continued to be a growth area for the public sector (as well as the private sector), the enthusiasm was tempered by caution. There were example of successful e-government projects that made a real difference, such as the E-government implementation in Singapore and its public sector services built around the “Vision of an Intelligent Island”.

The number of failures was higher than the number of successes. We believe that one of the reasons for this failure was a conceptual gap about the nature of e-government. E-government was viewed as the use of information technology in government, with Government to Government (G2G), Government to Business (G2B), and Government to Citizens (G2C) as its main components. This failed to express the myriad aspects of governance, and limited the definition of e-government to use of ICTs in government.
This conceptual shortfall dictated that the e-government work that practitioners engaged in, focused on technology to the exclusion of other aspects of government.
To address this issue, in this paper, we took a step back and looked at the concept of governance and what it means. Next we discussed the evolution of the concept of governance, while acknowledging that the terminology and concepts have varied quite a bit over the years so we are looking at roughly comparable concepts over time.

We showed how the evolution of e-government has followed a path similar to that of governance and discussed this evolution, ending in the present. We observed that in the last stages, the evolution of e-government has not kept up with the modern concept of democratic governance, and to address this problem, proposed a new, expanded definition of e-government.

Finally we shared some e-government examples in Latin American countries that fit in with this definition, including aspects such as social inclusion that are typically not paid much attention under most current e-government approaches. In this paper we have not addressed the issue of how to implement some of the recommendations that we make. For the future, we believe that more research is needed on pragmatic ways to make e-government implementation more balanced and complete, while taking into account all the features of e-government that we have expounded on above.

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Biography

Tanya Gupta works in the Public Sector Group of the World Bank’s Latin American Regional Department (LCSPS). She has ten years of experience in the World Bank in the Latin American and South Asian regions, and three years in academia. She has worked in e-government, trade facilitation, decentralization, civil service reform, and actionable governance indicators. She has published in many conferences; (including a World Wide Web Conference).She has an MBA (Finance) and an undergraduate degree in Economics.
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Table 1: Models of Governance

<table>
<thead>
<tr>
<th>Models of Governance</th>
<th>Description</th>
<th>Governance Features</th>
<th>E-Government</th>
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<tbody>
<tr>
<td>Weberian models of the State and the Bureaucracy</td>
<td>This view of the state and the bureaucracy had a somewhat paternalistic view of governance, which as per the Latin meaning of govern had a focus on “rowing” the boat, rather than “steering the boat”.</td>
<td>The governance features under this model can be summarized as administration within a rational, legalistic, hierarchical and centralized framework, operating in a closed framework with minimal participation of the citizens in bureaucratic policy making. Services are delivered directly to the public through purely public sector channels.</td>
<td>Use of systems theory in design of computers systems in the Public Sector</td>
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<td>Supermarket model of the state</td>
<td>In this model, the role of the government as service provider was assumed to the most important role, with an emphasis on efficiency, effectiveness and quality. Citizens are viewed as clients with the government playing the role of the service provider</td>
<td>The governance features in the supermarket state relate mostly to the quality of services provided by the government, with an emphasis on efficiency, effectiveness and quality to the possible exclusion of other factors (whereas the centralized state focuses on procedures, controls and hierarchy at the possible cost of the needs of the citizen).</td>
<td>Focus on service delivery.</td>
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<td>New Public Management</td>
<td>New Public Management” refers to “a cluster of ideas and practices (including reinvention and neo-managerialism) that seek, at their core, to use private-sector and business approaches in the public sector”</td>
<td>The features of NPM can be seen as somewhat contradictory to each other, with regard to the combination of economic theory and the managerial school. The economic theory part of NPM focuses on public choice, principal agent theory, and the importance of public choice. The managerial school emphasizes the importance of management principles in bureaucracy. The contractual elements of the former would incentivize centralization, whereas the latter would encourage decentralization. With respect to governance, this model emphasizes public choice, the separation of policy making and policy implementation, and the use of market mechanisms to address public sector problems.</td>
<td>Focus on automation of manual processes (efficiency), automation of performance measurement (accountability and information sharing), focus on information needs at municipal level (decentralization) and relationship between the public sector, private sector and citizens with (“marketization” and strengthening the use of market forces), and service delivery.</td>
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<td>Global Governance</td>
<td>Global governance related to governance issues created by the fact that new forms of authority are emerging through global and regional policy processes that coexist alongside nation-state processes. Economic globalization and regional integration are changing the</td>
<td>The features of global governance relate to the governance issues created by the ubiquity of spontaneous, amorphous, transnational organizations, often traditional institution features, with network effects embedded in many governance issues. This creates the problems associated with lack of formal coordination</td>
<td>Minimal focus at present</td>
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</table>
concept of governance and forcing the need for international institutional cooperation. and policy making mechanisms, the challenge of coping with a dynamic and changing environment, and dealing transnationally with fast propagating problems and spillovers in a coherent manner.

Viral Governance of Networks

Viral governance, a part of global governance, highlights the fact that governance issues are being created by the increasing ubiquity of networks, and the corresponding impact. The features of viral governance, which can be seen as a part of global governance, focus on the governance issues created by the ubiquity of networks and the transmission of both benefits and problems throughout networks.

Democratic Governance

Democratic governance, in addition to the other aspects of governance emphasizes the concern for citizenship and democracy. The features of democratic governance are an emphasis on citizenship and democracy. This is in addition to the other characteristics of good governance.

Government 2.0 in its infancy

Voting systems exist, but attention minimal

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**Table 2: Features of the “new e-government” in action**

<table>
<thead>
<tr>
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