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Electronic Government (E-Government) and Development

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E-government denotes the strategic, co-ordinated use of information and communication technologies (ICT) in public administration and political decision-making. The benefits it is expected to deliver are greater efficiency of the institutions concerned, improvements in public services, and political participation and transparency. But fast results can only be expected where a sound institutional base and good technical and infrastructural facilities already exist. In the foreseeable future, the introduction of e-government will mainly be confined to the industrialised and more advanced developing countries. However, potential uses are also opening up for the poorer countries. In many cases, the obstacles to reform are not so much financial and infrastructural difficulties as political blockades. Development cooperation can use e-government as a means of supporting partner countries in devising and implementing political and administrative reforms and in improving market-oriented frameworks. Beyond the immediate benefits of the new technologies, e-government should be taken as an instrument to promote good governance and to strengthen reform-oriented actors in politics and civil society.

Le gouvernement électronique désigne l'utilisation stratégique et coordonnée de technologies d'information et de communication (TIC) dans l'administration publique et dans les centres de décisions politiques. Les bénéfices escomptés sont une plus grande efficacité des institutions concernées, l'amélioration des services publics, la participation politique et la transparence. Cependant, des résultats rapides ne sont à prévoir que s'il existe déjà une solide base institutionnelle et de bonnes infrastructures et facilités techniques. Dans un avenir proche, l'introduction du gouvernement électronique se limitera principalement aux pays industrialisés et aux pays en

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développement les plus avancés. Malgré tout, les pays pauvres pourront peut-être en profiter. Dans de nombreux cas, les obstacles aux réformes ne sont pas tant dus aux difficultés financières et au manque d'infrastructures qu'aux blocages politiques. La coopération au développement peut faire usage du gouvernement électronique pour aider des pays partenaires à réaliser des réformes politiques et administratives et à améliorer les bases d'une économie orientée vers le marché. Au-delà des bénéfices immédiats dus aux nouvelles technologies, le gouvernement électronique peut être considéré comme un instrument capable de promouvoir la gestion publique et de renforcer la position des acteurs politiques ou civils soutenant les réformes.

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 increasing 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 market. In other words, e-government has become fashionable: the term itself is often used as a synonym for modern, efficient, transparent, participatory and customer-oriented government.

None the less, opinions vary 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 worldwide [*see for example Hammond, 2001; Mowlana, 2001*]. Using the new technologies, developing countries will have a chance to 'leapfrog' their way 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, but will not always end up 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 to meet their goals [*see for example Heeks, 2001; Norris, 2000*].

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 co-operate 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 it is argued that e-government is not neutral in terms of governance. It connects better with result- and customer-oriented public management than with traditional forms of bureaucratic administration. It also allows for new forms and levels of political participation. Although it would be unrealistic to expect a quantum leap in the quality of administration in developing countries because of e-government, there may be a substantial payoff in terms of improved administrative capacity and democratic governance. For these changes to occur, however, the use of the new technologies has to be incorporated into broader projects of state reform. Pressure from the outside may help, but usually an internal modernisation focus is needed in order for e-government to work.

E-GOVERNMENT AND GOOD GOVERNANCE

The debates on e-government and good governance connect well with each other because both concepts share the same objectives, even though their respective focus may be different. Administrative efficiency, the quality of public services and democratic participation are core principles of both. 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.

In its broadest definition, 'governance' refers to 'the sum of the many ways individuals and institutions, public and private, manage their common affairs'.¹ The term is used in different spatial (e.g. local, global governance) and functional contexts (e.g. corporate, Internet governance). The concept of *good governance* was introduced by the World Bank in the late 1980s in order to describe the requirements, mostly at the national level, of transparent and efficient public regulation and service delivery for market-oriented growth [see *World Bank, 1992*]. Based on insights from the New Institutional Economics, good governance served as an orientation for state reforms and development co-operation in the process of structural adjustment.

From the outset, the World Bank opted for a broad understanding of the term 'governance', distinguishing four key dimensions: (1) public sector management, (2) accountability, (3) rule of law and (4) transparency. However, in promoting *good governance*, the Bank has limited itself to a number of issues which would

be covered by its mandate, thus leaving out, for instance, reforms of core political institutions such as parliaments or electoral regimes. Today, World Bank activities focus mainly on judicial and administrative reform, the regulation and promotion of market competition, decentralisation, anti-corruption measures, and fiscal reform.

Since the mid 1990s, the United Nations Development Programme (UNDP) has assumed a somewhat different approach to good governance, stressing the importance of participatory political processes and articulate civil society organisations, and emphasising the role of the state in the promotion of *human* rather than merely economic development [see UNDP, 1995, 1997]. From the UNDP's perspective, there are seven key features of 'sound' governance: (1) political legitimacy and accountability, (2) freedom of association and participation, (3) a fair and reliable judicial system, (4) bureaucratic accountability, (5) freedom of information and expression, (6) effective and efficient public sector management and (7) co-operation with civil society organisations [see UNDP, 1995: 22].

In a later publication, UNDP proceeded to group this list of features around four different dimensions of governance:

- *Economic* governance refers to a competitive and non-discriminatory market order which is conducive to economic growth.
- *Political* governance refers to participatory, democratic, legitimate, pluralist and accessible political institutions.
- *Administrative* governance refers to an efficient, transparent, independent and accountable public administration.
- *Systemic* governance refers to societal institutions that protect cultural and religious values, help to provide for freedom and security, and promote equal opportunities to exercise personal capabilities.

While the first three dimensions constitute 'the formal institutional and organizational structure of authoritative decision-making in the modern state' [see UNDP, 1997: 10–41, here p. 10], the fourth dimension highlights the embeddedness of the state in a wider context of social order.

Although the World Bank and UNDP have different project portfolios and diverging views on some aspects of state-society relations, it can be argued that the World Bank's understanding of good governance constitutes a basic vision shared by both organisations. This vision embraces democratic and legitimate political institutions, efficient and accountable public administrations, the rule of law and the guarantee of human rights, as well as an effective public regulation of markets. Other multinational actors, such as the Organization for Economic Co-operation and Development (OECD), have taken on similar positions [see OECD, 1995, 2001].

However, putting the concept into practice has been difficult. International donors as well as civil society organisations in developing countries have had trouble in implementing that vision in the face of governments which in most cases agree with the broad objective of modernizing particular institutions, but are less enthusiastic in questioning the traditional, elitist functioning of the political process itself. The prevailing implementation pattern has thus relied on one-off reforms, all too often with only limited impact on the general governance of the partner state. This has led some authors to announce, maybe a little prematurely, the 'demise' of the good governance concept [*see Doornbos, 2001*].

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).² Also, it has opened a specific e-government website with case studies, toolkits, etc.³ Many other institutions have been following suit. For instance, the United Nations has founded 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'.⁴

The reason for 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 taxpayers' 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 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. As noted below, however, these savings may be offset by costs that narrow down or indeed wholly obliterate such efficiency gains.

Labour productivity can be raised by means of reforms *within* individual agencies or administrative units. With an eye to efficiency, complete conversion to ICT-based and automated procedures makes real sense when the task involved is to process mass transactions. But even partial conversion, for example for purposes of registry or filing of data, can entail substantial improvements.

As an example, in 2001 the municipal administration of Rajshahi in Bangladesh successfully introduced electronic birth registration. The project, supported by UNICEF, included investments amounting to US\$20,000, with monthly operating costs of some US\$200. Today, data management and consultations take only a fraction of the time needed prior to conversion. Errors in transferring manually gathered data can now be avoided. The main winner has been the municipality's statistical agency, although the local health department also now has access to the data, which it uses to conduct children's immunisation programmes. Both registration and immunisation rates have been significantly improved in this way. Plans are now under discussion to use the Internet to make the data, currently only locally accessible, available to other authorities, a step that is expected to entail additional efficiency gains.

This example shows that reforms within individual administrations are often only a first step on the road to higher labour productivity through e-government. Complex multilevel systems place increasing demands on ICT-based co-operation *between* agencies. 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. Reforms may begin in areas outside the core competencies of participating institutions. In the Brazilian states of São Paulo and Bahia, for instance, the creation of integrated public service centres with up to 35 institutions offering up to 550 services in a number of spacious halls, has led to an incipient co-operation with respect to personnel and the delivery of services. Even though each agency maintains its own ICT infrastructure and procedural routines, all workstations are connected to the centre's network. This allows the administration to control the flow of customers, the duration of procedures, the average waiting time and even the performance of each single employee. If necessary, personnel may be shifted from one agency to another. In combination with other measures, this made it possible to increase labour productivity by up to 30 per cent in 2001.⁵

Co-operation between different public institutions depends increasingly on the *interoperability* of ICT structures, that is the ability of computer systems to receive, read and process data from other systems. As is well known, this is not always the case. Quite the contrary, in the past public institutions have usually acquired ICT without caring too much about networking and co-operation capabilities. As a case in point, 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 an organisational framework focused 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.

Another tool to enhance public sector efficiency consists in lowering the costs of public purchases of goods and services. Here there is a lot of public interest in transparency, efficiency, and competition. In fact, *e-procurement* has rapidly become a favourite of reform-oriented (and resource-restrained) governments worldwide. This is especially true with respect to the procurement of standardised goods and services through reverse auctions and electronic marketplaces.⁶ On the other hand, electronic bidding for public construction works seems to have advanced at a slower pace. Since public works tend to be an area where high levels of corruption and malversation of public funds take place, governments should be encouraged to make progress in this field too. Thus, as of January 2002, the European Union requires member states to create conditions for and allow for electronic bidding in public tendering.

Although there has been little systematic evaluation of e-procurement so far, anecdotal evidence indicates a clear trend towards greater transparency and market competition, giving rise to considerable potential 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 per cent, or more than US\$150 million per year⁷ 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 per cent between August 2001 (beginning of operations) and June 2002.⁸ 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 per cent between January 1995 and July 2001, down to around US\$50 million per month.⁹

But even taking into account the need to co-ordinate individual modernisation measures with the institutional environment, efficiency gains from e-government may turn out to be small or in some areas even non-existent. This is because e-government is often bound up with substantial initial and follow-up investments, particularly in cases where the infrastructure required is still largely lacking or deficient. In many cases it is necessary to provide traditional and new access channels side by side for longer periods of time. The organisational restructuring of administrations likewise entails costs. Additional expenditures accrue as a result of the need for continuous modernisation in the face of often short innovation cycles as well as due to the need for training and capacity building. In connection with e-government, however, cost-benefit analyses are seldom conducted in practice. On this point, developing countries should seize the opportunity to learn from the failures of the industrialised countries. On the other hand, it is important not to overlook the fact that on top of cost savings in the public sector there are also other compelling reasons to introduce e-government.

QUALITY OF PUBLIC SERVICE DELIVERY

Often ICT is employed primarily in order to improve service delivery for 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' [Campbell *et al.*, 1991: 6]. This means that the total, not only the public institution's, allocation of factors has to be taken into account. If ICT-based solutions make it possible to issue a personal ID in an hour's time, while prior to reform the same procedure took 30 days and required citizens to queue up for two days at different public agencies, allocative efficiency may well be regarded as considerably higher even if this should mean higher public-sector costs for delivery of the service. In this context, e-government relates to *New Public Management* (NPM) approaches,

which put the *outcomes* of administrative action at the centre of quality assessment.¹⁰

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 most countries, however, such successes still tend to be rather patchy or sporadic in nature and do not (yet) constitute an overall trend. Furthermore, innovations rarely function smoothly from the very start. They often call for incisive changes in administrative routines, leading, at least in the short run, to lower quality of service provision. And it is important here not to overlook the fact that the new media may strengthen government capabilities in fields that affect civic rights and personal liberties – in particular as far as the gathering and processing of personal data are concerned. Government interest in collecting information must contend here with the interest of citizens in safeguarding their private sphere and protecting themselves against any possible abuse of government competences. In many developing countries, the public is still insufficiently aware of this issue. Societies with open political processes and a functioning judiciary are presumably better equipped to meet that challenge.

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 *gather* information is a basic function of public (and private) decision-making. Building networks, crossing data from different sources and gathering data from the Internet enhance the state’s information capabilities. To cite an example, the southern Indian state of Kerala has launched a pilot project including five rural communities and aimed at electronically managing the provision of social services. It turned out that a number of beneficiaries were wrongfully receiving several pensions at once. Previously these abuses had eluded detection because different pension funds were unable to collate their data (or were prevented from doing so by the cost and effort involved). In this case, the use of ICT has made it possible to improve the focusing of social services – even in an environment marked by poverty and marginality.

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,¹¹ where around-the-clock 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.¹² Many governments offer central government portals with links to a broad range of institutions and services. Even highly specific information contents can be transported via the new media: for instance, the municipal administration of the city of Bucharest offers its citizens the possibility to monitor online the status of their applications for restitution of property confiscated between 1945 and 1989. During its first 70 days of operation the website was accessed a total of 200,000 times [*see Pislaru, 2002: 73*].

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 the world population has access to the Internet¹³. Thus, e-government reforms should not be limited to interaction through the Internet, but instead procure to provide multiple channels of access: 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.

Even under conditions of limited individual access to ICT, the new technologies may contribute to improve public administration. In the Brazilian state of Bahia, which is roughly the same size as France, customer orientation poses a particular challenge to public administration in rural regions. For this reason, in 1996 the state government equipped two trucks for use as mobile public service centres. Based on a fixed schedule, these vehicles travel to the municipalities and Indian communities located in remote areas of the state. The services provided include registration of births and the issue of personal IDs, certificates of good conduct, and employment papers. These documents are required to apply for social services, to seek work in the formal sector, etc. In addition, in 2000 the state government set up nine mobile health centres as a means of improving basic health care in remote regions of the state. The mobile centres use modems and mobile radio to access the appropriate state databases, in this way delivering services on a faster, more comprehensive, and more

target-group-oriented basis. Other Brazilian states have copied the model, even using boats in the country's northern regions.

Transaction

The third step to e-government consists in transacting administrative processes within one, the electronic, medium. For this to be achieved, it is crucial to develop solid working procedures between front desks, serving as interfaces between the administration and clients, and back offices, where the actual processing is taking place. ICT-based transactions are especially interesting for companies, since their relations with the public administration are usually more frequent than those of citizens. An area where private interests in smooth and user-friendly administration and the public interest in efficiency tend to overlap 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 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.¹⁴

OPENNESS AND TRANSPARENCY OF POLITICAL PROCESSES

Many of those who participate in the debate on e-government and *e-governance*¹⁵ 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 were 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. 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 worldwide, individual access through personal home computers will not be the typical way for citizens to connect to the Internet in the foreseeable future. In most developing countries, the use of ICTs in the political process should therefore not focus mainly on individual participation. ICTs are, however, very well suited to increasing the effectiveness of collective participation and strengthening organisations of disadvantaged population groups. To cite an example, observers noted that mobile telephones played an important role in the presidential elections in Kenya in December 2002, where they were used to monitor the election process and to publicise the results of vote counts. In a number of countries, public Internet access points (telecentres, kiosks, Internet cafés) [see Proenza *et al.*, 2001; Jensen, 2001] are already being used as nodal points of civic organisation and political debate. Therefore, governments should encourage the instalment of public access points and training facilities. In many cases, this can be done through private or third sector initiatives.

CONCLUSION: POINTS OF DEPARTURE FOR DEVELOPMENT CO-OPERATION

Like other modernisation processes, e-government reforms are unfolding in a process of give and take between what is technically feasible and what is socially desirable. This is above all a political issue, since even limited reforms may have far-reaching impacts on the internal procedures and external relations of public institutions, affecting the distribution of power and material resources. In addition to the continuing, powerful dynamics of technological progress, this clearly indicates that there can be no ready-made solution to the task of introducing e-government in developing countries. The donor community, too, has only begun to address this issue.

However, the *standards* for assessing such reforms are clear: seen in terms of development, e-government makes sense if it contributes, without undue costs, to reducing locational disadvantages in the way of economic development, improving the provision of – in particular – disadvantaged population groups with basic public goods, and fostering the public-interest orientation of government institutions. Today these goals are often discussed under the heading of good governance. E-government as a vehicle of modern paradigms of politics and administration can thus be integrated meaningfully into existing measures aimed at promoting democracy, public-sector reform, and economic

development. This is the case in particular when the new technologies are used to strengthen the hand of reform-oriented political forces in partner countries.

But it is important here not to overlook the risks involved related to incisive reforms in political and administrative structures. Before any steps are taken, the following points should be given adequate consideration.

- Introduction of new administrative models can lead to political distortions, political interests being, as they are, linked to existing traditional structures. It is for this reason essential not to lose sight of the need to 'market' political reforms both domestically and abroad and, in individual cases, to think about compensation for the losers of reform.
- Access to and linking of data sources may give rise to new centres of power and increase the capacity of the state to engage in authoritarian action. It is therefore important to strengthen data protection as well as internal and civil-society control mechanisms.
- Especially in cases in which e-government is implemented ad hoc, without appropriately conceived models and strategies, the question is often who will benefit in the end. In this case, the task of development co-operation (DC) is to strengthen the elements in the reform process that promote the interests of disadvantaged population groups.

As regards the *promotion of economic development*, it is important to bear in mind that many e-government applications are already available in existing markets, in particular solutions for use in processing mass transactions (taxes, foreign trade, licensing, etc.) and e-procurement platforms. DC should accord adequate attention to the existence of solutions offered by the private sector. Wherever modernisation efforts are linked with structural reforms in public administration, however, advisory support (possibly in co-operation with the private sector) may well prove to be a promising and realistic approach. Furthermore, e-government can be used in the framework of business promotion and locational policy as a means of lowering company transaction costs – for instance by providing relevant foreign-trade information online or by providing support for small companies in using the Internet to market their products.

As regards the *promotion of administrative reform*, DC should focus on using e-government to eliminate some of the central bottlenecks obstructing the promotion of good governance. These include legal security (an important precondition for the performance of electronic contracts), data protection and security, promotion of e-literacy and expert competence, and co-operative approaches to internal administrative modernisation, for example development of integrated public service centres or databases designed for interministerial use. Agencies with co-ordinative interface functions (e.g. tax authorities, statistics agencies) are particularly well suited as partners because modernisation

successes in these institutions are likely to lead to reforms in other institutions as well.

As regards to the *promotion of democratisation*, the central issues include, on the one hand, the collection and provision of information using networked databases, municipal or centralised national websites, and local content management tailored to the interests of target groups. On the other hand, it is important to promote access to the new media, placing emphasis on community-oriented structures such as public Internet access points.

Many partner countries have recognised the attractiveness of e-government and are requesting advisory support in this field. If DC sets itself the task of strengthening politics and public administration in the sense of good governance, it would therefore be well advised to give systematic consideration to the potentials and the risks of e-government. But looked at the other way around: if e-government is to be more than a 'loose accumulation' of technical solutions to isolated problems of government and administration, DC will have to provide a meaningful contribution to strengthening the capacity of partners in dealing with the new technologies and the models bound up with them. This calls for a sensitisation of DC actors and partners alike: the know-how available in the industrialised countries must be activated for DC, a task which also involves building development-specific know-how and integrating it in system-related advisory support.

Although some advanced Third World countries will be able to close the gap with 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.

NOTES

1. This is the definition of the Commission on Global Governance, as cited in Weiss [2000: 796].
2. See <http://www.infodev.org> (accessed 15 July 2002).
3. See <http://www.worldbank.org/publicsector/egov/> (accessed 15 July 2002).
4. See <http://www.unpan.org/discover.asp> (accessed 21 December 2001).
5. These observations are based on a field visit to Brazil from 15 to 30 June 2002. See also www.sac.ba.gov.br; www.poupatempo.sp.gov.br.
6. Auctions are called 'reverse' when the providers, and not the buyers, of goods or services compete with each other. Usually, only registered companies are eligible to bid, although the auction may be public. At the end of a pre-established time span (e.g., one hour), the lowest

offer gets the deal. At *electronic marketplaces*, procurement agencies can order goods and services directly from a company using an online catalogue. This procedure simplifies and speeds up delivery and payment. It requires limited-term framework contracts with a number of companies as a means of ensuring both performance and appropriate product quality.

7. Taking the current exchange rate of 2.80 Reais per US\$. See <http://www.comprasnet.gov.br>; Gomes Fernandes [2002].
8. Prices obtained through reverse online auctions compared to prices paid before. Interview with Phedro Pimentel dos Santos Neto, Government of the State of Bahia, 20 June 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 US\$2,000 at the current exchange rate), which means that only a minor part of public procurement is covered by the new system.
9. Interview with Roberto Agune, Government of the State of São Paulo, 18 June 2002.
10. See Minogue, [2001] and Heeks and Mundy [2001] for a rather critical discussion of the NPM 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 control to management by results. See Naschold [1996] for a more balanced discussion.
11. For the distinction between multiple websites, joint websites and Internet portals, see Metropolis [2002: 10].
12. The state of California, for example, offers this service to users who may register as a resident, business person, media/press, state employee, student, or tourist. See <http://www.state.ca.us>.
13. According to the International Telecommunication Union (ITU), 0.9% of Africans (excluding South Africa), 1.6% of Indians and 4.6% of Chinese have used the Internet in 2002. In Brazil, the percentage of Internet users was 8.2%, in Thailand 7.8%, and in Chile 23.7%. Although figures have risen sharply over the past few years, and available data may tend to underestimate collective forms of access, it should be clear that a vast majority of the global population will not be able to make proper use of the new technologies for years to come. Only at the upper end of the spectrum are countries such as the USA (55.1%), Sweden (57.3%) and the Republic of Korea (55.2%) already using the Internet as a mass communication device. See http://www.itu.int/ITU-D/ict/statistics/at_glance/Internet02.pdf (accessed 21 January 2004).
14. Interview with André Cordeiro, Government of the State of Bahia, 20 June 2002.
15. If governance is 'the sum of the many ways individuals and institutions, public and private, manage their common affairs', as cited above (see note 1), then e-governance refers to the use of ICT in this context.

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