Abstract

E-government can help improve governance and service delivery by refocusing consideration of the purposes and tools of government. However, E-government initiatives pose challenging questions of management, especially about coordination in government and the design of services for citizens. Progress towards implementing e-government raises critical questions about preferred styles of governance and about how governments relate to citizens. At present, interactions between citizens, the institutions of government and Information and Communications technology raise more agendas than governments can handle. However, trying to find ways through these agendas is to confront questions of wide interest to citizens. At the very least, e-government helps improve governance and services by asking questions.

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IMPROVING GOVERNANCE AND SERVICES: CAN E-GOVERNMENT HELP?

INTRODUCTION

This paper argues that:

- E-government can help improve governance and service delivery by refocusing consideration of the purposes and tools of government
- E-government initiatives pose challenging questions of management, especially about coordination in government and the design of services for citizens
- Progress towards implementing e-government raises critical questions about preferred styles of governance and about how governments relate to citizens.

Since the late 1990s the prospect of using Information and Communication Technologies (ICTs) to improve effectiveness, fairness and accountability in government has attracted widespread enthusiasm. However early hopes that e-initiatives would bypass intractable questions of government organisation and transform citizen experience of the delivery of public services have given way to more modest claims.

At the same time, thinking about how to use ICTs most effectively in government has generated widening questions about what governments should try to do and how they should do it. As Jane Fountain (2001) has argued, e-initiatives reconfigure bureaucracy and disturb settled understandings about politics and the nature of the state.

ICTs open up diverse patterns of personal and group interaction. But managing ICT infrastructure and applications to provide better government demands coordination. Within government, e-government initiatives pose sharp questions about the roles and capabilities of the executive. They challenge the executive to:

- Organise itself for integrated policy making and management
- Respond to what citizens actually need
- Manage multilayered and reciprocal interactions between government organisations and technology.

These challenges are linked. But linking them in a ‘whole of government’ agenda puts large tests on executive capability.

A recent study by the OECD sets out key dimensions of the challenge. Key questions include (OECD 2003:11):

How to collaborate more effectively across agencies to address complex, shared problems; how to enhance customer focus; and how to build relationships with private sector partners.

Such questions lead direct to a familiar dilemma (OECD 2003: 15):

How to capture the benefits of coordinated action and shared approaches while maintaining individual agency responsibility and accountability for operations and results.

Many governments have gone to great lengths to craft pluralist or decentralised strategies for improvement. In such models, connections between diverse initiatives depend on consultation and negotiation. Many large and complex businesses have followed similar paths.

However, the opportunity costs of e-initiatives are high. Such initiatives need to provide value. For governments e-initiatives need to provide policy, management and service outcomes that citizens value. The concept of public value provides a useful framework for making such assessments.
(Moore 1995; Kelly and Muers 2002; Stoker 2003; UN 2003; Smith 2004). For businesses they need to grow the business, build shareholder value or maximise dividends. This has led to steadily more assertive rethinking of the role of coordinating and framework setting bodies.

Themes of decentralisation, devolution and differentiation associated with New Public Management, neo liberal or Washington Consensus agendas, which had a pervasive influence in the 1990s, are critically reconsidered. The OECD e-government project team (2003: 99) sets out a long list of benefits of central coordination. For the private sector Nicholas Carr argues controversially that similar considerations apply (2004: 12):

Hierarchies…may outperform markets when it comes to integrating complex information systems, leading to a re-emergence of the vertically integrated company.

In a major study of IT governance Peter Weill and Jeanne Ross (2004) go further. They concentrate on the private sector but include significant public sector cases. They set out a concept of IT governance in which decision rights about IT are carefully allocated to ensure that business strategies drive IT investments. They propose that as dependence on IT spreads throughout organisations, IT governance increases in importance. In words that mirror the phrasing of the OECD team, Weill and Ross argue that the task of effective governance is to handle effectively (2004: 236):

A longtime management paradox—encouraging and leveraging the ingenuity of all the enterprise’s people while ensuring compliance with the overall vision and principles.

Governments introducing e-initiatives thus face contradictory pressures. Making e-government initiatives work demands significant resources. E-initiatives are hungry for political, organisational, human and financial capital. Investments and potential gains are large. But to date, actual gains, however measured, are modest. Further, the price of making even modest gains is to open up controversial agendas of governance. Central coordination is back. And it is joined by demands for more responsive and participative government.

The propositions outlined above provide a framework for exploring these issues. Examples will be drawn from international surveys of e-government (OECD 2003; UN 2003; Yong 2003) and from the state of Victoria and the federal government in Australia.

REFOCUSBING THE PURPOSES AND TOOLS OF GOVERNMENT

E-government initiatives focus attention on the long term impacts of the interaction of technology and organisations. E-government is not just about using ICTs throughout the institutions and operations of government. It is also about how organisations in government perceive and apply technology. The reciprocal relations between technology and organisations (Fountain 2001; Bellamy 2002) drive long term change.

Ambitions for e-initiatives in government are large. A recent UN survey argued that (UN 2003: 182):

E-government is about opportunity. Opportunity for the public sector to reform to achieve greater efficiency and efficacy. Opportunity to reduce costs and increase services to the society. Opportunity to include all in public service delivery. And opportunity to empower the citizens for participatory democracy.

But the greatest promise of e-government is the historic opportunity for the developing countries to “leap frog” the traditionally longer development stages and catch up in providing a higher standard of living for their populations.
Similarly, in Australia the state government of Victoria stresses the need for positive social impacts. Recently it reframed its e-government strategy around people-centred government. Its aim is (Government of Victoria 2002:1):

That Victorians are assisted to meet their everyday needs through timely, convenient and relevant support from government, made possible by harnessing the capabilities of information networks and communications technologies as they evolve.

Further (2002:2):

eGovernment should be about people, not technology...Putting People at the Centre...is our vision for creating a new era of richer interaction between the government and citizens.

E-government is thus about transformation. Many early discussions of e-government outlined stages in the development of e-government in which the final stage was ‘transformation’, ‘integration’, ‘seamless service delivery’ or some similarly ambitious state. However the path to transformation is tricky. Early, discrete and bottom up e-government initiatives tended to meet barriers. Such barriers included costs of ICT infrastructure, lack of interoperability, and problems of coordination. It proved easier to initiate specific projects than to bring together integrated packages. It also proved easier to use the internet to provide information than to facilitate transactions.

Thinking about the path to transformation raises large questions. Three deserve particular attention. First, is how change in the application of technology is to be managed. Whether the focus is on determining requirements for IT infrastructure, finding and accounting for funds invested, outsourcing responsibility for technology supply, redesigning office procedures, or redefining requirements for skills and knowledge possessed by public employees, governments assume substantial responsibilities for the management of change.

In a study that combines technical and organisational perspectives, Lionel Pearce (2004) uses the evolution of selected stages models to set out the extent of the change agenda. He argues that the specialists in information systems management who originated stages models found themselves drawn progressively more deeply into issues of organisation and management. He advocates an organisation development model in which each step forward is checked against progress on four dimensions: financial, business process improvement, organisational learning, and customer satisfaction (2004:147).

Second, is the focus of desired transformations. Much discussion focuses on citizens as customers. Government is treated as a retail business. Initiatives focus on individual transactions, for example, paying taxes, receiving benefits, renewing licences, or finding information. E-government in Singapore is notable for the number of transactions now available electronically. Victoria Online provides users with access to Victorian agencies through a single entry point. It also provides access to federal and local levels of government. At the federal level australia.gov.au provides access to a series of portals with entry points to federal government services and to state governments.

However, citizens expect more from governments than to be treated as customers (Mintzberg 1994). Pressures emerge for holistic initiatives that benefit citizens as a group. Such initiatives may include institution building, policy development and the management of information on which both the internal operations of government and the delivery of services depend. The statements quoted above from the UN and the government of Victoria make this explicit. However, progress on such initiatives is at a very early stage.

Third, is measuring progress and learning lessons. Initiatives need to provide value to citizens and to be integrated. The country recognised consistently as an outstanding leader in e-government, Canada, makes a point of using citizen surveys, focus groups, benchmarking tools, and advisory
groups (Government of Canada 2003). Canada also links explicitly making efficiency gains, improving services and integrating services.

The federal government in Australia follows a similar course. In a recent study (AGIMO 2003) it found that e-initiatives returned favourable cost-benefit ratios and that, if anything, agencies underestimated ‘the financial benefits to people of government online initiatives.’ It found also a demand from citizens for more participation (AGIMO 2003):

Focus group participants indicated a strong desire for more information, greater interaction with government agencies and active participation in development of future community-focused e-government initiatives.

For the two largest countries in Asia, China and India, a whole of government perspective is also emerging as critical. James SL Yong and Janice LK Leong (2003: 86) provide an example of the management difficulties facing e-initiatives in the Beijing Government:

We still lack a clear uniform standard in constructing e-Government, since different departments have different standards. Also, it’s very difficult to redefine the work responsibilities of those departments.

Unless such problems are addressed Yong and Leong foresee that (2003: 93):

“islands of automation” will result in different government agencies, and the overall e-Government interface will remain disjointed.

Yong and Sachdeva (2003: 142-143) identify similar issues in India:

…the road to an integrated e-Government system in India is still a long one. The projects are emerging disparately without much replication and interoperability…There is a great need for a comprehensive national e-Governance Plan.

If such issues assume high priority in countries that are making conspicuous efforts, they assume even more significance in countries that are still starting out. In Indonesia, for example, Ayuning Budiati (2004) found that e-government initiatives needed stronger leadership from the President and central agencies. Progress was further inhibited by the strong tendency for agencies and levels of government to work alone.

E-government thus refocuses the purposes and tools of government by contributing to agendas that place high priority on coordination, integration and providing citizens with value.

**RETHINKING COORDINATION AND DESIGN OF SERVICES**

Ensuring that ICT infrastructure supports e-government strategies requires explicit strategies for the governance of ICT. Once information and transactions are available online, attention refocuses on integrated services. In turn this leads to proposals for service redesign. Both governance of ICT and service integration have consequent impacts on the distribution of agency responsibilities and relations with users.

**Governance of IT—Weill and Ross**

The approach to IT governance proposed by Weill and Ross is designed to manage change. They argue that the need for IT governance increases as change accelerates (2004: 184). In headlines their case is that (2004: 14-18): good IT governance pays off; IT is expensive; IT is pervasive; new information technologies bombard enterprises with new business opportunities; IT governance is critical to organisational learning about IT value; IT value depends on more than good technology;
senior management has limited bandwidth; and leading enterprises govern IT differently. Through an extensive survey of IT management practices in leading corporations and several public sector agencies, including the Metropolitan Police Service in London and UNICEF, they aim to identify effective governance strategies.

For governments, their argument about organisational learning is especially important. They state that (2004: 16-17):

Enterprises have struggled to understand the value of their IT-related initiatives because value cannot always be readily demonstrated through a traditional discounted cash flow analysis. Value results not only from incremental process improvements but also from the ability to respond to competitive pressures…Effective governance creates mechanisms through which enterprises can debate potential value and formalize their learning.

The examples cited above reflect the difficulties many governments have in managing contending e-initiatives. Governments need to learn how to manage them better and convince citizens that they are getting value for money. Further, governments need to learn how to learn about managing e-government.

Weill and Ross’s analysis is based on an IT governance arrangements matrix related to different governance archetypes for different kinds of decisions. They identify five interrelated IT decisions (2004: 10-11):

- IT principles—clarifying the business role of IT
- IT architecture—defining integration and standardization requirements
- IT infrastructure—determining shared and enabling services
- Business application needs—specifying the business needs for purchased or internally developed IT applications
- IT investment and prioritization—choosing which initiatives to fund and how much to spend.

They identify six archetypes identifying the kinds of people involved in making IT decisions (2004: 12):

- Business monarchy—top managers
- IT monarchy—IT specialists
- Feudal—each business unit makes independent decisions
- Federal—combination of the corporate centre and the business units with or without IT people involved
- IT duopoly—IT group and one other group (for example, top management or business unit leaders)
- Anarchy—isolated individual or small group decision making.
They use the matrix to plot the distribution of arrangements used by the organisations in their study, relate arrangements to the making and monitoring of strategic business decisions overall, and identify effective patterns of governance.

Weill and Ross find that any decision archetypes can be associated with effective business strategies (2004: 158-175). However patterns fall into three main groups. Companies that focus on operational excellence use highly centralised IT governance to facilitate high-volume, low-cost transaction processing. Companies that focus on customer intimacy face more complex needs and try to combine decentralised organisational structures with strong business and IT monarchies to ‘define and enforce shared technology, business processes, and data definitions (2004: 168).’ Companies that focus on product leadership need to encourage creativity while sharing results and building synergies. They can use duopolies and IT monarchies. They can even use feudal arrangements for identifying IT application needs.

Generally, Weill and Ross argue that IT governance in corporations is moving from ‘more autonomous to more synergistic organizational designs. As firms evolve toward more synergistic designs, they adopt more complex IT governance (2004: 175.’

The distinguishing features of government organisations are greater organisational complexity and difficulties in performance measurement. Weill and Ross recommend (2004: 203-205):

- Joint business and IT decision making for setting IT principles
- Consider IT infrastructure principles to be strategic business decisions
- Do not use a feudal model for business application needs
- Use joint decision making for IT investments.

They suggest that high performing public sector bodies regularly use the following mechanisms (2004: 205-206):

- Executive committees focus on all key assets including IT
- IT council comprising business and IT executives
- IT leadership committee comprising IT executives
- Architecture committee
- Tracking of IT projects and resources consumed
- Business/IT relationship managers.
The most conspicuous result of improved IT governance is improved management of information. For example, they attribute the transformation of business processes in UNESCO to construction of an effective intranet.

Weill and Ross conclude that, compared with corporations, government and not for profit organisations need to govern IT in subtly different ways (2004: 214):

Successful IT governance in not for profits relies even more on partnerships and joint decisions between business leaders as well as heavier use of formal mechanisms such as committees. More and more not for profits will include representatives from outside the organization on their IT governance mechanisms to reflect their broader definition of value.

The strength of Weill and Ross’s analysis is that is based on case studies of large government or not for profit organisations and reinforced by considerable familiarity with government operations. However it does not examine arrangements for whole governments. The following brief examination of governance arrangements in the federal government in Australia and the state government of Victoria makes a start at filling the gap.

The examination reinforces Weill and Ross’s conclusions about business complexity and improved governance by evolution. However, as Canadian observers have noted, a government is an ‘enterprise of enterprises’. For this reason, federal models are highly attractive. The problem is that, as Australian experience shows, ‘whole of government’ models are very difficult to sustain. Making business-IT duopolies work at agency level does not necessarily create support for a cohesive, whole of government federal system. Federal models provide thin restraints on feudal temptations.

**Federal Government in Australia**

In the federal government the history of IT governance and of e-government initiatives is of successive attempts to improve coordination, which decay, and a profusion of single agency or single transaction initiatives, which succeed but do not always connect. Whole of government approaches to IT governance began in the early 1990s with a review commissioned by the Minister of Finance. The Finance portfolio had, and still has, a leading role in management reform across the federal public sector. While the review recommended improved coordination between agencies it recommended also contestability and outsourcing for IT solutions. A new government in 1996 attempted to drive outsourcing from the Department of Finance. Although it was forced to abandon this strategy there remains because of it a substantial legacy of mistrust of central direction of IT.

In 1997 the government set up the National Office of the Information Economy (NOIE) as a separate office within the portfolio of Communications, Information and the Arts. The office had a dual role. It encouraged internal coordination of e-initiatives. It also had responsibility for developing the regulatory and physical infrastructure for e-commerce. NOIE absorbed responsibilities from other departments, including the Office of the Government Online, but it did not have overall responsibility for e-government.

Meanwhile in 2002 the government set up an Information Management Strategy Committee (IMSC), supported by a Chief Information Officer Committee. The IMSC included heads of significant service delivery agencies and the Department of the Prime Minister and Cabinet. The head of Communications, Information Technology and the Arts chaired the committee. The Department of Finance was not represented. The committee encouraged a ‘big picture’ approach to ICT issues but agencies continued to be responsible for their own arrangements.

However the Management Advisory Committee, a meeting of departmental and significant agency heads, began to take a larger interest in the use of ICTs. The e-government benefits study, referred to above, also developed a substantial whole of government agenda (AGIMO 2003):
• Consistent methods for demand assessment and a demand assessment approach that will respond to the whole-of-government perspective  
• Consistent mechanisms for tracking all government service delivery options so adoption of e-government can be placed in perspective  
• Consistent methods for assessing value and determining which projects have an acceptable benefit/cost ratio and should proceed  
• A whole-of-government e-service architecture that focuses on the user and the interface to the user that will honour the intention of citizen-centric and cross-agency expectation  
• A mechanism for cross-agency cooperation that allows agencies to take the lead as well deliver services on each other’s behalf  
• A funding mechanism that responds to the social value being created and supports e-government initiatives that reflect cross-agency cooperation and citizen-centric development.

In 2004 the Management Advisory Committee followed up with a forthright report on coordination entitled Connecting Australia: Whole of Government Responses to Australia’s Priority Challenges (MAC 2004). Also in 2004 the government split NOIE, absorbed it into the Department of Communications, Information Technology and the Arts and created the Australian Government Information Office (AGIMO). AGIMO inherited NOIE’s internal coordination tasks. Further, as part of a post election reshuffle, the government created in the Finance portfolio a new Department of Human Services, charged with improving service delivery, and transferred AGIMO to Finance.

After several years and by a zig zag path the federal government has put together arrangements that may be able to fulfil Weil and Ross’s governance tasks. It has moved from a stance of differentiation and outsourcing to one of collective leadership by department and agency heads. Setting up the Department of Human Services suggests that it may also be willing to tackle the task of integrating services by redesigning them. Putting AGIMO and Human Services together in the Finance portfolio provides a platform for serious reform. Under NOIE the federal model tended to become confederal. Under the new arrangements it has gained a potential centre.

Victoria*

In Victoria the history of e-government is of initial enthusiastic political leadership, substantial redirection following a change of government, and recent steps to institutionalise political and bureaucratic leadership in the interests of further ambitious initiatives.

In the early 1990s a neo liberal government created Multimedia Victoria as a new agency to encourage e-commerce and e-government. In 1999 a new government, as noted above, introduced themes of ‘people centred government.’ It recognised also the need for a holistic approach, including (Government of Victoria 2002: 14-16):

• Effective governance—The mandate or authority to act in a given situation, a framework for reporting and accountability, a recognised budget process and reward system  
• Business systems—The operating business and decision-making processes that support cross-government activities  
• Physical infrastructure—The ICT and other systems needed to combine agency services for presentation to the community in an integrated way.

It developed *Victoria Online* as a joint venture between Multimedia Victoria and the Department of Premier and Cabinet, in conjunction with a range of external stakeholders. The project relied on extensive social research.

Victoria's approach counterpoints initial centralised, politically led initiatives, with a strategy to link citizens, technology and community development. However, this strategy was easier to articulate than to implement. More recently Victoria has opted for a radical reorganisation of decision making. Central to the new arrangements is a new position of system wide Chief Information Officer (CIO) ‘to improve efficiency, promote innovative and integrated service and cut waste’ (Moran 2003). There is also a new position of Chief Technical Officer (CTO).

The office of the CIO is located in the Department of Premier and Cabinet, which, with the Department of Treasury and Finance, provides advice across the full range of government responsibilities. The office of the CTO is located in the Department of Infrastructure. As with NOIE at the federal level, Multimedia Victoria has been divided. The CIO supports an ICT Strategy Project Board at head of department level and an ICT Strategy Sub Committee of the Expenditure Review Committee at Cabinet level. Similar central consolidation of roles, consistent with Weill and Ross’s recommendations discussed above, is envisaged for each department and agency.

The initiative was supported by a report by the Boston Consulting Group (Government of Victoria 2003). The consultants made extensive studies of private sector CIO models and of government ICT management roles which the consultants thought to be overly decentralised.

The approach includes a continuing conversation among stakeholders about governance principles and a thorough examination of all existing plans and investments. It includes significant foundation projects such as a single data centre servicing all agencies, government wide document management system and shared application hosting environment (Office of the Chief Information Officer 2004; Woodhead 2004). In the words of the foundation CIO, the approach provides strong reasons for people to work together (Woodhead 2004):

> What we’ve established are mechanisms for ensuring that agencies have discretion in regard to the evolution of decisions that their operations depend on, but in exercising that delegation we reversed the onus of proof. We essentially said that secretaries are to have regard to plan developments and to demonstrate why non-compliance would be beneficial.

In terms of Weill and Ross’s archetypes, the approach aims to create a federal model in which business and IT infrastructure needs are bound tightly together.

In different ways the federal government in Australia and the government of Victoria have raised the priority of IT governance in plans for e-government. Like Weill and Ross they have tried to solve the puzzle of how to encourage creativity by allowing discretion while ensuring effectiveness by providing leadership.

**RECONNECTING CITIZENS AND GOVERNMENTS?**

The cumulative impact of e-government initiatives holds out the prospect of creating substantial public value. Recent initiatives in Australia recognise the need to provide citizens not only with improved services but also with improved opportunities for participation.

Strengthening links between the current internal focus on IT governance and the benefits made available to citizens will become urgent. E-initiatives will promote new agendas of relationship management and institution building. Five examples make this clear.

First, initiatives in single electronic transactions, including procurement and licensing, improve transparency, accountability and timeliness in decision making. Some citizens will be satisfied with
quick, fair decisions. Others will want to develop wider agendas of transparency and accountability.

Second, looking at government services as retail operations has led to initiatives in service integration. Such integration has proved harder than it looked because service redesign leads to agency redesign. In turn, agency redesign changes relationships with users.

Third, sharing information within the public sector raises questions about accuracy, security and privacy. Within government, sharing information poses challenges of technology and management. Within the community it raises questions of public value and accountability. More significantly, it raises questions about the mechanisms most appropriate for determining citizen preferences.

Fourth, experiments with e-consultation and e-democracy join e-government agendas with wider agendas about new forms of national governance. As Canada has shown, citizen surveys can help shape effective e-initiatives. Well and Ross and recent Australian initiatives acknowledge the need for stakeholder involvement. So far experiments with e-democracy are modest. However, together with other e-initiatives, especially about the management of information, they have the potential to raise new agendas. These include demands to renegotiate relations between executives, legislatures and the citizens on whom both executives and legislatures depend.

Fifth, e-initiatives have the potential to transcend national boundaries. So far the strongest impacts on organisational boundaries have concerned agencies in government. Initiatives to integrate services have led already to questions about the realignment of responsibilities within federal systems. Initiatives in collaboration between national governments are likely to open up substantial new agendas.

Many discussions of e-government have kept it quite separate from agendas in e-governance. This discussion suggests that these agendas are already merging.

CONCLUSION

This discussion has examined the challenges for governments of making effective connections between technology and business strategy against the background of early, ambitious claims for e-government. It suggests that internal agendas about IT governance connect with wider issues of national and international governance.

It concludes that, at present, interactions between citizens, the institutions of government and Information and Communications technology raise more agendas than governments can handle.

However, trying to find ways through these agendas is to confront questions of wide interest to citizens. At the very least, e-government thus helps improve governance and services by asking questions.
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