Electronic Government (E-Government) and Development
Does the Digital Divide Contribute to the Governance Divide?

1 Introduction

In recent years, the strategic, co-ordinated use of information and communication technologies (ICT) in public administration and political decision making – commonly referred to as electronic government – has attracted ever more attention. Today, the majority of OECD members and a growing number of developing countries have formulated national e-government strategies. Governments and international organisations are spending considerable amounts of money to enhance public sector ICT capabilities. Every day, new technological solutions for public policy and administration enter the markets. E-government has become fashionable: The term itself is used as a cipher for modern, efficient, transparent, participatory, and customer-oriented government.

Still, different opinions exist with respect to the outcomes that can be expected from e-government. Some experts believe that e-government is going to revolutionise public sectors and political processes world-wide. Using the new technologies, developing countries will have a chance to “leapfrog” towards good governance. New information and communication channels will strengthen civil societies even under authoritarian rule. Other analysts, however, are less optimistic. They see e-government as a set of technological instruments which may be applied in a variety of institutional settings, not always promoting good governance. The sceptics point to the poor reliability of new technologies, the possibility of misuse by public and private actors, the resistance to change in public institutions, the barriers to access for large sectors of the population, and the failure of many e-government initiatives in meeting with their goals.

To be sure, in order to make proper use of the new technologies, technological feasibility is not the only, and many times not even the most important, factor. Reformers have to take into account the often limited ability and willingness of public institutions to cooperate with each other. They must be aware of the incentive structure which derives from existing rules and organisational structures and which may undermine change. They have to cope with the problem of limited access to the new technologies for large parts of civil society. Given all these factors, it becomes quite clear that there is no “easy” way to good governance by means of ICT.

In this paper we maintain, however, that e-government is not neutral in terms of governance. It connects better to result- and customer-oriented public management than to traditional bureaucratic administration. Also, it allows for new forms and levels of political participation. Although it would be unrealistic to expect general leapfrogging of Third World governments due to e-government, there may be substantial changes towards good governance, both in terms of administrative capacity and democratic governance. For these changes to occur, the

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1 See e.g. Hammond (2001); Mowlana (2001).
2 See for example Heeks (2001); Norris (2000).
use of the new technologies has to be incorporated into broader projects of state reform. Pressure from the outside is helpful, but usually an internal modernisation focus is needed in order for e-government to work.

2 E-government and good governance

The debate on e-government and the debate on good governance connect well to each other because both concepts share the same objectives, even though their respective focus may be different. Administrative efficiency, quality of public services and democratic participation are core principles of both, e-government and good governance. E-government, however, offers the chance to overcome a certain particularistic focus prevailing in many good governance initiatives, in favour of a more integral understanding of state reform.

As it is well known, the concept of good governance was introduced by the World Bank in the late 1980’s in order to describe the desiderata of transparent and efficient public regulation and service delivery for market oriented growth. Based on insights from the New Institutional Economics, good governance served as an orientation for state reforms in the process of structural adjustment. At a later stage, the concept acquired new notions, such as the strengthening of civil society organisations. This broadening of focus was strongly influenced by the work of the United Nations Development Programme (UNDP).

The World Bank approach distinguishes four key dimensions of governance: (1) public sector management, (2) accountability, (3) rule of law and (4) transparency. Today, World Bank activities focus mainly on judiciary and administrative reform, the regulation and promotion of market competition, decentralisation, anti-corruption measures, and fiscal reform.

Critics claim that the Bank concentrates on the internal functioning of some public institutions, leaving aside other (public and non-public) actors and institutions. Also, it is argued that important inhibiting factors to development lie within the core political institutions – a field which does not fall under World Bank mandate. Further, some authors affirm that distrust of statal regulation has led the Bank to overestimate civil aspects of accountability while neglecting the strengthening of regulatory powers and internal control. To sum up critical remarks, instead of a systemic understanding of governance, World Bank activities would reflect a limited, instrumental view of institutional reform in the light of economic growth and market integration. The World Bank has reacted to this partly by broadening its focus and assuming a more political position, partly by sharpening its profile and referring to other institutions as complementary actors in the promotion of good governance.

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4 See UNDP (1995); UNDP (1997).
6 In its latest World Development Report, for instance, the Bank acknowledges the importance of political power: „Good governance requires the power to carry out policies and to develop institutions that may be unpopular among some – or even a majority – of the population“. See World Bank (2001), p. 96. Also,
For reasons of either limited mandate or limited expertise, we do not envision the Bank becoming involved in some other areas of public sector reform, such as (i) police reform, (ii) criminal justice systems (including prosecutorial and prison reform), (iii) general parliamentary processes, or (iv) political governance (including election processes or the structure and financing of political parties). Many of our partners, including UNDP, bilateral donors, and NGOs, have clearer mandates or a likely comparative advantage in these areas of work".

Since the mid-1990s, UNDP has assumed a somewhat different approach to good governance, stressing the importance of participatory political processes and articulate civil society organisations. In UNDP’s perspective, there are four different dimensions of governance: (1) Economic governance refers to a competitive and non-discriminatory market order. (2) Political governance refers to participatory, democratic, legitimate, pluralist and accessible political institutions. (3) Administrative governance refers to an efficient, transparent, independent and accountable public administration. (4) Systemic governance refers to the existence of societal institutions that protect cultural and religious values, provide for freedom and security, and promote equal opportunities to exercise personal capabilities.

Through a newly created Thematic Trust Fund on Democratic Governance, UNPD is currently engaged, among other activities, in reforms of parliaments and electoral systems, the promotion of basic human rights, access to the judicial system, decentralisation and local governance. Thus, it covers some aspects not considered by the World Bank, although on a much smaller scale.

In spite of different project portfolios and diverging views on some aspects of state-society relations, though, both institutions share a general vision of good governance which embraces democratic and legitimate political institutions, efficient and accountable public administrations, rule of law and the guarantee of basic human rights, as well as an effective public regulation of markets. Other multinational actors such as the Organisation for Economic Co-operation and Development (OECD) have taken similar positions.

However, international donors (as well as civil society organisations in Third World Countries) have had difficulties in implementing that vision in the face of governments, which in most cases agree in modernising particular institutions, but are less enthusiastic in putting into question the traditional, elitist functioning of the political process itself. The prevailing implementation pattern has thus been one of punctual reforms, all too often with only limited impact on the general governance of the partner state. This has led some authors to announce the “demise” of the good governance concept.

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At the same time, international actors have increasingly turned to **e-government** as a means to promote good governance. Again, the World Bank has taken up a leading role with the creation in 1995 of the Information for Development Programme (INFODEV). Also, it has opened a specific e-government web site with case studies, toolkits, etc. Many other institutions have been following suit. For instance, the United Nations have called into life the United Nations Online Network in Public Administration and Finance (UNPAN), whose objectives are „to promote the sharing of knowledge, experiences and best practices throughout the world in sound public policies, effective public administration and efficient civil services, through capacity-building and cooperation among Member States, with emphasis on south-south cooperation“.

The reason of e-government being introduced as a vehicle for the promotion of good governance lies in its dualistic approach to state modernisation: it combines an internal focus on administrative reform with an external focus on state – citizen (or state – customer) relations. In the context of rapidly changing roles for public and private actors in the development process, e-government is seen as an instrument to simultaneously

- increase the efficiency of public administration,
- improve public service delivery, and
- strengthen the openness and transparency of political processes.

**Efficiency**

One of the most important arguments in favour of e-government reform is that it raises the **internal** or **production efficiency** of public institutions, thus saving taxpayer’s money. There are, in theory, two basic ways to achieve this. One is, to raise labour productivity and cut employment by means of the automation of administrative procedures and the simplification of processes. The other one is, to lower the costs of public procurement by means of better information on prices, promotion of market competition and more transparent and market-friendly purchasing procedures.

The use of ICT as a device to raise labour productivity has different dimensions. The first dimension is the creation of networks and the automation and simplification of procedures **within** a given institution. The city of Hamburg, for instance, is currently working on the digitalisation of document archives in eight of its offices. This may be regarded a first step towards electronic workflow management, since it offers substantial efficiency gains without requiring profound changes of internal procedures. As a matter of fact, e-government reforms may very well start at the periphery of administrative structures and procedures. In these cases, however, it is crucial to make sure that reforms do not stop there, but are subse-

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12 See http://www.infodev.org (15.7.2002).
15 Internal studies have shown that public employees in the City of Hamburg dedicate up to 5 percent of their workload to the search of documents.
quently broadened to cover core activities. Automation is especially useful in the case of iterative and mass proceedings, such as registration, filing or reporting.

A second dimension of e-government with respect to labour productivity consists in ICT-based co-operation between administrative entities. A crucial advantage of e-government lies in the intensification of information and communication flows, many times cutting through traditional hierarchies and administrative routines. The establishment of local one-stop-shops, for instance, usually requires a certain degree of co-operation between different public agencies. Again, reforms may begin in areas outside the core competencies of participating institutions. In the Brazilian state of Bahia, for example, the creation of integrated public service centres (Serviços de Atendimento ao Cidadão – SAC) with up to 27 institutions offering up to 550 services, has led to an incipient co-operation with respect to personnel and the delivery of services such as the emission of personal ID’s. Although each agency maintains its own ICT infrastructure and procedural routines, all work stations are connected to the SAC network. This allows the SAC administration to control the flow of clients, the duration of procedures, the time citizens have to wait until they are attended and even the personal performance of each single employee. In case of necessity, personnel may be shifted from one agency to another.16

Co-operation between different public institutions depends increasingly on the interoperability of ICT structures, i.e. the ability of computer systems to receive, read and process data from other systems. As it is well known, this is not always the case. Quite to the contrary, in the past public institutions have usually acquired ICT without caring too much about networking and co-operation capabilities. As an example, German municipalities use some 20 different solutions for their civil registry. Citizens who move from one place to another are obliged to notify the city they leave and register again in the city they are moving to, usually without being able to fill in the respective forms online. In order to make registering by Internet possible and to simplify the whole procedure, common standards and interfaces have to be developed so that forms can be signed and data transferred online. Also, legislation has to be changed, something Germany has done in March 2002. Still, there is a long way to go until citizens will be able to register online in a single, user-friendly procedure.

As a general trend, ICT modernisation decisions cannot be made any more by each particular institution in an isolated way. Local governments and public agencies have to respond to increasing co-operation and networking necessities by situating themselves in a organisational framework focussed on the integral delivery of services. National governments have to regulate markets and adapt legislation in order to set standards and achieve interoperability without blocking technological innovation and market competition. Especially for Least Developed Countries (LDC), this is a rather demanding task which may require external assistance. However, if governments fail to do so, internal efficiency gains within given institutions may be offset by overall efficiency losses due to the inadequacy of technical solutions.

But even taking into account the need to co-ordinate individual modernisation measures with the institutional environment, efficiency gains due to e-government may turn out to be small or in some areas even null. This is due to the fact that considerable investments have to be

16 These observations are based on a field visit to Brazil from July 15 to 30. See also http://www.sac.ba.gov.br.
made up front, especially in cases where basic infrastructure is lacking. Further, in many fields of public administration, pre-existing routines have to be maintained, in order to provide services for those who do not have access to the new technologies. Thus, public agencies are obliged to offer multiple access channels. Finally, new technologies usually demand increased investment in maintenance, human resource formation etc. Given all these factors, it would be naïve to assume that e-government will always lead to cost saving and increased efficiency. Careful cost-benefit analysis *ex ante* seems to be indispensable in order to avoid unpleasant surprises.

Another tool to enhance public sector efficiency consists in lowering the costs of public purchases of goods and services. As a matter of fact, **e-procurement** has rapidly become a favourite of reform-oriented (and resource-strained) governments world-wide. This is especially true with respect to the procurement of standardised goods and services through reverse auctions and electronic marketplaces, whereas electronic bidding for public construction works seems to advance at a slower pace. Since public works tend to be an important area where corruption and malversation of public funds take place, governments should be encouraged to make progress in this field, too. As of January 2002, the European Union requires member states to create conditions and allow for electronic bidding in public tendering.

Although there has been little systematic evaluation of e-procurement so far, anecdotal knowledge indicates a clear trend towards higher transparency and market competition, and considerable savings for public budgets. The Brazilian Government, for instance, has created an e-procurement structure called “Comprasnet”, based on reverse auctions. It expects savings of around 20 %, or more than 150 Mio. US$ per year, once the system is fully operating. This seems to be a fairly realistic estimate. The state of Bahia, which has adopted the federal system with minor changes, has achieved average savings of 24 % between August 2001 (beginning of operations) and June 2002. Additional efficiency gains both for the public and the private sector probably arise from the simplification and the speeding up of procedures, the crossing of data between different public registers and the simplification of budget planning and resource allocation. Those efficiency gains, however, have not been measured yet, nor does the Brazilian government plan to measure them in the future.

The creation of and access to electronic registers of providers of goods and services is another means to savings in public procurement. In 1995, the government of the Brazilian state of São Paulo built up a register of outsourced services (*serviços terceirizados*), realising for the first time that it had contracted 6,000 providers covering 530 types of services. The higher transparency obtained through that register and the resulting re-negotiation of contracts has helped to lower expenditure for outsourced services by 28 % between January 1995 and July 2001, down to around 50 Mio. US$ per month.

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18 Prices obtained through reverse online auctions compared to prices paid before. Interview with Phedro Pimentel dos Santos Neto, Government of the State of Bahia, June 20, 2002. It should be kept in mind, however, that the maximum amount for purchases made through online auctions so far has been 5,600 Reais (around 2,000 US$ at the current exchange rate).

19 Interview with Roberto Agune, Government of the State of São Paulo, June 18, 2002.
Quality of Public Service Delivery

Raising internal efficiency may be an important reason for public institutions to embark on e-government, but it is surely not the only one. Many times, ICT is employed primarily in order to improve service delivery vis-à-vis citizens or the private sector, in an attempt to strengthen the **allocative efficiency** of public administration and statal regulation. Allocative efficiency “measures how well service or infrastructure bundles match consumer preferences”. This means that the total, not only the public institution’s, allocation of factors has to be taken into account. If a personal ID can be issued within one hour on the basis of ICT solutions whereas it took 30 days before reform, requiring citizens to queue up for two days in different public agencies, the allocative efficiency may be considerably higher even if the state spends more on the delivery of that specific service. In this context e-government relates to **New Public Management** (NPM) approaches which put the **outcomes** of administrative action in the centre of quality assessment.

There is no doubt that e-government is gaining strength in the relation between state, citizens and the private sector. In a rapidly growing number of cases, the use of ICT leads to considerable improvements in public service delivery. In the majority of countries, however, it seems that these improvements still occur in a fragmented way and not as an all-encompassing tendency. Also, the use of ICT may strengthen public competencies in fields where civil rights and personal freedom are affected, such as the gathering and processing of personal data. Finally, reforms may be accompanied by a short- or middle-term deterioration of public service delivery, since innovations do not always work well right from the start, and new routines have to be developed, often alongside with existing ones.

Changes in public service delivery can be distinguished according to areas of the “government value chain” covered by them: ICT support public actors

- in gathering, bundling and providing **information**;
- in interacting with private actors; and
- in reorganising the **transaction** of public procedures.

**Information**: Being able to raise information is a basic function of public (and private) decision making. Building networks, crossing data from different sources and gathering data from the Internet enhances the state’s information capabilities. New software solutions facilitate the analysis of large quantities of information (“data mining”), thus helping to generate knowledge from data. However, the public interest in gathering information stands against the citizens’ interest in maintaining their private sphere and being protected from the abuse of authority. The balance between both interests has to be constantly redefined, due to the rapid

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21 See Minogue (2001); Heeks / Mundy (2001) for a rather critical discussion of the new public management approach and the use of ICT in this context. Both articles, though, are based on an understanding of NPM which emphasises the strengthening of market competition, the downsizing of public employment, the introduction of business administration tools and the privatisation of service delivery. These are certainly recurrent features of public sector reform, but the core of NPM in my point of view is the fundamental change from bureaucratic input steering to management by results. See Naschold (1996) for a more balanced discussion.
change of political and technological conditions. Societies with open political processes and a functioning judiciary are presumably better equipped to meet that challenge.

E-government also helps to improve the *bundling and provision* of information. A fundamental innovation in state-citizen relations is the creation of (multiple or joint) websites and Internet portals, where information can be obtained on service portfolios, opening hours, important activities, links to other organisations etc. In some cases, users have the possibility to register and configure the website according to their interests. Many governments offer central government portals with links to a broad range of institutions and services.

**Interaction:** The provision of information can be seen as the first step to e-government. As a second step, new ICT solutions help to improve communication between citizens or private enterprises and the state. For citizens, being able to file requested documents online or download forms from the Internet is a real advantage. Public institutions, too, benefit from ICT-based interaction, although the relation between internal efficiency gains and increased spending on service delivery may not always be positive, as mentioned above.

Governments should keep in mind, however, that so far only a small percentage of world population has access to the Internet. Therefore, e-government reforms should not be limited to interaction through the Internet, but instead procure multi-channeling: An administration that can be accessed by various ways (e-mail, Internet, call centres, one-stop service centres, etc.) is able to react more quickly and flexibly to consumer demands. Many municipalities and public agencies have begun to group services around so-called “life events”, such as marriage, birth, loss of documents or the registration of an enterprise. This reflects the fact that usually citizens and enterprises are not interested in who is responsible for what, but want their problems to be resolved quickly and cheaply.

**Transaction:** The third step to e-government consists in transacting administrative processes within one, the electronic, medium. For this to achieve, it is crucial to develop solid working procedures between front offices, serving as interfaces between public administration and clients, and back offices, where the actual processing is taking place. ICT-based transaction is especially interesting for enterprises, since their relations to public administration are usually more frequent than those of citizens. An area where the private interest in smooth and user-friendly administration and the public interest in efficiency tend to meet rather well is tax administration. The Treasury of the state of Bahia in Brazil, for instance, offers the whole range of its tax services through online transactions. Since not all of its clients dispose of private

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22 For the distinction between multiple websites, joint websites and Internet portals, see Metropolis (2002), p. 10.

23 The state of California, for example, offers this service to users who may register as resident, business person, media / press, state employee, student, or tourist. See http://www.state.ca.us.

24 According to the International Telecommunication Union (ITU), „while the gap between developed and developing countries in telephone lines is closing, a divide is opening up in the availability and quality of Internet access“. Only 0.6 % of Africans and 0.5 % of Indians have used the Internet in 2000. In Brazil, the percentage of Internet users was 2.9 %, in Thailand 3.8 %, in Chile 16.6 %. At the upper end of the spectre, countries such as the USA (34.7 %), Norway (49.1 %) and the Republic of Corea (40.3 %) are already using the Internet as a mass communication device. See www.itu.int/newsroom/press_releases/2002/05.html (22.3.2002).
Internet access, the state provides public access points (*pontos de autoatendimento*). In 2001, 1.1 Million requests were transacted online, whereas 576.000 were attended through traditional channels.²⁵

**Openness and transparency of political processes**

Many of those who participate in the debate on e-government and *e-governance*²⁶ are convinced that the new ICT will lead to a fundamental change in the relation between state and citizens, with a concurring redefinition of their respective roles. These expectations are based on the observation that the intensification of information and communication flows that characterises e-government strengthens the capacity of public institutions as well as the transparency and openness of political processes. If this is taken as a general trend, states will be able to improve their governance significantly through e-government, while at the same time civil society will be better equipped to articulate its interests and hold public agents accountable.

As a matter of fact, the new technologies offer new sources of relevant knowledge and facilitate political communication. New forms of interest articulation and new arenas of political debate arise. In general, however, limited access to the new media constitutes a major challenge to the paradigm of e-democracy. Given the skewed distribution of skills and resources, opening up access to political decision making through ICT tends to favour the better off and the better organised, to the detriment of the underprivileged. Because of this, ICT-based direct democracy should not be seen as an alternative to representative democracy but rather as a means to improve interest articulation and decision making. For instance, electronic voting may be used to promote political participation. In the UK, various forms of e-voting have been tested during elections at the local level in May 2002, although with mixed results. In Brazil, electronic poll site voting is used to improve the transparency of the voting process. Also, in countries with voter registers, electronic registering can help to lower the barriers to voting, making it more comfortable to register.

Progress in democratisation through ICT will only occur, however, if the poorer sectors of society are taken into account properly. For the majority of countries world-wide, individual access through personal home computers will not be the typical way for citizens to connect to the Internet in the foreseeable future. Therefore, governments should encourage the instalment of public access points (such as *telecentres*)²⁷ and training facilities. In many cases, this can be done through private or third sector initiative.

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²⁵ Interview with André Cordeiro, Government of the State of Bahia, June 20, 2002.
²⁶ If governance is „the sum of the many ways individuals and institutions, public and private, manage their common affairs“ (this is the definition of the Commission on Global Governance, as cited by Weiss (2000), p. 796), then e-governance refers to the use of ICT in this context.
²⁷ For a discussion of telecentres, see Proenza / Bastidas / Montero (2001); Jensen (2001).
3 Conclusion

Many Third World regimes are characterised by the co-existence of traditional and modern patterns of government. Alongside democratic institutions and formally well defined systems of checks and balances, a set of (often informal) institutions, such as clientelism and corruption, exists which largely determines the social distribution of resources. These “hybrid regimes”\(^{28}\) may be able to achieve considerable progress in some aspects of political, economic or social development, but they often fail in putting that progress on a broader, sustainable basis. As a result, the overall picture is one of heterogeneous societies where modern and traditional patterns often contradict each other. The crucial question in the context of the present article is if e-government helps to overcome that situation of heterogeneity, allowing countries to leapfrog towards good governance and broad-based development.

This paper has shown that as an integral modernisation strategy, e-government may bring about interesting results if certain conditions are met: There has to be a group of reformers with considerable political power to get things started. Success stories are needed in order to broaden reforms to additional sectors. Public support is important to build up pressure for improved service delivery. Better services, in turn, will hardly be achieved without functioning internal administrative structures, so there has to be a clear focus on internal reform, too.

From a political perspective, though, many countries are badly prepared to engage in all-encompassing reform. Most importantly, prevailing legitimacy patterns operate against change: If political support hinges upon clientelistic relationships, the provision of jobs in public institutions tends to be crucial. As a result, public sectors are overstaffed, but utterly underfunded in terms of equipment and infrastructure. In these cases, political leaders will not necessarily be interested in raising administrative efficiency by cutting employment – as can be seen today, for example, at the provincial level in Argentina. Also, if corruption is taken as an instrument to secure political support of key groups, there will be pressure to block the introduction of e-procurement, or limit it to minor purchases. Finally, if political decisions are made at the margin of formal institutions, usually in small, elitist circles, there may be resistance to the opening up of the political process through e-democracy.

Although some advanced Third World countries will be able to close the gap to the industrialised countries in terms of governance, it can be supposed that, as a general trend, the new ICT will favour countries which already are in a better position, thus contributing to the global governance divide. So far, there is little evidence to support the thesis that introducing ICT in public administration triggers off modernisation processes towards results- and customer-oriented management. Rather, changes seem to occur the other way round: where governments embark on administrative modernisation, the formulation and implementation of e-government strategies serves as an additional factor to speed up changes. As a result, most governments would be ill advised to opt for the creation of “modernisation poles” and expect those poles to spread out automatically.

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\(^{28}\) See Karl (1995) for an introduction to the concept of hybrid regimes.
References


