Recommendations for meaningful and successful e-governance in India

Paper submitted to the Second Administrative Reforms Commission on 'Citizen Centric Governance'

May 2008

This document is made possible through a research support by the PAN ASIA programme of UNDP- APDIP and IDRC, Canada

Parminder Jeet Singh
IT for Change

Bangalore, India
### Table of Contents

**Part 1 - Context and Background of the Recommendations**

- What is e-governance? 3
- E-governance – The international scene 5
- The context of governance reforms in India 6
- Institutional frameworks for leading e-governance 9
- India’s e-governance institutional framework 13

**Part 2 - Recommendations**

- Recommendations 22
  1. Political assessment of the e-governance opportunity to reform Indian governance system – Developing the e-governance policy framework for India 22
  2. Connecting e-governance to India’s governance reform agenda 22
  3. Putting in place an appropriate institutional framework for leading e-governance in India 23
  4. Preparing a roadmap for governance in India 24
  5. The role of the Nodal e-Governance Agency (NeGA) 24
  6. Positing the objectives of governance reform against new possibilities of digital systems – Developing the system design principles for e-governance in India 25

**When doing e-governance, think structural change**

- Common service delivery platforms 26
- ICTs for taking 'power' and control to the edges – The self-governance imperative 29
- Before becoming citizen centric, governments will have to become frontline staff-centric – The blind-spot of the Indian governance reform 30
- An e-enabled push model for actualising RTI 31
- Public information agency – A new role and orientation 32
- Ensuring popular participation in governments beyond the election time 33
- A grievance redressal system that works – Separating a layer of citizen centric system of accountability from execution functions 33
- ICTs for increasing government's capacity to serve – Networks and partnerships oriented governance 34

**From strategic levels to implementation – Getting to the brass tacks**

- The implementation framework – Clear areas of competencies, with effective means of collaboration 35
- IT departments should do the important IT work that enables e-governance 35
- Core governance activities - The site of real e-governance 36
- E-governance restructuring as co-constructing government systems - If participation is important in governance, it is more important in constructing governance processes 37
- ICTs are essentially system technologies, and are best leveraged through an end-to-end systemic change approach at implementation levels 38
Recommendations for meaningful and successful e-governance in India

Part 1 - Context and Background of the Recommendations

What is e-governance?

E-governance is a new and evolving, and, often, a contested subject. It still means different things to different people. It is therefore important to understand what is meant by e-governance and relate it to the context of governance in India, before offering recommendations for meaningful and successful e-governance in India.

A good way to attempt such understanding is to figure out what e-governance is not. E-governance is not merely the use of information and communication technologies (ICT) in the government sector; neither is its meaning exhausted by 'online provision of government services'. Using digital technologies for ensuring single-window delivery of a host of government services goes a step further because it takes into consideration the context of citizens who may not have access to the Internet. E-governance, however, is something much more than such common front-ends for different government departments.

The 'e' in e-governance clearly signifies that it has to do with the new ICTs. Beyond that, the meaning of e-governance has to be determined from the substance and objectives of the governance domain, in the specific contexts of its application. We have seen in the case of business - and it is increasingly evident in more and more sectors - that the use of ICTs tend to transform organisational and social structures. The most successful business entities have used digital technologies to transform themselves in a manner that enables much more effective achievement of their business or enterprise objectives. Within the overall business objective of 'maximising profit' (or shareholder value), specific enterprise objectives have differed for differing businesses entities, and thus also their e-business visions and strategies.

Box 1: E-business is not necessarily being online

Wal-Mart to most people is a chain of brick-and-mortar shopping stores with little 'e-business' about it. There are others, however, who see Wal-Mart not as a chain of stores with an excellent logistics network, but as an outstanding logistics networks with front stores in different neighbourhoods; such is the dependence of Wal-Mart's business model on its e-enabled logistics system.¹ This is good example


IT for Change, May 2008
Recommendations for meaningful and successful e-governance in India

Accordingly, it is most appropriate to define e-governance simply in terms of use of ICTs for achieving various objectives of governance systems. The Council of Europe (CoE) defines e-governance as "the use of electronic technologies in three areas of public action: relations between the public authorities and civil society; functioning of the public authorities at all stages of the democratic process (electronic democracy) and; the provision of public services (electronic public services)." This is to define e-governance in terms of what it does – which is to maximise achievement of organisational objectives. In terms of how it can be done, CoE speaks of "the use of information and communication technologies in public administrations combined with organisational change and new skills...."3 whereby for any chance of real success, e-governance needs to be a transformational agenda.

It has been proven in the case of e-business that the impact of ICTs is most profound, and indeed transformational, if digital systems are used to re-engineer business systems and processes. Such re-engineering or restructuring of business requires taking a 'back-to-basics' approach, re-examining the entire business operation in context of the most basic objectives of the enterprise. Most governments with successful e-governance programmes use the term 'transforming government' or 'transforming governance'- in characterising their e-governance activities. For instance, UK, USA, Canada, European Union, New Zealand, Australia, Finland France, and Denmark are a few of the top achievers that use these terms in their e-governance strategy documents.

An approach paper of the Second Administrative Reforms Commission observes that, "There is a need to restructure our political and governance institutions and rejuvenate our Republic....Otherwise, the growing cynicism and despair among large sections may shatter public confidence in democratic institutions."4 The Commission’s report on 'Ethics in Governance' observes that "the focus should be on e-governance and systemic change".5 It is therefore a matter of highest political importance to give a serious consideration to the potential of e-governance for transforming India’s governance systems, and to put adequate resources and energy into this task.

Box 2: Transforming governance

The number of governments that use the term 'transformational' to characterise their e-governance efforts keeps rising. All these governments have had a long experience in this area, and therefore can be expected to have this rhetorical sounding expression grounded in some reality. UK's latest e-

---

2 http://www.coe.int/T/E/Com/Files/Themes/e-voting/definition.asp
3 Ibid
4 Reforms in Governance and Administration, http://arc.gov.in/reforms.htm
governance strategy document is titled 'Transformational Government – Enabled by Technology'. The Public Governance Committee of the Organization for Economic Cooperation and Development (OECD) issued a report last year which is titled 'E-Government as a Tool for Transformation'. New Zealand has an e-governance strategy document called 'Enabling Transformation'. Both US and Canada speaks of 'transformation' in their e-governance strategies. Australia sees "e-government as part of a wider transformation agenda", and the spirit goes down to provincial levels. Achieving 'full e-government transformation' is identified as the goal of e-governance by the West Australian administration. The 'transformation' term finds a central place in the e-governance strategy of many other countries as well.

E-governance – The international scene

In all the countries mentioned in the last section, e-governance strategies are located within the overall governance reform projects. In most cases they are already an indistinguishable part of an overall reform or 'modernisation' process. Much of this reform process is indeed built over the new digital opportunities; however the distinction between the ends and the means is kept quite clear. The digital technologies do not drive a governance reform agenda of their own, they merely provide new opportunities for existing governance priorities.

In case of most of these countries, e-governance is applied to achieve the objectives of the chief public sector reform ideology since the early nineties – the 'new public management' (NPM), the 're-inventing government' initiative in the US. These overall frameworks of reform are politically determined, and use of digital technologies is merely making possible new levels of achieving these objectives. Among different developed countries, governance reform, and consequently e-governance, have significant differences of focus, even within a broader framework of NPM. While in the US the major objectives are cost saving, internal efficiency, private partnerships and performance measurement; in the UK personalised services is the top objective of governance reforms and a shared-culture within the government the main way to achieve it. Both e-governance strategies and implementation have corresponding differences in orientation, as well as many common elements.

---

7 www.oecd.org/dataoecd/11/36/38013687.ppt
8 www.e.govt.nz/about-egovt/strategy/strategy-nov-06.pdf
9 http://www.dbcde.gov.au/Article/0,0_4-2_4008-4_113988,00.html
Box 3: E-governance is regular governance reform with new possibilities

In the US, 'Expanding E-Government'\(^{12}\) is "integral to a five-part President’s Management Agenda (PMA) for making government more focused on citizens and results". All of the PMA elements, including Expanding Electronic Government, adhere to three guiding principles: (1) Citizen-centered, not bureaucracy or agency-centered; (2) Results-oriented, producing measurable improvements for citizens; and (3) Market-based, actively promoting innovation. UK’s e-governance strategy, on the other hand, puts a more central emphasis on personalised services and shaping services around needs of the citizens, who may be heterogeneously placed. These have been identified as the most important public sector reform objectives, most recently expressed in the policy review document 'Building on Progress: Public Services'.\(^{13}\)

An OECD review of e-governance in Finland observed that, "the development of e-government in Finland has been shaped by overall reforms in the public administration...Public administration reform has provided an overall vision and objectives for improving public service quality and efficiency and for developing e-government goals and responsibilities in Finland".\(^{14}\) A similar review in Norway asserts that "public sector reform has been a main driver of the development of e-government".\(^{15}\) And in the case of Mexico, the OECD review poses the following as one of the most important challenges, "How can the government improve the policy links between e-government and the other objectives of the reform agenda?"

A visioning exercise by EU members for e-governance\(^{16}\) observed that the EU "places eGovernment at the core of public management modernisation and reform, where technology is used as a strategic tool to modernise structures, processes, the regulatory framework, human resources and the culture of public administrations to provide better government, and ultimately, increased public value".\(^{17}\)

The context of governance reforms in India

Currently, the major thrust areas of governance reform in India are self-governance and decentralisation (strengthening Panchayati Raj institutions), Right to Information (RTI) and, community participation and monitoring of development activity. In addition, social inclusion is a high political priority, which, in terms of governance systems involves reaching out – both in servicing and participation – to the disadvantaged sections of the society who, it is feared, may be left out of the current economic surge being experienced by a section of India. Governance reforms towards greater social inclusion will seek increased reach and capacity for serving disadvantaged sections, developing means of improving accountability to them, as well as enhancing their participation. Overall, a greater move towards citizen-centric thinking and structures has also been a governance reform priority.

\(^{13}\) http://archive.cabinetoffice.gov.uk/policy_review/documents/building_on_progress.pdf
\(^{14}\) http://www.oecd.org/dataoecd/20/50/13314420.pdf
\(^{15}\) ‘OECD e-Government Studies : Chapter 4. Planning and Leadership’ URL: http://www.ingentaconnect.com/content/oecd/16080246/2005/00002005/00000022/4205151ec004
though, unlike some other reform areas listed above\textsuperscript{18}, in this case, neither necessary institutional-legal nor any other significant structural changes have been made to lead the necessary changes.

Some of the priorities of governance reforms in India are aligned to the NPM thinking – citizen-centricity (especially in terms of citizen's identity as a customer of government services), emphasis on performance measurement, increased internal efficiencies, private sector like management practices, using public-private partnership wherever possible and appropriate, and reducing costs. However, it is important to note that NPM thinking only represents one side of our governance reform priorities – which mainly pertains to the customer identity of the citizen, and internal efficiencies of the government system. Most of the above described governance reform initiatives in India pertain to citizen's identity as the 'owner' of governance systems, and accordingly deals with issues related to processes of participation (self-governance) and accountability (RTI and community monitoring). Equity is as much a concern as efficiency in current governance reforms in India.

The reasons for the different emphasis and directions of the Indian governance reforms vis-à-vis those in the developed countries are not difficult to understand. In the latter, the context of reform is a relatively mature institutional ecology of a welfare state absorbing 35-50 percent of the national GDP. Whittling down this huge proportion by increasing efficiencies is understandably the major concern of governance reforms in these countries. The governance systems and institutions in India, on the other hand, are still in formative stages with regard to what can be called a modern welfare state. The task of the reform processes therefore is to shape these institutions, so as to enable them to function efficiently. Such shaping emphasises the element of citizen's control and participation in a political evolution of governance systems, as much as it does internal system efficiencies and cost effectiveness.

To conclude, it is necessary that e-governance in India is located within the country's politically accepted and articulated governance reform priorities. Very often e-governance thinking and processes are imported uncritically from practices in the developed countries, and come wrapped in priorities and ideologies of governance reform of those countries. This has resulted in a certain chasm between e-governance and other thrust areas of governance reform in India, at ideological, institutional and practical levels. E-governance can help achieve 'new public management' priorities of governance reform, but it can as easily be employed for other objectives of governance reform. In other words, the e-governance vision and strategy in India should be located in the overall vision and strategy of governance reform in India. At the same we need to remain cognizant of the fact that with digital-based work processes opening up entirely new organisational and structural possibilities it is necessary to revisit overall governance reform strategies as well.

The primary task of formulating India’s e-governance strategy therefore is to figure out the meaning of new digitally enabled transformative possibilities and translate that in terms of the specific governance reform objectives of India. This enables us to understand ‘what is to be done’ by and through e-governance in India. ‘How to do it’ follows from this articulation of ‘what’. In this area, the single most important issue is of an appropriate institutional framework and mechanism for leading and implementing e-governance in India, which is addressed in the following two sections.

\textsuperscript{18} Decentralisation and Right to Information reforms are backed by, in fact largely propelled by, strong legislative measures. Community monitoring is increasingly incorporated in most government programmes.
Box 4: Is India ready for e-governance?

E-governance is seen by many as a luxury India may not be in a position to afford. It is seen by skeptics as taking attention away from the real problems of the people. It is often supposed that even if e-governance may offer some solutions in the future, the time may not yet be ripe in India. The main concerns are: (1) the financial costs of migrating to digital systems and, (2) the new exclusions that may be caused for people not 'digitally-literate'.

The 'financial costs to the system' issue has four important aspects that need consideration.

1. Migration to digital systems is inevitable. There certainly are costs involved in the transition, but these systems provide such huge efficiency gains that even small organisations in smaller towns in India have begun to see their overall cost saving and efficiency enhancing role.

2. Once the basic hardware and connectivity is provided - the costs of which keep falling dramatically - digital systems are about people and processes. Incidentally, India has one of the world’s best human resources in IT and IT-enabled processes. Therefore, if taken up in a well thought-out strategic manner, appropriately leveraging local talent and local 'solutions', e-governance is not a very expensive proposition for India.

3. Since digital systems represent a society-wide transformation, and will be inevitably integrated in most, including within governments, economies of scale ensure that costs fall rapidly as absorption goes up. On the top of this, ICTs have a typical 'network effect' whereby if appropriate technology models based on community-based collaborative efforts are adopted - as in case of Free and Open Source Software and open, collaboratively produced content - the marginal costs to the social system as a whole become very low even in the mid-term. The public sector with its huge procurement 'muscle' as well as policy and practice based standard-setting role, is uniquely place to trigger and support such low-cost collaborative models of ICT production and use. It would, however, require a concerted effort, under clear strategic directions to do so.

4. Lastly, since the area of e-governance is new and largely untested, the greatest amount of cost in e-governance is in taking wrong strategic directions. The 'failure-cycles' related cost factor therefore also is a compelling reason for taking a high level strategic approach to e-governance. Costs are most relevant in relation to outcomes, and it is possible to leverage the 'transformative potential' of ICTs in the governance area in such a manner so as to give a very favourable cost-benefit equation.

As for the concern about digital exclusion in governance, it is important to note that e-governance does not mean that the citizen necessarily has to interface with the government through electronic means, a point which has been made earlier. ICTs can in many ways enhance physical, voice-based and/or paper-based interactions between citizens and the governments.
Recommendations for meaningful and successful e-governance in India

**Institutional frameworks for leading e-governance**

In the earlier sections, we noted two key requirements for successful e-governance in any country. We will now try to connect these requirements to the necessary institutional framework for carrying out e-governance. One, that e-governance presents a major systemic reform and transformation possibility for governance systems of any country. However, realising this possibility requires a strategic plan for far-reaching structural changes across the governments. This calls for the highest levels of the government to take up the responsibility for visioning and strategy. Second, e-governance merely represents a set of organisational restructuring possibilities, and its substantive objectives and content has to be determined by existing priorities of governance reform. E-governance institutional framework therefore needs to be located within the wider institutional framework of governance reform of any country.

In all the countries with an impressive record of e-governance mentioned earlier, these institutional requirements are, by and far, met. The chief executive’s office generally has a direct and close association with e-governance strategy (e.g.: US, UK, Ireland, Australia, Brazil, Mexico), with a committed structure under it directly responsible for this task. In all these countries, as stated earlier, e-governance is a part of overall governance reform institutional framework. The respective department or agency in charge of governance reform is also responsible for e-governance strategy and coordination.

**Box 5: E-governance is primarily about governance and not IT: So why should it be led by IT departments**

The US federal government's e-governance effort is led by the President's office, through the Office of Management and Budgets. In UK this responsibility is with the E-Government Unit in the Cabinet office. In Brazil, the Minister Chief of Staff of the Brazilian Presidency is responsible for implementing the country's e-government vision. In Ireland e-governance is directly under the Prime Minister's office. In Mexico recognising the need for greater institutionalisation of e-government, the e-government unit has recently been moved from the President's office to the Ministry of Public Administration.

In South Africa, e-governance is with Department of Public Service and Administration - Office of the Government Chief Information Officer, and in Australia with the Department of Finance and Administration – Government Information Management Office, overseen directly by a Special Minister of State.

---

19 [http://www.whitehouse.gov/omb/](http://www.whitehouse.gov/omb/)
Recommendations for meaningful and successful e-governance in India

In Denmark e-governance is a part of the Ministry of Finance's government modernisation programme, in Korea it is with the Ministry of Government Administration and Home Affairs, in New Zealand the responsibility lies with the State Services Commission, in Finland with the Public Management Department, and in Norway with the newly created Ministry of Modernisation.

In fact there is no country with any serious e-governance effort where the IT Department is in charge of e-governance.

A central element of an appropriate institutional framework for e-governance, arising from its unique technology basis, is of the relationship between substantive 'governance reform' domain and the technology domain. ICTs are new organisational and work technologies, more so in case of developing countries. Those concerned with social domains, including of governance reform, often take an attitude that anything technology, including technology enabled organisational and social process changes (which is what e-governance essentially is), should be left to the technologists. The latter, on the other hand, are often quite happy to try their hands on these 'new' and perhaps more exciting areas for them. This misguided representation of e-governance as primarily a technology domain has resulted in significant distortions in institutional frameworks for e-governance, especially in developing countries.

Some basic technology conditions and technology skills are no doubt necessary for e-governance. However getting the technology right is only one requirement, and those in charge of this aspect cannot be leading e-governance, as often happens in countries with under-developed institutional capabilities in the area of governance reform.

It is important to understand the technology requirements for e-governance to ensure an appropriate management structure for public sector technology, and its relationship with governance reform department/agency for successful e-governance. These requirements are of two kinds. First is the convergence across-the-system technology requirements, often called the 'common infrastructure' for e-governance. Such common infrastructure include issues like technology standards and protocols; soft infrastructure, like platform and software model choice, security aspects, and generic software that are widely used in a government system; and hard infrastructure, like connectivity networks and data centres.

The second kind of technology requirement for e-governance is some basic readiness and capacity in all parts of a governance system to shift to digital working. This includes both some level of availability of technology for generic use – hardware, software and connectivity – and human capacities. Basic migration to digital systems, like e-mailing, today is taking place across social organisations without any centralised strategies. Some very obvious automation of work processes - applying technology to existing processes - may also take place in this manner. Such automation

25 http://www.fm.dk/1024/default_eng.asp
26 http://www.mogaha.go.kr/warp/webapp/home/en_home
27 http://www.ssc.govt.nz/display/home.asp
28 http://www.vm.fi/vm/en/02_ministry/02_organisation_and_functions/06_public_management_department/index.jsp
Recommendations for meaningful and successful e-governance in India

mostly takes place within narrow 'departmental' visions of their immediate tasks, priorities and authority, and it does in itself enable some significant improvements in existing systems. For instance, digitised MIS\textsuperscript{30} allow for greater control, faster and more informed decision-making, and ability to publish information on the web, which can be of great benefit to citizens.

It should be obvious that both, the provision of 'common infrastructure' and system-wide readiness for, as well as activity of, absorbing digital work processes, need to serve an overall vision and strategy provided by the agency responsible for e-governance. As discussed earlier, such an agency, in most developed countries, is anchored in the institutional framework of overall governance/administrative reform. These countries have set up a clear protocol between a nodal e-governance agency and parts of the government responsible for 'common infrastructure' and technology expertise on one hand, and department level automation or e-governance activity on the other (see the earlier box for examples of such institutional separation of responsibilities).

On the other hand, the part of government dealing with overall IT policies, including industry polices and universal access policies (preferably, the two should themselves be separated), is different from e-governance agency and public sector IT support agency/department. In the US, for instance National Telecommunications and Information Administration (NTIA) is the federal agency that is in charge of domestic and international telecommunications policy.\textsuperscript{31} NTIA is also the US President's principal advisor on telecommunications matters. One of the NTIA's goals is to make sure that everyone in the United States has affordable access to phone and cable service.\textsuperscript{32} However it has nothing directly to do with e-governance in the US. Most other developed countries also have IT and telecom agencies with no role in e-governance, other than to reach basic IT and telecom to all citizens, which is something very different from e-governance per se (see Denmark’s example in the box below). New Zealand's digital strategy charted by the Ministry of Research Science and Technology is based around the enablers connection, content and confidence - affordable high-speed connection for everybody, diverse high-quality content, and the building of capability and confidence to use digital resources in the society.\textsuperscript{33} Australia too has a separate Department of Broadband, Communications and the Digital Economy\textsuperscript{34}, which doesn't figure prominently in its e-governance set-up.

Such logical and institutional separation of governance reform aspects of e-governance from public sector IT support, and general IT and telecom policies alone can enable an e-governance approach centred on governance issues rather than a technology-centric one, which, for all its claims to the contrary, has been the principal way that e-governance has been carried out in India. Such separation ensures that social priorities determine technology use, and not the other way around - which is an oft stated dictum in context of technology induced social changes. The dangers of the latter approach can be very far-reaching, and without going into more details, one may only mention here that in context of e-governance such an approach may not only under-optimise governance reform possibilities that have

\textsuperscript{30} Management Information System
\textsuperscript{31} http://www.ntia.doc.gov/
\textsuperscript{32} Details on the National Telecommunications and Information Administration Coupon Program, http://www.associatedcontent.com/article/530401/details_on_the_national_telecommunications.html
\textsuperscript{34} http://www.dbcede.gov.au/
Recommendations for meaningful and successful e-governance in India

become available today, it may hardwire such values in new restructured governance systems which are not derived from political priorities of the country, and may even be alien to them. For instance, a market approach to governance is a hotly contested territory, and viewed from its possible benefits and disadvantages for core governance objectives of equity and social justice. The Approach Paper of the Second Administrative Reforms Commission, quoted earlier, cautions that, "...the assumption that market is the answer to all our challenges is a dangerous and irrational one". However, in e-governance such an approach is often taken uncritically, without any reflection at all.

Box 6: Public sector IT support for successful e-governance

IT is the very platform on which e-governance is built. Any e-governance institutional framework therefore has to ensure appropriate relationship between governance reform aspects of e-governance and 'public sector IT support'.

In UK, the distinction between issues of 'service transformation' and process/system restructuring on one hand and technical common infrastructure on the other is kept very clear. Under the overall remit of the E-Government Unit, the former is the responsibility of the 'Service Transformation Board' and the 'Chief Information Officers Council', and the latter is taken care of by the 'Common Infrastructure Board' and the 'Chief Technology Officers Council'. The technology support groups are clearly there to serve the priorities of the 'business' groups.

In the US, while the e-governance strategy is provided by the Office of Management and Budget (OMB) under the President's Office, separate structures for public sector technology support to serve e-governance strategy have been laid out. In 2006 OMB identified the Infrastructure Optimization Initiative (IOI) as an e-governance Line of Business (LoB). The federal logistics support agency, General Services Administration (GSA), was selected as the managing partner for this LoB. A government-wide IOI Task Force was created to develop 'Common Solutions' to realise the goals and objectives of this LoB. Within GSA, the technology support activity is looked after by the 'Office of Technology Strategy'.

In Denmark, while the e-governance programme is a part of Ministry of Finance’s government modernisation programme, the Ministry of Science, Technology and Innovation contributes, via the government's IT policy and the public sector IT policy, "to the realisation of government policy with respect to citizens, businesses and the public sector". This Ministry is responsible to the public sector for technical development, including the compilation of standards and policies.

35 Reforms in Governance and Administration, http://arc.gov.in/reforms.htm
36 http://archive.cabinetoffice.gov.uk/e-government/
37 http://www.whitehouse.gov/omb/egov/c-6-9-ioi.html
39 http://oldegov.dk.upsilon.t3c.dk/english/egovernment/egovernment_strategy/development_and_implementation/index.html
India’s e-governance institutional framework

Until 2006, when the National e-Governance Plan (NeGP) was approved by the Government of India, e-governance was only mentioned as a part of IT policies of the Indian governments.\(^\text{40}\) There has been a lack of clarity about e-governance possibilities from a systemic change perspective, and generally the effort hinged on digitisation/automation of departmental processes. Many of these automation activities became the basis of some degree of systemic reform, for instance computerisation of land records, which enabled significant transformation of the processes for obtaining land records, providing convenience to farmers while reducing corruption. Some initiatives have provided a single-window for governmental services, and these have led to some degree of change in the perception of the nature of government-citizen interface, both in the eyes of the citizens and the government employees, apart from facilitating citizens in availing government services. However, the impact of such initiatives has mostly been limited to simple ‘pure information-based’ processes (like, records) and simple transactions (like, bill payments), and has not lead to any systemic reforms.

In addition, digital MIS have been of significant help for quicker and more informed decision-making, as well as for monitoring governance processes and development schemes. Automation has also led to better financial and budgetary management, as well as improvement in managing personnel and other resources. Some amount of web publication of government information (however, not of the kind that is most sought after by the citizens and does not relate to their interests directly) and in some cases, downloadable application forms, have added to the convenience, and to some extent, accountability, to the citizen.

Some officials went further and put up online grievance redressal systems, with ‘process view’\(^\text{41}\) features provided as the grievance application moved within the government processes. A very few online systems of tracking some other citizen-government interactions also do exist. Fewer e-governance champions within governments dared to provide access to deeper layers of government information for citizens' scrutiny – like publishing all applications for social welfare entitlements online, in order to ensure transparency.\(^\text{42}\) However, such one-off efforts, since they strongly challenge vested interests, have come against various forms of resistance in the absence of clear policies and strategic directions from higher administrative and political authorities. In most places, these governance reform innovations, which have considerable possibilities for far-reaching systemic change, have been discontinued with the departure of the 'champion', and in other instances, they are working in a very under-optimal fashion.

The contribution of government policy to e-governance, at this stage, has mostly been to the extent of ensuring some basic digital infrastructure in government offices\(^\text{43}\), which has been used by e-


\(^{41}\) Digital systems allow the whole work process to be viewed by anyone anytime.

\(^{42}\) Rural e-Seva in West Godavari, Andhra Pradesh and E-gram in Gujarat

\(^{43}\) Very early in this decade governments promoted the target of spending at least 3 percent of departmental budgets on IT.

*IT for Change, May 2008*
Recommendations for meaningful and successful e-governance in India

governance champions within governments to do some significant department level
digitisation/automation activities. In many sections of governments in India such incremental bottom-up efforts at automation of many work processes continue to happen, in a manner which mirrors present processes, while taking benefit of much greater efficiencies of digital systems. Policies enabling enlistment of external experts for e-governance project have gone a long way in making many such department level projects possible. The staff of the National Informatics Centre (NIC), present in all districts, have also been a great help in these early stages, and have developed many useful applications to support process automation.

The National E-governance plan (NeGP), which was approved by the Government of India (GoI) in 2006, is the first attempt at a national plan and structure for e-governance in India.\(^\text{44}\) It consists of two main components – one is the 'core and support infrastructure' (common infrastructure), and the other is a set of Mission Mode Projects (MMPs)\(^\text{45}\) which will be managed by various central government and state governments departments. The overall programme management responsibility is with the GoI's Department of Information Technology (DIT). It manages the common infrastructure component directly, and through providing guidelines and assistance to the state government IT departments. On MMPs, there is a very sketchy identification of key areas for e-governance but no strategic vision or guidelines are provided. However DIT, through the Project Management Unit, does the 'appraisal of proposals for Central/State MMPs and other projects' for implementation methodology etc and identifies resources to provide assistance in project conceptualisation, development and implementation to various implementing agencies. Therefore, the DIT does have a great deal of control over these projects.

Such leadership of e-governance in India by a department with a primarily technology-centric mandate, without there being a strategic vision and policy for governance reform through e-governance, is very problematic. In fact, this is resulting in a 'double abdication' of strategic responsibility for e-governance in India - by the departments executing MMPs, because they may take it that it is the job of the DIT as the agency in charge of the project management structure to provide such overall governance reform vision and strategy; and by the DIT, which, apparently considers it a department level activity to visualise what it wants to do and how, and concerns itself mostly with technical and project management support. This 'vision and strategy' gap with respect to governance reform and restructuring through e-governance in India, and the technology-centric leadership, are the two key failures of its existing institutional structure, and needs to be remedied for any meaningful e-governance outcomes.

The NeGP, however, does provide a new, much more integrated and solid basis for technology and financial enablement of e-governance activity in India. It fulfills the critical 'common infrastructure' requirement for e-governance, which will be provided and managed by DIT along with state IT departments. It also provides financial and management support to department level e-governance projects. However, as mentioned above, what is missing is a comprehensive vision and strategy for e-governance enabled structural reform/ transformation in governance systems in India. Putting in place a common infrastructure and streamlining regular department-led e-governance projects, which are mostly automation oriented, will together certainly produce some movement towards systemic changes.

\(^\text{44}\) \(\text{http://www.mit.gov.in/default.aspx?id=144}\)

\(^\text{45}\) \(\text{Ibid}\)
Recommendations for meaningful and successful e-governance in India

However this level of reform may be too little, and vastly under-optimal in relation to the real opportunities that exist today. More significantly, there is no guarantee that these structural changes will incorporate the values and objectives of governance reform in India that have been politically determined and prioritised, an issue that is illustrated a little later.

The Indian National Knowledge Commission (NKC)\(^{46}\) recommendations on e-governance assert that simply digitising the existing governance processes will be of no use, and can even be counter-productive, and that government process redesigning should precede digitisation. However, if automation without process redesigning may be worthless, designing government processes and systems without incorporating core values and strategic objectives of the required governance reform, as contextually prioritised for India, may actually be dangerous. An important UN report on e-governance speaks of how "ICT in the hands of public administration, represents a great power to transform" and it can get used for both positive and negative social outcomes (see the box below).

**Box 7: E-governance – A double-edged weapon**

The United Nations Department of Economic and Social Affairs (UNDESA) report, 'World Public Sector Report 2003: E-government at the Crossroads'\(^{47}\) is worth quoting at some length on the issue of key 'higher level' policy choices involved in e-governance, which cannot be abdicated by any government.

"Right now, very few dispute the claim of the New Public Management reformers that efficiency and effectiveness is possible in government operations. Therefore, for many, building e-government applications for the sake of efficiency and effectiveness alone is a beneficial enough initiative. However, a discussion on the use of ICT to raise efficiency and effectiveness would not present the whole picture. It would also have to address the fundamental issue of the 'trade off' with which the introduction of modern ICT confronts any society."

"In the case of e-government, this trade-off and the concerns that it raises have to be considered early on and carefully. ICT alone, to say nothing of ICT in the hands of public administration, represents a great power to transform. This power can follow one of two logical paths. On one hand, it can follow people's preferences, i.e. it can recognise the supremacy of the societal context that is preferred and chosen by people and support and serve it. In particular, it can respect the values by which people prefer to live and factor them into ways in which the new technology is deployed. On the other, especially in the absence of policy guidance, it can be adopted by traditional political and commercial forces and through them establish its own supremacy, i.e. make people live with the changes that it introduces to the societal context regardless of whether these changes reflect what they want and involve those things to which they have the right. The turn that we make at this crossroad will lead us towards world making, or towards just measuring the tread marks left by the technology-led governmental bulldozer. This is a policy choice too."

\(^{46}\) [http://pib.nic.in/archive/others/2006/may2006/nkc20060509.pdf](http://pib.nic.in/archive/others/2006/may2006/nkc20060509.pdf)

India's NeGP describes its vision as, "make all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency & reliability of such services at affordable costs to realise the basic needs of the common man".\(^{48}\)

This vision mostly concerns one single important requirement of reform in Indian government system, to increase the physical reach of the system to all parts of the country, which is sought to be ensured through technology-enabled points-of-presence called Common Service Centers (CSC).\(^{49}\) On the other hand, it introduces almost as a necessary ingredient in service delivery, the concept of certain 'costs' to the citizens, without even using the qualifier, 'where ever applicable'. The basis of such an approach is not difficult to understand when coming from the IT department. Technology is normally considered a paid-for service, and the same idea is extended to IT-assisted 'services' which e-governance is essentially seen to be. The basic conceptual basis of the above vision is that IT can help government services reach where human intensive out-reach efforts have failed, and the organisational systems around such IT-assisted service delivery are best developed by leveraging market forces, which have a common objective of using IT to extend markets to under-served areas. The technology/ infrastructure and market-centric approach of the NeGP is evident.

Accordingly, the key component of the CSC programme is a private sector agency that covers 2-3 districts, and both sets up CSCs, and develops a host of services for delivery using these points-of-presence. Governance services are just a few among a bouquet of commercial services delivered by the CSCs, and much of the service redesigning consists in trying to shape government service transactions to align as closely as possible to normal commercial transactions, to enable them to fit in the CSC business model.

These conceptual notions, and consequent implementation 'strategy', though with some justification, are at one level too simplistic, and at another, quite dangerous, to be considered as the primary drivers on India's governance reform through e-governance. But that is precisely what is happening with NeGP, and its flagship programme of CSCs, in the absence of any other more politically articulate and socially well-analysed and justified e-governance vision, strategy, guidelines and roadmaps.

There may be some benefits in starting with building a technology-assisted common platform for service delivery and also in, wherever appropriate, leveraging market forces for organising 'delivery' of services, but making these issues as central and essential to e-governance through a vision statement as above, can have far-reaching implications for governance institutions and practices, and citizen's rights, in India. It sets up some strong, political directions for governance reform without adequate socio-political examination, and consequent legitimacy, which can potentially difficult to reverse due to the power of new technologies.

It is possible that in some cases, putting a layer of common service delivery centers between government officials and the citizens can be of some use in measuring performance and extracting accountability, but no such implications are analysed and drawn in the NeGP. Connectivity among

government offices through State Wide Area Networks (SWAN)\textsuperscript{50} and State Data Centres (SDC)\textsuperscript{51} – the two other central components of NeGP apart from CSCs - can also be expected to provide some efficiency benefits to the working of government systems; however it is also not substantiated in the plan how they can or will be used for greater transparency and accountability. Other such core technology related e-governance activities like common portals, citizen's digital identity etc, which are very important aspects of e-governance, and also justifiably IT Departments' remit, are also not exposed to enough research and analysis on social, political and 'governance' aspects, and driven often by a certain degree of technology-fascination.

There is therefore a complete absence of any strategic vision or plan, or any social analysis at all in the NeGP. It is unlikely that e-governance can succeed without such a vision, strategy and social-analytical basis, and unless implementation is done in a manner that stresses on substantive aspects of governance reforms and not just technical and managerial issues. There is no mention in the NeGP of the main arenas of governance reform in India - self-governance institutions, Right to Information, community participation, citizen charters etc. - and no attempt to connect e-governance to policies and efforts in these areas.

Although, there is an institutional structure for the NeGP in the form of an Apex Council under the Prime Minister and an Apex Committee under the Cabinet Secretary there are no specific support structures for them, and the DIT is responsible for almost all the thinking, planning and work. The Council and the Committee appears mostly for the purpose of rubber-stamping the DIT's plans which can enable speedy directions to and compliance from multiple agencies that are involved in the NeGP implementation. There is no system for developing and sharing strategic plans for furthering the governance reform agenda - either with higher political and administrative levels, or with the citizens and other concerned bodies at large - the first step of which consists in interpreting and presenting e-governance in the terms and language of a plan and a set of governance reforms like any other, and not a technology and project management activity. Such a reinterpretation and presentation of e-governance alone can attract the interest and attention of the higher administrative and political quarters. This important imperative is almost systematically avoided in the way e-governance is taking place in India. Significantly, the Department of Administrative Reforms (and Public Grievances) of Government of India, and corresponding agencies at the state level, mostly have no role in the institutional matrix of e-governance in India, which remains strongly IT ministry centered.

Box 8: Looking ahead – The next steps in India’s e-governance

Many typologies of different stages of e-governance have been offered over the last few years. We present another typology building on the experience of e-governance in India, its current status, and the future possibilities and imperatives. Accordingly, we can see three phases of e-governance efforts in India.
Phase 1: It represents bottom up, un-coordinated activity of digitisation and automation, and in some cases some degree of system redesign, which have been happening as a normal process of adoption of digital processes in most organisations, and as driven by some entrepreneurial government officials, respectively. These efforts are important but they under-optimise the real opportunities of a system-wide reform through e-governance, as has been discussed earlier.

Phase 2: This comes with the NeGP, when for the first time, an India-wide plan and structure for e-governance is being developed. The accent is on developing a common 'core and support infrastructure'. This common infrastructure, including CSCs, help e-governance efforts to take the next leap by opening technological and infrastructural avenues for bottom up e-governance efforts which were not available before. The NeGP also contributes to e-governance by ensuring a certain systematisation of financial and project support.

Phase 3: This is the phase of strategically determined governance reform through e-governance, which meets the political imperative of a systemic change, already expressed and anchored in existing governance reform efforts towards citizen centric governance, self-governance, right to information and community participation/monitoring. Normally such strategic considerations should come as the first phase, but in the new and fast-changing context of ICTs, and their current or potential impact on organisations and society, it may only be normal and appropriate that this phase comes after a certain amount of initial experience and learning in the field of e-governance has been built. It is our considered view that such a stage has now been reached in India, and we should move on to this strategic phase of e-governance which, while not supplanting the activities of phase one and two, should consist in laying the overall vision, strategy, guidelines and implementation roadmap, as derived from the political imperatives of governance reform in India, within which activities described in phase one and two should take place.

While no e-governance vision and strategy document has been provided by the DIT for the state governments, it has shared a set of guidelines for building capacity and institutional frameworks for governance activity. These guidelines stress managerial and technical issues, and seek to replicate an IT department-centered institutional mechanism for e-governance at the state levels. One of the requirements of these guidelines however is for the states to develop an e-governance roadmap. Development of these roadmaps has mostly been outsourced to private consultancy companies, often from the technology sector.

The roadmaps that have been developed so far show a predominantly managerial and technical approach to e-governance, with little connection to critical issues of governance reform like self-governance, decentralisation, Right to Information, accountability, community participation and genuine citizen centricity. Moreover, some of these roadmaps speak of governance priorities in a way very different from how these are traditionally seen by the Indian social and political system. For instance, more than one such state roadmap while analysing the education sector lays out as a priority that education be promoted as 'as one of the main revenue earning sectors'. This will appear to be

very odd thing to say, less a priority to articulate, in connection with the public education system for anyone with any degree of familiarity with the education domain in India. Such a 'priority' of course has no basis in any education policy documents in India, which raises a very critical question about the substantive impact that wrongly handled e-governance is likely to have on India. E-governance activities suggested by these 'roadmaps' for different departments mostly take forward narrow departmental visions of MIS and digital databases with the citizen seen exclusively as a consumer and beneficiary of government services. The 'citizen' is viewed as a passive receiver of services provided by governments, at the most giving some 'feedback' on these services. The ownership and participation of the citizen, which, as discussed earlier, underscores current governance reforms like self-government, Right to Information and community participation/monitoring are entirely absent in these roadmaps.

One may not be too surprised by such orientations of the state e-governance roadmaps given that these are prepared by private sector agencies with little understanding of Indian governance context and priorities, and the client departments often see these documents not as substantive governance reform roadmaps but as 'project funding requirements' for obtaining e-governance funding from the central government. Apparently, apart from significant limitation of knowledge and experience of governance issues, private consultants do not take the 'risk' to explore and suggest really transformational possibilities. As a result, the MMPs under the NeGP, led by these 'roadmaps', are unlikely to go much beyond automation of some work processes. A certain degree of systemisation of such effort under NeGP may only help some amount of sharing of 'best practices' across states and departments and some level of standardisation and inter-operability, which can, in time, 'make possible' greater integration of work processes.

To conclude, it is apparent that in the Indian e-governance institutional framework, the accent is on technology and on project management, and the strategic aspect which would align e-governance to the objectives of governance reform in India, and thereupon develop an appropriate roadmap for e-governance, is absent. This is in sharp contrast to the governance institutional frameworks of almost all countries that have had any degree of success in this area. To fill this gap is the single most important and urgent requirement for meaningful e-governance in India, the kind which can transform Indian governance systems in the desired directions.

Box 9: Governance of e-governance – Getting the institutional framework right

International experience shows that whereas e-governance is expected to deliver transformational results, the manner of carrying out e-governance must be adequately imaginative. At a very basic level, e-governance activities have to be located in the overall governance reform efforts, and not a country's IT polices and plans. The latter exist to serve the governance reform agenda, and not to lead it. The manner of getting this relationship right has a cardinal bearing on the results that e-governance delivers – as serving a country's political agenda of systemic governance reform as per well-formulated reform objectives, or a vastly under-optimal set of disjointed efforts under-pinned by a techno-centric vision.
There are a couple of distinct areas in the e-governance landscape that governments need to understand in relation to each other, and accordingly develop appropriate 'governance' and institutional structures for and across these areas.

There are two areas which represent what is primarily and directly 'e-governance activity'.

**E-governance as systemic governance reform:** This area is of the overall vision, strategy and roadmap for e-governance as taking forward governance reform priorities. We have seen that this has to be the responsibility of the agency/department that look after governance reform, preferably through a separate e-governance nodal agency, and must have close and clear support of the highest political and administrative authorities.

**Distributed basic IT/ e-governance activities within various parts of the governments:** This represents the bottom-up IT related efforts that must be carried on in and by government agencies in various governance domains, which extends from getting basic IT equipment and infrastructure, developing capacities of the employees (not only about technology but also new tech-enabled work methods), to basic digitisation and automation work, which is of obvious value, as recognised at the agency level. These agencies will also be carrying out system-reforms related activities within the frameworks and guidelines for process/system changes provided by the nodal e-governance agency as well as their own interpretations of governance objectives.

There are two essentially IT areas that are related to and have a strong bearing on e-governance. Institutional frameworks for these need to serve the imperatives and requirements of the two kinds of e-governance areas/activities described above.

**IT for the Public sector:** This concerns direct technology support for e-governance. It consists of, on one hand, 'common infrastructure', which consists of technology related 'shared services' (connectivity networks, data cents, common portal, payment gateways, citizen's digital identity, etc) and includes developing standards, and on the other hand, providing technology advice to e-governance efforts.

**IT in the society:** At one level, e-governance is obviously also premised on an adequate level of technology availability and related human capacities in the society. This is what is often measured by 'e-readiness' indices. This area is about overall IT policy for the country that ensures basic infrastructure, capacity building and other requirements for an e-enabled society and citizens.

Both, 'IT for the public sector' and 'IT in the society', are important responsibilities of IT ministries, and should ideally have separate sections/departments since the two are quite different areas of policy and activities. In fact, 'IT industry' which, especially in the context of India's global stature in the IT sector, is another important area for IT ministries and should be a third section/department, quite distinct from the other two mentioned above. As should be obvious there are important differences in the context and needs of these three sectors within the IT domain requiring different orientations, polices and actions on part of the governments.
Recommendations for meaningful and successful e-governance in India

The sections/departments dealing with 'IT for the public sector' and with 'IT in the society' need to have close connections with those parts of the government that are directly involved with e-governance. However, they cannot lead e-governance. The strategic level of e-governance should be the responsibility of the Administrative Reforms Departments, preferable through a 'nodal e-governance agency'. Department level e-governance activities should be carried within an overall framework provided by this e-governance agency, and by using ‘common infrastructure’ elements and technology advice from the IT ministry.
Part 2 - Recommendations

Listed below are a set of recommendations for e-governance in India, building on the analysis done in Part 1 of this document.

Recommendations

1. Political assessment of the e-governance opportunity to reform Indian governance system – Developing the e-governance policy framework for India

At present, digitisation in governments is seen mostly as a simple extension of digitisation/automation of various organisational and social processes throughout the society. Such autonomous digitisation without any strategic vision for government wide reforms may lead to some systemic changes with positive outcomes – improved information availability, better decision-support systems and quicker and more efficient working in the governments. However it will not achieve the required level of transformation that people aspires for. On the other hand, there is a danger that through the system/process re-engineering that is being done in this ad-hoc manner, some aspects of the Indian governance system may regress a few steps on some of the priorities of Indian governance reform – like inclusion, participation, equity, welfare-ism and social justice.

It is therefore required that a thorough political assessment of the context, opportunities and the challenges of e-governance in India is made. This exercise needs to be done in a broad consultative manner - including, but not exclusively, through online means - with governance and social development experts, and not only with technologists and technology firms. This is a task which can be spread over a year or so, and should culminate in a document stating the overall e-governance context and vision for e-governance in India. This exercise should lay the ground for a comprehensive e-governance policy framework for India.

2. Connecting e-governance to India's governance reform agenda

The single most important aspect of the political examination of the e-governance opportunity spoken of above will be to see the new possibilities opened up by digital technologies in the light of the existing governance reform agenda and efforts in India – for example, in the areas of self governance and decentralisation, Right to Information, citizen centric administration, and community participation and monitoring of government and development activity. For this purpose, while technologists and experts in new information systems and digital work processes may need to present anew set of possibilities, the role of governance and social experts will remain central. A comprehensive governance reform policy framework needs to be developed taking account of the new digital possibilities, connecting them to India's context, while also examining and learning from the international experience in this area. E-governance policy and efforts need to be placed within this overall vision and strategy for governance reform.
3. Putting in place an appropriate institutional framework for leading e-governance in India

Apart from the strategic vision and an overarching policy framework, the nature of the institutional structure for leading and implementing e-governance will determine the outcomes of e-governance in India. If e-governance has to be led by a social- and governance-centric thinking, and not a technology and infrastructure-centric one, it is important to map all the areas of governmental activity implicated in strategising and implementing e-governance and the nature of their inter-relationships; and accordingly provide an appropriate institutional framework for it. Four such activity areas are:

(a) Providing strategic and policy directions for e-governance in India, along with coordination and implementation of e-governance activity, within an overall governance reform framework.

(b) Continuing distributed digitisation activities autonomously taken up by government agencies. This includes issues of basic IT infrastructure, capacity building, simple general e-enabled work processes like e-mailing, e-lists, digital databases etc. This will also include some level of simple automation of work processes. Taking up internal pilot projects to examine and/or demonstrate new possibilities will also come in this category.

(c) Undertaking technology support functions; developing 'common infrastructure' (data centres, connectivity networks etc); giving technology advice and helping in technology capacity building; laying standards; and, providing common technology 'solutions' like some common software and applications, and other similar 'shared services'.

(d) Ensuring appropriate 'IT for people' policies that ensure widespread availability and uptake of IT among the people. It will have components of connectivity, software, hardware, content and capacity building polices for an e-enabled citizenry and society.

In developing countries like India, where a major function of the government is to provide for, ensure and support various social and economic development activities, use of ICTs for Development (which has emerged as a distinct area of theory and practice, called ICTD) itself is an important e-governance space.

All the five (four plus one) areas above require different governance structures. Overall strategic e-governance effort needs to be led by a specialised nodal e-governance agency\(^54\) (NeGA), both at the centre and state levels, anchored in the respective Departments of Administrative Reforms, with close institutional linkages with the office of the Chief Executive (Prime Minister or the Chief Minister).

The technology support functions for e-governance should be led by an 'ICT in Public Sector' division within the Ministry of IT and Telecommunications (MITT). 'ICTs for People' should be another division in this ministry which looks into ensuring universal availability of ICTs for citizens of India.

\(^54\) Such an agency has also been recommended by the National Knowledge Commission in India, http://pib.nic.in/archive/others/2006/may2006/nkc20060509.pdf
This division of the ministry should be separate from the division dealing with IT industry related polices.\(^{55}\)

Coordination of domain department level e-governance activities should be done by appointing a Chief E-Governance Officer (CeGO) (or Chief Information Officers - CIO\(^{56}\)) and a Chief Technology Officer (CTO) for each department, looking after substantive governance process and system issues, and technology issues respectively. A council of all CeGOS/ CIOs and another one of CTOs should connect with the NeGA and 'IT in Public Sector' division of MITT, respectively, to provide inputs into country/state-wide e-governance and technology strategies as well as take strategic guidance.

NeGA should also have an ICTD division which will provide specialised services, including policy inputs and disseminating best practices, in the area of ICTD across India.

### 4. Preparing a roadmap for governance in India

Within the policy framework for e-governance in India discussed above, it will be necessary to develop a comprehensive and detailed roadmap for e-governance in India. Such a roadmap will undertake a detailed examination of all aspects of governmental activity in India, with the distinctly specific context and objectives of each activity, and placing it in the context of the new e-governance possibilities, along with a basic overall consideration of various technology requirements. Since such a roadmap is recommended to be steered by the nodal e-governance agency referred to earlier, some issues to be likely covered by this document are discussed in the following section on the role of NeGA, and a few subsequent sections.

### 5. The role of the Nodal e-Governance Agency (NeGA)

Ideally, as argued earlier, the strategic levels of e-governance activity should be anchored within the framework of general governance reform. In fact, the context and opportunity of new digital possibilities for far-reaching structural changes should be used for setting up an active and well-resourced, high level governance reforms agency, and not really an e-governance agency. This single agency should organise the overall governance reform effort in India, because all reforms - whether in self-governance, RTI, citizen centric administration, community participation or e-governance - are linked and would best be pursued as a concerted activity. In speaking about this agency's e-governance functions we will, for the purpose of this document, continue to use the provisional term NeGA.

---

\(^{55}\) It will be appropriate that the MITT be the first government agency that goes for a restructuring that makes it layered along the logic of the respective constituencies served – public sector, general citizens and the industry rather than of services produced – telecommunication and IT related. This is in keeping with one of the basic organisational restructuring tenets in the digital age. In any case, with the Internet fast emerging as the chief telecommunication infrastructure, it is increasingly difficult to tell the difference between telecom and IT. In times to come things will only move further in this direction.

\(^{56}\) Though widely used in countries who adopted e-governance early, this term is not entirely appropriate since e-governance is much more than information related activities in a department. Now with public information officers in the 'Right to Information' institutional set-up, such a usage will be even less appropriate.
NeGA will act at two levels. It will explore, shape and apply the best e-governance possibilities to the different current areas of governance reforms listed above, in order to strengthen them. It is most likely that, as with most e-governance activity, for the best transformatory impact, this will require considerable re-thinking and restructuring of governance reform activities in each of these areas, and not just uncritical application of ICTs as tools to the existing activities. It is in this context that the imperative arises for reforms to be coordinated through a specialised governance reform agency. Such an institutional framework is required both at the central government and state government levels.

At another level, this agency will envision structural changes going beyond the present reform efforts, but mostly directed by their values. The current efforts at governance reform were devised within the limitations of the present technological or techno-social\textsuperscript{57} possibilities of organisational and social systems built over existing ICTs of paper, pen, print and post. Digital systems open up completely new and previously unthought-of possibilities. It is therefore important that this agency has the expertise to understand, present and build capacity regarding such new possibilities. E-business theory is rich in such possibilities for business. Similar possibilities, which will include some adaptations from e-business theory as well, need to be evolved in all their practical ramifications for e-governance in the context of developing countries like India.

6. Positing the objectives of governance reform against new possibilities of digital systems – Developing the system design principles for e-governance in India

One of the main tasks of the NeGA will be to translate the main values and objectives of existing governance reform efforts - through an understanding of new ICT-based process possibilities - into high level system design principles for system transformation through e-governance in India. These principles should continuously evolve as new governance objectives are articulated, as new techno-social possibilities arise, and as new e-governance process re-engineering possibilities are learnt and established from ongoing e-governance demonstration and pilot projects all over India, as well as from mainstreaming efforts. These system design principles will then inform a strategic framework for implementation of e-governance reform throughout India.

To illustrate the point, some techno-social system/process design possibilities relevant to e-governance that arise from the unique characteristics of the new ICT are: instant information sharing, mass bottom-up communication, dynamic and multi-level networked relationship management, full remote work process view, and from-vertical-to-horizontal restructuring of organisations.

The following are some illustrative system design principles for e-governance restructuring that employ the above system/process redesign possibilities within the normative framework of the key objectives of governance reform in India (the techno-social system redesign possibilities that are employed for each principle are mentioned within brackets):

\textsuperscript{57} This techno-social paradigm is characterised by new social processes that are co-constituted by new technologies, which represent an inter-mediate form between the 'technical' and 'social'. After a certain degree of social appropriation and acceptance/integration, these process appear to be as simply 'social' as all the print technology-based processes appear to us today.
Recommendations for meaningful and successful e-governance in India

- Facilitating decentralisation (instant information flow from across the enterprise to lower levels, process view to higher levels for real time monitoring).
- Empowering frontline staff (same as above).
- Facilitating citizen's right to know (open information architecture, remote full work process view).
- Facilitating citizen participation at all levels of governmental functioning – from policy making to implementation (effectively structured mass bottom-up communication).
- Building open and co-constructed citizen/ community-centric public information systems (same as in d. and e. above).
- Enabling community monitoring (d., e. and f. above).
- Enhancing accountability and grievance redressal in a comprehensive and effective manner (a., d. and e. above).
- Increasing government's capacity to serve through networking and partnerships – developing effective community, civil society and private sector partnerships (dynamic and multi-level networked relationship management).
- Challenging the feudal culture of 'exaggerated hierarchy and deference' within governments (collaborative, non-hierarchical work processes, that can result from openness of digital systems, and wide information and process visibility throughout the enterprise; new electronic means of communication and collaborative work like e-mails and e-lists and greater regular interaction and working with partners outside governments).

**When doing e-governance, think structural change**

Effective transformation in governments will require system-wide structural changes. There are a great number of political difficulties about getting on with such changes in the short-term; not only because governance systems are slow to respond to the needs of any structural changes, but also because the needed and recommended changes are far-reaching and, inter alia, will have a strong impact on the present Westminster model of Indian government system with strong vertical compartmentalisation within the governments, and the corresponding ministry-centered political accountability systems. However greater horizontal sharing of activities and responsibilities is an important, and in some ways, central, aspect of re-governance restructuring and every governance system will have to come to terms with it. Recognising the required trends for transforming Indian governance system to meet its goals effectively and in a timely manner helps to mediate this transition better. Some illustrative directions of e-governance based restructuring are presented below.

**Common service delivery platforms**

An important system redesign opportunity for governments - through vertical integration and horizontal separation based organisational restructuring possibility - is to have a common specialised service delivery agency front-ending for many government agencies that 'produce' various services. This agency can deliver all those services, or parts of services, that are generally of a transactional

58 Reforms in Governance and Administration, http://arc.gov.in/reforms.htm
nature and do not need much domain expertise. (It is a domain and service specific decision as to how much the 'production' and 'delivery' aspects of a governance service can be separated.) The NeGA can take up this work of creating and supporting such a common service delivery agency at the central government level, and corresponding nodal agencies at the state levels can take it up in the states, also exploring the obvious possibility of common delivery channels for both state and central government services. Though fairly advanced models for such agencies are available in some counties (Centrelink\(^{59}\) in Australia, for instance), it will be a complex and drawn out process to move towards such a common service delivery mechanism that does 'substantive' delivery work. In India, many 'single-window' service delivery initiatives have been around for many years, for instance, e-Seva of Andhra Pradesh\(^{60}\), and FRIENDS of Kerala\(^{61}\), and over the last few years many more state governments have set up such common citizen-government interfaces.

Majority of the transactions at these 'delivery centres' consist of utility bill payments, while the remaining mostly concern government records and certificates. A good amount of process restructuring has been taking place to enable single point receipt of applications and delivery of records/ certificates, and it has often resulted in much greater convenience for the citizen, and reduced avenues for corruption. However, the challenges of integrating offline processes (which may still 'expose' citizens to situations involving 'arbitrary' discretion on the part of government servants) with online or 'single-window' processes (that are fairly standardised to remove discretionary elements) are only beginning to be felt strongly. For instance, online registration of First Information Reports, attempted by 'Integrated Community Service Centres' project of Himachal Pradesh\(^{62}\) may look like a simple and straightforward process. However, anyone with basic knowledge of Indian police systems knows that, on one hand, if such a system really works, it will 'transform' Indian policing, and on the other hand, in the short-run to mid-term, the system is as likely to just collapse and not be able to cope, because the Indian policing system, like most other government systems of the country, simply does not have the capacity for even beginning to service all legitimate demands of the citizens. Very similar challenges present themselves in the case of welfare and development delivery services, which are not only very domain-knowledge and personal context heavy in many cases, making it difficult to easily 'standardise' the citizen-government interactions involved, there is a similar lack of capacity to service citizens’ legitimate demands. At present these systems are ‘maintained’ mostly through the expedience of ‘denying' acknowledgement of citizen's service demands. However, with online or single-window systems, this may not remain possible, presenting a very complex challenge for the entire governance system.

Integration of work processes across different departments and agencies to give a really joined-up response to citizen's service requirements is also non-existent, and the challenges of such integration have not even begun to be explored. Going beyond utility bill payments and delivering government records and certificates in the service delivery area will apparently require a major ‘transformation’ in

\(^{59}\)http://www.centrelink.gov.au/
\(^{60}\)http://www.westgodavari.org/
\(^{61}\)http://www.friendscentre.net/
\(^{62}\)Presentation of the project details at the 2006 review workshop of the 'ICTD' project funded by UNDP and Government of India, and managed by the National Institute for Smart Government.
our e-governance thinking and practices, and is unlikely to be merely the automatic next step in e-governance's evolution in India.

Meanwhile, most e-governance efforts concerning service delivery today are devoted almost entirely to extending reach, attempting to adopt simplistic solutions in the process rather than looking into these real governance challenges. For increasing reach, the main process redesign efforts are of 'simplifying' and 'standardising' citizen-government interaction-instances, and enabling use of market forces for delivery, for which purpose, as far as possible, to monetise service delivery. We have seen that this kind of thinking is at the heart of India's primary e-governance programme, the CSCs of NeGP, which is by default setting the values, standards and guidelines for e-governance in the country. The implications for such standardisation and monetisation of citizen-government interactions through these 'common delivery systems' is not critically examined; for instance, for welfare and development services for disadvantaged people who have little money to pay for services on one hand, and who require greater personalised attention and assistance on the other, which raises the cost of the transaction for the private intermediary. A really people-centric e-governance will need to adopt a much more nuanced view of the e-governance opportunity in common delivery platforms considering the full range of key governance imperatives. Greater reach and convenience are just two such imperatives, but equally, or more important are the issues of inclusion, welfare-ism, social justice, equity and social development. Such a holistic governance issues-centric orientation requires a strategic approach which is not technology-led and market ideology dominated. It is therefore important that an overall framework of guidelines and a set of process/system redesign possibilities are developed collaboratively by NeGA, which then becomes the basis of developing common e-enabled delivery platforms and/or agencies in India.

Such a common service delivery agency has many advantages for improving our governance system: (1) it puts a layer between service providers and 'consumers', a structure that can be used for greatly enhancing accountability and performance monitoring; (2) it can specialise in requirements of citizen interaction, and thus greatly facilitate the process, both in terms of efficiency for the governments, and convenience of the citizens; (3) it can greatly increase reach of service delivery and reduce costs through the benefit of shared infrastructure and facilities.

A shared culture of citizen centric orientation – for instance, working through a common service delivery agency described above - requires a 'joined-up government'63 with high degree of structured collaboration between different government departments to fulfill specific citizen needs. A common service delivery agency project will trigger activity towards such sharing and collaboration, and is a good way to start moving in this direction of a joined-up government. The nodal agency will have to work actively towards developing system possibilities as well as incentives for departments and agencies to join-up for a common response to citizen's needs.

63 The phrase is most commonly used in UK's e-governance efforts.

IT for Change, May 2008
The modern nation state, which emerged out of feudal political systems, is built on strong notions of a centralised control. Such control was found necessary to provide some degree of coherence, integrity and 'security' to a political system that increasingly pervaded greater and greater aspects of the society over a relatively large geographical area. New ICT-based systems can allow meeting the objectives of such coherence and integrity while still enabling greater power' of self-governance at the edges of the system. The dual imperatives involved in moving towards a decentralised political system are: (1) affording all the centralised control that is legitimately needed in the system; (2) providing capacity and resources at the 'local level' for self-governance, including access to system-wide information necessary for decision-making. ICT-based systems can meet the former imperative in the same manner as multinational corporations today effortlessly manage globally distributed activities. And the latter requirement is met by building information systems and work processes that empower local levels both by building capacity, and by providing access to vital information resources necessary for local decision making.

Box 10: ICTs for self governance – a governance system driven from the 'edges'

DRISTI (Decentralised Rural Information Services and Technology Initiatives) project of the West Bengal State Rural Development Agency is a comprehensive digital support system for self governance institutions. It works both to: (1) provide system-wide information to the self-governance tiers, enabling them to take informed decisions, and (2) to ensure capacity building and resource support.

The state's Department of Panchayat and Rural Development has developed a comprehensive digital household information system with strong provisions of public scrutiny and correction, enabled by its open online availability at the panchayat level, where computers have been provided. Panchayats are also able to see the basis of decisions and allocations as per various schemes, and these decisions are made at the block level now, as per actual number of beneficiaries reflected in the data, rather than the earlier processes of district- and block-wise quota based on outdated data, which always left a large number of genuine beneficiaries excluded. In fact, use of this data for generating statistics over any number of different variables has allowed appropriation of new welfare schemes that target different kinds of vulnerabilities. Further, since a full view of all data fields for each individual is available at the panchayat levels, data correction and validation is quite easy. The panchayats also have a clearer view of the data about their area to enable informed understating and decision making. This data is regularly validated at the village community levels.

"Block maps and Gram Panchayat Maps showing all the detail attributes is now available at Block, Gram Panchayat & also through Departmental Web Site – www.wbprd.nic.in. This will support the decentralised planning and implementation process at the village, gram panchayat and panchayat

---

64 Control from the edges is a key design principle of the Internet. The socio-technical paradigm of the Internet can be employed for developing social models with greater control from the edges instead of centralising control.
Recommendations for meaningful and successful e-governance in India

The people's representatives at gram panchayat and panchayat samiti will be able to plan for the local area at ease with the help of the GIS based maps prepared for the two levels. Another very effective part of DRISTI is the completely digital panchayat accounting system, and digitisation for issual of most panchayat level certificates. Such an accounting system greatly capacitates panchayat offices for complex accounting and audit requirements of managing funds from different government schemes, and also enables easy remote monitoring by higher levels. These features together greatly reduce the 'fiscal risk' that is seen as associated with higher degrees of decentralisation and movement of most powers to self-governance levels, consequently enabling these processes greatly.

Issuing regular records and certificates to citizens through a digital system both reduces the amount of human intensive work otherwise required for this, while ensuring higher levels of transparency and accountability. Anchoring such systems early at the panchayat level itself sets up a very good traction and momentum for system-wide e-governance in India. Starting at the most 'difficult' levels is therefore often a better strategy rather than starting at the 'easiest' levels. And such bottom-up e-governance designs also ensures that e-governance helps empower people and levels of governance closest to them, rather than result in further centralising power.

Before becoming citizen centric, governments will have to become frontline staff-centric – The blind-spot of the Indian governance reform

Political decentralisation has been articulated as a major governance reform priority in India, but unfortunately not much is spoken about bureaucratic decentralisation. It is difficult for a governance system to become citizen centric before it becomes frontline staff-centric, a need that is widely understood and articulated in e-governance strategies worldwide. While it is important that the government's centralised institutions cede power to the people and local governance systems, it is unlikely that the spirit of this political imperative can take strong roots without power getting shifted within government systems to lower field levels. The main problem in doing this has been the difficult issue of ensuring accountability from a very large and very distributed government machinery. However, no meaningful governance reform can be done by bypassing the frontline staff of the governments, and this imperative should be centrally articulated in all e-governance strategies and activity. The effort should be two-fold, to obtain greater accountability through ICT-based systems that make managing distributed activities much more effective; while at the same time using ICTs to empower the frontline staff, with capacity and resources, including vital information resources.

Bureaucratic decentralisation requires empowering the front-end staff to make informed decisions, while providing for effective ex ante monitoring for performance, financial and policy controls to the higher levels. Work processes reengineering using ICTs can easily meet all these requirements.

---

65 From the project’s annual report submitted to National Institute for Smart Government.
Empowerment of the frontline staff using this opportunity should one of the cardinal pillars of governance reform through e-governance. Aimed chiefly at combating corruption, many governance reforms at present seek to remove as much discretion from frontline governance processes as possible. While this may have some positive impact, reducing discretion has the effect of making governance delivery highly inflexible, which is itself a big problem with Indian governance systems. ICT-based system redesigning can improve the effectiveness of frontline staff, allowing them to make flexible decisions as per citizen's and community's context – which is a central requirement of citizen centric governance – while at the same time improving the monitoring of the performance as well as integrity of frontline staff.

**An e-enabled push model for actualising RTI**

ICT-based work processes enable full 'process view to anyone, anytime and from any place, forming the basis of developing open work processes for governments in full public view. Unless there is a clear and strong justification to the contrary, this will represent the real and full realisation of the citizen's Right to Information (RTI). Such work process design open to public view - i.e., in the public domain - should become a central system principle for e-governance based system redesigning. However, it is not enough that the present work processes are made visible to the citizens as they exist, whereby the information processes connected with these work processes are mostly oriented for effective management from the top, taking the shape of MIS to the public audit systems, which itself are very viscous and opaque spaces with little accountability of their own. The work processes should, instead, now be redesigned to 'primarily' generate information oriented to citizen's point of view, and this information should be presented and made accessible in the manner that most suits the citizen and the community.

RTI in its true meaning does not only require access to all public information, but also the full ownership of it, and the right to validate and co-construct it.  This requires building of open and co-constructed public information systems – which is an important possibility of ICT-based systems – that are oriented to the citizens and the community and not to the government departments, as is mostly the case with these systems at present. These new public information systems will be dynamically co-constructed by the community – as is already happening in some ICTD and e-governance initiatives, some led by NGOs and others by government departments (see box below). Appropriate methods of validation and legitimisation will have to be developed for these new public information systems, and this is an area in which a lot of exciting research is being done, and new practices are shaping up around the world.

The genesis of the RTI movement in India in the activities of Mazdoor Kisan Shakti Sangathan in Rajasthan points to this fuller implications of RTI, whereby information kept by labourers was used to challenge 'official' information that was manipulated to cheat them out of their rightful wages.
Box 11: Digital public information systems – 'Owning' the crucial public information on which much governance activity is based

Abhiyan is a network of many NGOs in the Kutch district of Gujarat, which are involved in areas of local development. Its *setu* centres help coordinate activities amongst these NGOs and with government agencies, while also providing important information to people and local development workers. Over the last two years, Abhiyan has set up computer-enabled Mahiti Centres to assist in their development work. Abhiyan develops local information systems, which include people and resource mapping, done in a participatory way, which are used for micro-planning. Abhiyan's information system uses government data, information produced by other development agencies, as well as participatory data facilitated by its workers, and combines them to produce dynamically co-constructed local development information systems. Under one scheme, villages are given some untied funds and encouraged to develop their own plan for spending it using data available through these information systems. More significantly, government agencies have often relied on these participatory information systems to target their schemes, especially when they do not have the required information, and Abhiyan's composite information systems are readily available.

This provides some pointers to possibilities for co-constructed open public information systems which completely changes the concept of 'public information systems' as is understood today. Significantly, within governments there is an increasing tendency to use digital information systems across different departments, while earlier most of them did this activity in silos, and as they so get used they get changed or co-constructed in many creative ways, accumulating increasingly greater 'value'.

Public information agency – A new role and orientation

In another important possibility for horizontal structural separation and vertical 'collapsing', the requirements of actualising the RTI as discussed above, through a truly open and participative public information system that is community-centric, require a specialised public information agency that provides a 'joined up' information system across all areas of the government's functioning. Imperatives for such an specialised agency come from: (1) the fact that public information, in the new ICT-enabled dynamic information ecology, is both used and constructed simultaneously across the full range of government's activity, and can no longer be maintained in silos, and (2) that increasingly, information based governmental processes, in their new dynamism and richness, requires specialised attention, expertise and approach.

Such an agency should be built over the existing information departments (whose present activities have lost much significance in the new ICT-enabled information ecology) within governments, and connect, on one hand, with the RTI institutional infrastructure that is emerging within each department and agency, and on the other with 'information' and 'data' producing agencies, like statistical and planning divisions. The nature of production, owning, sharing, as well as delivering information has

---

68 Information collected through field visits.
Recommendations for meaningful and successful e-governance in India

completely changed in an ICT-dominated ecology, and these are today both much more interrelated and much more dynamic activities. All government agencies dealing with these activities, including the information departments have to completely re-invent themselves for this purpose, and become more joined-up, as they become more community-centric and community-participative. The meaning of 'public information' changes from 'information designed for public consumption' to 'information belonging to the public, developed collaboratively, and made available to all'.

It should also be the responsibility of this specialised public information agency to open up ICT-based community points-of-presence for both making information available, as well as allowing public participation in developing this information. These points-of-presence can be shared with those of the common service delivery agency in remote areas, without compromising on the values and objectives of public ownership of public information systems. Many ICTD and e-governance projects already have community telecentre where such 'public information' is made available.

**Ensuring popular participation in governments beyond the election time**

Participation needs to be an important system design principle for all e-governance reforms. Co-constructed and open public information systems of the kind discussed above allows communities to participate in decentralised planning processes. Policy level participation is also facilitated by many ICT-enabled means, and there are already some good examples of this all across the world. These possibilities should become a part of planning and policy making processes in the new governance system design. Unfortunately, for all the talk of e-governance, hardly any government department has used simple and easily available ICT tools for policy, plan or programme related inputs, and this, paradoxically, is equally true for e-governance polices and programmes. As long as basic attitude to openness and participation does not change, simply using ICTs is unlikely to produce any governance reform. NeGA's guidelines must make it mandatory to consider incorporating these participation tools in any e-governance redesigning and restructuring.

**A grievance redressal system that works – Separating a layer of citizen centric system of accountability from execution functions**

A composite grievance redressal system should also be separated as a horizontal layer across government departments, since, as discussed earlier, such horizontal separation and vertical integration is facilitated through ICT-based system redesigning. Such a redressal system can converge with and under the Lokpal's office, connecting with department-based internal systems, and provide an effective means of governance system-wide monitoring and grievance redressal, as well as checking corruption, with a clear understanding that there is a strong connection among all these elements. A major problem with present redressal systems and anti-corruption systems is that the internal systems within an agency are too close to the 'action' to be able to have any worthwhile reliability, and outside systems are too 'distant' to be able to function with any degree of effectiveness without the 'unreliable' dependence on internal systems, or do anything other than ad hoc hit-and-run activity, helping some

---

69 Lokpal in India is the equivalent of 'ombudsman office' in many countries of the North, and was recommended by the First Administrative Reforms Commission

---

IT for Change, May 2008
fortunate few citizens, and 'catching' some unfortunate few corrupt public servants, while the mainstream systems go on unchanged as ever.

**ICTs for increasing government's capacity to serve – Networks and partnerships oriented governance**

ICT-based systems are very useful for managing partnership and networks – on the same principles that multi-national companies manage their globally distributed activities, including outsourced ones. This enables governments to structure more viable and effective partnerships, internally within the government, and outside - with communities, NGOs, and business entities - which is an opportunity that should be explored at all possible points in governance system redesigning. However, there are important governance, organisational and behavioural issues implicated in developing effective partnerships, at the scale and complexity that we may be looking at in the digital age, and NeGA will need to extensively study of these factors and give necessary detailed guidelines.

Such new partnerships can improve efficiency and increase the capacity of the state to fulfill its full mandate with respect to all citizens of India. Without compromising on its full range of responsibilities, in many areas, the government's resources can get used more effectively to facilitate community based efforts – producing larger and better net outcomes, as well as insuring greater participation in governance. A recent report of UNDESA, 'From E-government to Connected Government', has observed, "Connected or networked governance revolves around governmental collective action to advance the public good by engaging the creative efforts of all segments of society. It is about influencing the strategic actions of other stakeholders".70

---

**Box 12: ICTs for networked governance – Most effective use of public resource**

The e-Krishi project of Kerala provides an e-enabled platform for farmers to connect to buyers of agriculture produce, as well as to government's support services. It encourages farmers to organise into bhoomi (land) clubs to facilitate such market linkages in a manner that is empowering to the primary producers. So, rather than get into direct procurement role, which does have important relevance in some other contexts, the Kerala government through e-Krishi uses the possibilities opened by digitally-enabled systems to facilitate collaborative processes on one side, and market forces on the other. The e-enabled system aims to get the maximum benefit to the farmers, leveraging the best attributes of government, community and private sectors, and avoiding the respective pitfalls: of inefficiency, of poor organisational capacity, and tendency towards exploitative greed.

The project is also called 'Market driven Agricultural Initiative through IT-enabled Agri Business Centres' and seeks to "address the existing gap in agriculture information flow and transaction management....The project envisages facilitating and enabling farmers and other Stakeholders through Agri Business Centres to interact with Agricultural Service Providers in the Private, Government and

---


*IT for Change, May 2008*
From strategic levels to implementation – Getting to the brass tacks

A centralised overall vision and strategy only creates an enabling environment and is not meant to constrain bottom-up initiatives and experiments in the area of e-governance, nor encroach over the mandate and responsibility of state governments and different departments to conceptualise and steer e-governance reforms in their areas of work. As the nodal agency, NeGA should develop a framework for encouraging and supporting demonstration and pilot projects, as well as mainstreamed activities of department-based system reforms, and systematically capture the lessons learnt. However, these activities have shown a strong need for overall e-governance related help, advice and guidelines, and these should be provided by the nodal agency, and its equivalent at state levels, rather than by the IT departments, who should restrict to the provision of technology guidance and common infrastructure.

The implementation framework – Clear areas of competencies, with effective means of collaboration

The nodal agency may itself have to take up some direct system redesign and implementation work in some areas like generic government office work processes. Some technology intensive project like common citizen identity may best be handled by IT departments. However, most e-governance planning and activity should be handled largely from within the respective departments relying on the general frameworks for e-governance provided by the nodal agency. Specific overall system design related or issue-based help and advice may also be sought from this agency, for which there has to be clear processes and resources in place. Advice of IT departments on technology issues would also be often required, which should be appropriately facilitated. An adequate framework for such consultations and collaboration, with clearly marked out spheres of competencies should be laid out.

IT departments should do the important IT work that enables e-governance

The IT (and telecommunications) departments will be expected to carry out projects of building common technical infrastructure to make e-governance possible. This includes logical infrastructure – common open interoperability standards; soft infrastructure like software platforms, security applications, networking platforms, data storage; and hard infrastructure like providing actual connectivity, including to the public at large, the interests of whom, and the need to ‘connect’ to whom, is at the very heart of governance re-structuring. This however does not mean that government citizen interactions are limited to, or even mostly conducted through, a digital interface, when we speak of e-governance. ICT-based systems, in a variety of ways, merely enable more effective governance systems, and community level government-citizen/ community interactions that are empowering for the citizen. Effective access to ICTs and public information, and appropriate systems for participation and service delivery built over ICTs, at the local community level in every part of the country, should be seen as a core responsibility of the governments. We have discussed earlier that IT departments have

---

71 http://210.212.239.29:8888/site/about/index.html
two different, though connected tasks of 'providing IT support for the public sector' and 'reaching ICTs to people', both of which are central to realising any e-governance possibility.

When ICTs are acknowledged as a vital and basic e-governance infrastructure, there will arise important implications for ICT policies, since this positioning provides the imperative and the basis for adopting a public goods approach to ICT infrastructure. Consequently, telecommunication departments need to prioritise infrastructure development in all parts of the country not only as an important economic infrastructure, as it is primarily seen today, but also as necessary governance and developmental infrastructure.

Increasingly, connectivity networks are becoming more of a localised activity (community networks are becoming popular all over the world\textsuperscript{72}), and not any more only the behemoth centralised telephone and telegraph networks of the past decades. This seen along with the new recognition of their role as important governance and developmental infrastructure, whereas governance and development are both now universally recognised as local-community anchored activities, makes it necessary to examine the possibility of shifting some or most telecom related responsibilities and powers to state and local governments, as also a great degree of deregulation of localised connectivity networks. More than ICT policies influencing governance, as apparently happens today in ways we have discussed earlier, it is governance imperatives that should be influencing ICT policies more.

**Core governance activities - The site of real e-governance**

E-governance plans should encourage pilots and demonstration projects, since innovation is at the very core of new ICT-based systems. Meanwhile, every department and agency should draw up its overall e-governance strategic vision, which lays out overall system goals with sufficient flexibility of innovation, and iterative changes. These governance sub-system design principles (sub-system, in relation to overall Indian governance system) will be informed by the common strategic framework develop by the nodal agency, but be contextual to the objectives and activities of the concerned department. Ideally, e-governance system designs should be developed for the complete departmental activity rather than as a part of it. However, in cases where the latter is necessary, the system design should still be built at the highest strategic levels within the department. It should not be done through a perfunctory system requirement document developed by the technology staff, and/or the private sector consultant, who too are mostly from technology companies.

E-governance initiatives should prioritise governance system objectives and domain knowledge over knowledge of technical system designing and development, and for this, as required, assistance and guidance may be sought from the nodal e-governance agency. At the same time care should be taken in choosing appropriate external consultants. The expertise needs for process redesign to maximise governance system objectives is very different from technology expertise. In most cases, however this difference is not appreciated and private consultants, mostly technology companies, are given the task to provide both. Apart from the fact that there is little real governance expertise in technology

\textsuperscript{72} For instance see 'Community based networks and innovative technologies – New Models to serve and empower the poor', by Sean O Siochru and Bruce Girald, UNDP. Available at: http://propoor-ict.net/content/pdfs/Community_Nets.pdf
companies, there is a significant conflict of interest involved in taking their advice, especially if the same company also provides technology for the e-governance project.

**E-governance restructuring as co-constructing government systems - If participation is important in governance, it is more important in constructing governance processes**

Every e-governance software and application changes governmental 'business' processes, and it is important that such an activity has the legitimacy of participatory decision making, as well as other kinds of political supervision. It is especially important that people and agencies involved with governance and administration reform within governments and in the civil society have an opportunity to examine, comment upon and participate in this crucial activity of governmental process design. The concern of 'undue political interference' among implementers, leading to a stalling of reform in case the consultation is opened too wide may be true to some extent; but the opposite fear that governance process reform may not reflect the priorities of governance reform as collectively understood, and as reflected in the above suggested set of high-level system design, is as valid a concern, and of greater significance.

Such open review and consultations should be carried on throughout the process of development, and in the final stage before adoption, because often applications and system designs may go through significant changes during the phase of development. These changes themselves need to be subject to the scrutiny of stakeholders for adherence of principles and objectives set up for governance reform. Such e-governance process redesign should be treated on par with democratic and participatory requirements of policy development, since both have similar political significance as explained. In India, e-governance is often presented as primarily requiring project management competencies, and the NeGP also shows some strong such proclivities, as discussed in Part 1 of the document. This contributes to insulating e-governance from political and democratic examination, a tendency that should be reversed, while the political nature of e-governance reforms should be strongly asserted.

**Box 13: Technology policy options for more participatory e-governance**

Through e-governance we don't only bring the characteristics of efficiency etc. of the ICTs to governance, we should also being the characteristics of democratic governance - like collaborative decision-making and work, and the shared and open nature of the 'commons' and 'public' - to ICTs. This will mean that e-governance activities support and adopt such technology models that are based on such values. There is already a strong current in the technology domain of employing open ecosystem ICT models which challenge closed, propriety systems. Open Source software, open and shared content, and 'commons' based connectivity systems are components of such an open ICT ecology. Adopting these models for e-governance increases the participatory and democratic nature of governance processes, rather than possibly reducing it, especially when over-reliance on closed and propriety models, and market-centred approaches, become the centerpieces of e-governance strategy and implementation. We have earlier, in Part 1 of this document, discussed some such tendencies in many of the current e-governance activities in India, which would have been significantly different if e-governance policy and activity itself was more participative.
**ICTs are essentially system technologies, and are best leveraged through an end-to-end systemic change approach at implementation levels**

As mentioned earlier, while demonstration and pilot projects are necessary - and they can only be taken up without affecting the mainstream departmental activities - once enough learning has been built, it should be used for putting together a full system redesign, as a higher level of e-governance activity. After testing parts of this new system, or the whole of it, in a controlled manner, the final going for a 'system shift' mostly requires a complex full 'switch-over' operation. This mostly needs to be backed with statutory provisions which need to be worked over with care, and political astuteness. The main objective of systemic governance reforms is to plug gaps in the existing systems which allows for leakages, corruption and inefficiencies, as well as poor participation. And all of these have strong vested interests associated with them. It is the experience of most successful e-governance projects that have been able to make systemic changes that complete one time switch over, rather than running parallel process - old and new - allows anchoring the new systems successfully.

It is important to clarify that a ‘system switchover’ does not mean a switch over to new 'digital systems' from old 'manual systems'. Such a wrong reading of ‘system change’ involved in e-governance plagues both many technology-led e-governance initiatives, and, correspondingly, causes fears and non-engagement of many actors with non-technology background interested in governance reform. A system change here means a switch over from an old ineffective governance system which we all wish to change, to a new one which incorporates some digital processes, as appropriate, to make the whole system more effective. The new system will still overwhelmingly consist of non-digital work processes, which however may be considerably changed for more effectiveness, through employment of new system redesign possibilities.

The above imperative of 'system switchover' requires that the new system has end-to-end capabilities to account for all processes involved in the implicated activities. Any loose ends will get used to subvert the 'new' system and continue existing corrupt and/or inefficient practice, perhaps with some modifications and adaptations. This requires intensive effort for system designing, anchored at the highest strategic level of the concerned department, which provides a complete view and understanding of the complexities of the activities which are sought to be mapped on the new system. This level also has the full responsibility for all aspects of the implicated governance activities and can be expected to account for all issues, have the required authority to effect change, and be committed to the complete success of the effort. A whole system change, comprehensively covering all work processes end-to-end, will, for instance, require complete process engineering around ICT-based systems. This, for instance, may involve integration of 'offline' processes like physical and financial activity/ progress, and work flow/ transactions with (automated) 'online' processes of information and report generation. In such a system, information systems automatically match physical systems, and thus processes of efficiency, transparency and accountability, inherent in, or easily obtained through, digital information systems, can simultaneously be imposed on the complete system of activities with greatly reduced chances of vested interests being able to exploit gaps and rig the system to their advantage. Such a

---

73 Karnataka's successful Bhoomi project (http://www.revdept-01.kar.nic.in/) has some important lessons for how to make such 'full system switchover' at one go.
comprehensive interlinked system redesign is important to achieve most system objective sought from e-governance reform.

**Box 14: E-governing the largest social welfare scheme ever in India – Some key lessons on how to reform Indian governance**

The complete operation of National Rural Employment Guarantee Programme (NREGP) in three districts of Andhra Pradesh is backed by 'end-to-end' digital systems. Every single transaction - every transfer of funds, every job card made, every work allocation, every payment, the full muster roll and each wage payment - gets recorded on the system the moment it is completed. In fact, it is not possible to do any of these transactions without the digital system recording it and projecting it in the public domain for anyone to see, anywhere, anytime. Every work process is in full public view, ensuring complete transparency and accountability, which represents the push model of RTI that has been alluded to earlier in this document.

The Principal Secretary in-charge, Mr. K. Raju, who conceived and developed the project along with an internal team, with no private sector consultancy, has an interesting way of describing the value that this pioneering e-governance project provides. He picks from a statement attributed to an ex-Indian Prime Minister - oft quoted in describing the state of India's governance systems leakages - that only about fifteen percent of welfare allocations actually reach the intended beneficiaries. He points to the monitor in front of him with the NREGP digital system open through a public domain website and says that each *paisa* of the more than a thousand crores of the scheme funds spent in these three districts can be traced to its recipient. And this can be seen by anyone over Internet. The wages get transferred directly to each labourer's bank account. All labourers have been provided accounts in local post offices. He says that it may be possible that some funds are still misused but now at least anyone can raise the objection that, for instance, the said bags of cement listed in contractor's bill of costs were never bought or used; or that the said wages shown to be paid to a particular individual were never paid. All work processes, and complete information of government's work, are now available for the full view of the citizen – the real owner of governance processes and activities – who can then assert her ownership by using this information and seeking accountability.

Since the governance system around implementation of NREGP in these three districts is not designed by any technology-enthusiasts out to prove technology, but by persons rooted in the governance needs and contexts of India, it does not leave the issue of community participation to just putting up enabling digital 'process view' affordances. It goes much beyond that, and proactively engages the community through partnerships with NGOs and CBOs. Members of the CBO Mazdoor Kisan Shakti Sangathan work along with the government to conduct 'social audits' in the villages where information gathered through people's testimonies is matched with that of official records taken from the website. Interestingly, this 'people's version' of the 'information' is also put up on NREGP's website as 'social audit reports', alongside the information generated by government's systems. This is an outstanding

---

74 The information on the project is largely based on a interview with Mr. Raju. Many elements in this report also take liberally from our discussions regarding this project.

75 Community based organisations.

*IT for Change, May 2008*
example of co-construction of what may be called as 'public information', thereby getting the citizens directly involved in ownership of governance processes.

The system, while empowering the citizens – as beneficiaries and owners of the government's work – also enables self-governance bodies to run the scheme effectively. It provides them across-the-system view, all the needed information for implementation, transparent and accountable work processes to ensure regular, and 'no-leakage', transfer of funds, access to all guidelines etc, automatic alert/rejection by the system if some guidelines are not met, and automatic keeping of all records and sending reports, instead of necessitating a lot of time in manual record-keeping.

The empowerment of the frontline staff though provision of all needed information for decision-making, resource support for building capacity, and great amount of time-saving in not having to perennially enter records and send reports, is also obvious, and strongly intended by the system. There are, in fact, no reports sent in the whole programme as all information is online, and the system allows for generation of any kind of report at anytime, by anyone. Given the fact that a major part of frontline staff's time and energies in India are spent in making and sending various kinds of reports, one can see great possibilities of some key structural shifts that such digitally-enabled systems can trigger in our governance systems.

While at present the physical system-digital system interface is at the block levels, Mr. Raju says that he looks forward to making this happen at the village level itself, further empowering the people and the local self governance levels. The only issue here is about availability of connectivity at the village level, whose provision he is hopeful of. With such a revolutionary welfare programme being managed in such a 'transformative' manner, producing enormous 'value', it is obvious that the governance and development implication of ICT policies, including, but not limited to, connectivity policies, should be prioritised. Also the 'cost factor' of such basic ICT provision at the local levels should be seen in terms of the across-the-system value that it enables.

NREGP e-governance project of Andhra Pradesh\(^\text{76}\) illustrates most of the points made in this document about meaningful and successful e-governance in India. Since an elaborate description of this is not possible here, a broad brushstroke of the issues has been provided. The project dispels the notion that e-governance is a luxury for India with such high levels of poverty and backwardness, and that it can cause further 'exclusions' of the disadvantaged people. The various new 'inclusions' that this project enables are very clear. It also illustrates that e-governance is not about every citizen being computer literate and computer-enabled, which is a very widespread misgiving.

The project meets almost all values and objectives of governance reform in India, which we argued should guide system designs for e-governance. It brings all work processes in complete public view (public domain), thereby actualising the real spirit of RTI. All public information is not only open to the public but the system provides provision for public to validate or challenge this information. The social audit reports are also available on the NREGP website itself. Community monitoring is therefore enabled through built in facilities in the governance system – both by providing public information

---

\(^\text{76}\) [http://nrega.ap.gov.in/Nregs/Home_eng.jsp](http://nrega.ap.gov.in/Nregs/Home_eng.jsp)
Recommendations for meaningful and successful e-governance in India

readily that can be examined by the 'public' as well as listing the social audit report on the website itself.

We have also seen that the project empowers both self governance bodies and the frontline staff, through information provision and resource support, as well as releasing their time from drudgery of manual recording and sending of reports.

And, it is an end-to-end system which leaves few gaps, where the digital part of the system is not in automatic exact sync with the physical system, implying that the natural transparency and accountability enforcing power of a digital system with most of the work processes in public view (public domain), is at once extended throughout the system. Mr. Raju says that he did mull over whether to run parallel manual and digital systems so that there could be a soft run and testing phase of the system; later deciding against it. NREGP's first work order and the first pay slip in these three districts were issued through the digital system, with no provision of doing it any other way. And he is glad he took this decision. The end-to-end system, established from the very beginning, did not allow vested interests to build any 'business models' around any vulnerabilities and leakages in the system. As a result 'professional' contractors and brokers who mostly run such public work programmes in India have largely just stayed away from the NREGP in these districts, and there is both full realisation of wages to the labourers, and full value of public work done through local village level 'genuine' contractors.

The project design was led and fully owned by government staff of the rural development department, and every phase of the software developed by a private vendor thoroughly reviewed over long sessions. The department solicited advice and partnership of the CBO that has been most active in India on RTI and right to livelihood issues. After all, it was not to be a ‘toy’ demonstration or pilot project, the department had put all its stake in implementing the most ambitious welfare scheme in India ever, through successful operation of the new digitally-enabled system. This was the single most important element in our view for such a pioneering and successful e-governance project.