The e-Volution of the I-Society in the Business of E-Government

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Synopsis

This paper concerns some of the challenges facing Australian Government service delivery as the impact of information and communication technologies (ICT) becomes increasingly apparent and it challenges both the form and the function of existing service structures. The paper is set within a ‘world view’ that recognizes the emergence of a civil society sector¹ within the global information society.

The paper assumes that there is an acceptance that:

- Australia has little alternative but to rapidly embrace electronically enabled services as a means of improving productivity, lifestyle and social cohesion and maintaining global competitiveness; and.
- As well as being able to increase efficiency, effectiveness and productivity the use of ICT is a social process requiring new approaches by government as well as by the private and civil society sectors.

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¹ The term civil society sector refers to the range of non-governmental organizations, voluntary associations, and social movements that exist outside the formal state apparatus but are engaged in public life and contribute to the development of civil society in a given society.
Introduction

Information and communication technologies (ICT) are posing fundamental questions for society, government and commerce in economic, social, educational, cultural and democratic processes within and across nation states in terms of access, equity and security. Electronic networks which can operate both inside and outside of nation states with hitherto unknown volume and velocity are challenging and changing the architecture of governance, power and culture (Bollier, 2003, Coleman and Gotze, 2002; Rheingold, 2004).

Many governments and global agencies have recognised the growing issues associated with inequitable ICT access and provided funded programs aimed at addressing specific needs within nation states. However, there is growing evidence that many of these programs have failed to deliver on their desired aims and that the societal and community based disadvantages resulting from uneven societal adoption of ICT are growing (see for example Pigg, 1998; Hewitt and Pinder 2003; Clement, 2000; Gurstein 2003a, 2003b). There is now increased understanding that the provision of ICT access, either high or low capacity, through government and private sector efforts by itself is insufficient to address the substantial concerns that face society as a direct result of ICT (Gurstein, 2003a; Pinder and Hewitt, 2002).

Further, growing experience across the world in the application of ICT in the provision of government services (known as e-government), is showing that reporting against targets related to the provision of government information and services electronically or physical ICT access by community, no longer embodies the major challenges governments must address to move forward in the information economy (Hewitt and Pinder, 2003). In almost all jurisdictions across the world, the take up of electronically enabled government services has been well below expectations even in situations where there are high levels of income, education and Internet connection across their populations (Bertucci, 2003; Dutta, Lanvin and Paua, 2003; Riley, 2003a; Rohleder and Jupp, 2003; West, 2003). Fundamental to these issues is the recognition of concepts of:

- **Effective use** as opposed to access (whether this is based around physical, attitudinal, educational, disability, cultural or integration concepts); and

- **Civil Society** and a new contract that binds civil society, public and private sectors into a value matrix (Brussels-EU Chapter of the Club of Rome and ‘Factor 10 Institute’, 2002).

Together, these issues provide substantial challenges for the traditional forms of governance we are familiar with, as well as for issues related to both the form and function of government service delivery and forms of engagement with citizens, the private sector and civil society. Incrementalist and efficiency based approaches within specialist government agency functionalities have been fundamental to our national success in the industrial and post industrialist ages. However, such approaches are now under pressure from increasingly ubiquitous ICT applications that do not have high respect for professional, organisational, nation state, social or cultural boundaries.

Global interest in e-government has produced a wide range of internal and external assessments of national performance in service delivery and ‘e-readiness’. Until recently, Australia has generally performed credibly relative to other larger developed countries in providing access to electronically enabled services in these external assessments. However, its comparative position is now being challenged by its performance in aspects related to service transformation, Customer Relationship Management (CRM) and ubiquitous service options (see for example Bertucci, 2003; Dutta, Lanvin and Paua, 2003; Riley, 2003a; Rohleder and Jupp, 2003). In particular, developing nations which are
redefining public sector models are now moving up these rankings quickly; witness countries such as Estonia, Korea, Philippines, Chile, Mexico and a whole host of countries in Eastern Europe. Further, nations such as the United Kingdom, Italy, Finland, Canada and Ireland are rapidly increasing their e-readiness indicator scores whilst Australia is slipping (see for example Bertucci, 2003). The issue of maintaining position in this changing environment is of importance to the Australian government as stated in its policy for the Information Economy.

Many of the issues raised above appear to be increasingly recognized by emerging policy in the Australian Government (see for example Shergold, 2003, 2004). This emergent policy recognizes that:

- Citizens are key stakeholders in the making and consumption of public policy;
- The most pressing problems facing Australia do not respect organisational boundaries; and
- A concept of the information society as being foundational to our economic, social and cultural well-being.

In developing adequate responses to the new territory, shaped by increasing ubiquitous ICT which has scant respect for hierarchies, boundaries, traditional allegiances or the disadvantaged, there is value in examining the emerging context for the social appropriation of ICT.

The Emerging Context for Social Appropriation of ICT

ICT is simultaneously both incrementally and fundamentally changing the working, social and personal lives of many people in developed and developing countries alike. The technological deterministic view of ICT diffusion, particularly in the development of e-government, is now being challenged. As the many examinations of ‘e-readiness’ are finding, the major current impediments to adoption of e-government are in the demand and the aggregation of supply and demand domains. Many of the ICT applications developed for organizational application have not been successfully embedded into the demand and demand aggregation domains and are being found wanting in such areas. Hence the social appropriation of ICT refers to the duality of redefining application design and of embedding the technology in social processes in civil society (for example see Surman and Riley, 2003). In short it is about customer driven technology.

In beginning to examine the emerging frame for ICT in a societal sense as opposed to viewing it through either a technology or an organisational efficiency lens, it is useful to consider the comparatively recent evolution of Information Systems (IS) as a discipline and its alignment with Management Information Systems (MIS). This can then act as a basis for examining civil society as a key area of the Information Society through the emergence of the new discipline of Community Informatics Systems (CIS).

Information Systems (IS) has been the overarching term used to describe the information software systems used for organisational applications. The traditional discipline of Information Systems is currently undergoing a major evolutionary step into societal applications, as opposed to organizational applications in business, education and service delivery. Harris (2002) has proposed a discussion framework for the emergence of Information Systems as a discipline (see Table I).

Whilst the time frames in this proposition may be considered arbitrary, depending upon location, and the descriptors used unnecessarily prescriptive, the proposition does, none the less, chart a development base for Information Systems as a discipline. It also makes the powerful point that the Information Systems discipline is now increasingly moving outside of organisational boundaries and into society. This domain is much more difficult to adequately define in terms of both form and function at the operational level.
In doing so, it is mixing with hitherto unfamiliar disciplines which have community engagement as an operating premise.

Table I: Information Systems as an Emerging Discipline

<table>
<thead>
<tr>
<th>Dominant Technology</th>
<th>Information Systems Locus</th>
<th>Work group focus</th>
<th>Dominant referent discipline</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960–70 Main Frame Computers</td>
<td>Electronic Data Processing</td>
<td>Clerical Staff</td>
<td>Computer Science</td>
<td>The Organisation</td>
</tr>
<tr>
<td>1980–90 Personal Computers</td>
<td>End User Computing</td>
<td>Knowledge Workers</td>
<td>Organisational Behaviour</td>
<td></td>
</tr>
<tr>
<td>1990–2000 Networks</td>
<td>Strategic Information Systems</td>
<td>Shareholders</td>
<td>Economics and Marketing</td>
<td></td>
</tr>
<tr>
<td>2000 The Internet</td>
<td>Community Informatics</td>
<td>Citizens</td>
<td>Social Science</td>
<td>Society</td>
</tr>
</tbody>
</table>

Source: Harris (2002)

The term Community Informatics (Gurstein, 2000) has recently emerged to describe the use of ICT for local community benefit and more recently, international researchers and funding agencies have moved towards the term Community Informatics Systems (CIS) as a parallel for Management Information Systems (MIS). CIS is an emerging area of practice, teaching and research that fits within an Information Society framework alongside the more traditional areas of Business, Technology, Government service delivery and Contemporary Communication. It may be depicted as outlined in Figure I.

It is important to note several very distinct differences between MIS and CIS approaches. Firstly, Community Informatics Systems focus on distributed systems and not aggregated ones. Secondly, CIS favours collaboration over competition and sharing over hoarding. Thirdly, CIS is based on a premise of active interaction in the development, use and appropriation of the systems compared to MIS which is predominantly based on a passive consumption of service offerings.

Figure 1: The Contextual Framework for Community Informatics Systems

As we are finding, the great promises of an electronically enabled world are not always turning out in predicted ways. In fact ICT is forcing society, government and business to look at structures, systems and interactions in new ways. Such examination challenges existing systems established to great advantage in a mechanistic age where there was a wider acceptance of technological determinism and calculative rationality in governance and management structures (Falconer, Casteleman, McKay and Altmann, 2000).

In point of fact, the impact of ICT is quite paradoxical as can be seen from the Table II originally described by Mick and Fournier in 1998. Further, there is increasing evidence that left unaided, ICT by its very nature tends to centralise both power and decision making into larger economies of scale which may or may not respect geographic culture, social processes or economic needs. Whilst these tendencies operate within a paradigm of competition policy within nation states, the impacts are thought to be able to be mediated to some extent through redistribution of resources to disadvantaged geographic and socio-economic locations. However, increasingly we are seeing online business and consumer behaviour moving outside of nation states. The future impact of this is as yet unknown. But superficially at least, it poses significant economic, social and cultural challenges for governments, smaller business and civil society alike. The global adoption of ICT is cause for Australia to reassess its competitive position in relation to ICT enabled economies of scale, resultant national alliances, electronically engaged citizenry and concepts of civic intelligence.

### Table II. Eight central paradoxes of adoption of technology

<table>
<thead>
<tr>
<th>Paradox</th>
<th>Description</th>
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<tbody>
<tr>
<td>Control/chaos</td>
<td>Technology can facilitate regulation or order, and technology can lead to upheaval or disorder</td>
</tr>
<tr>
<td>Freedom/enslavement</td>
<td>Technology can facilitate independence or fewer restrictions and technology can lead to dependence or more restrictions</td>
</tr>
<tr>
<td>New/obsolete</td>
<td>New technologies can provide the user with the most recently developed benefits of scientific knowledge, and new technologies are soon outmoded</td>
</tr>
<tr>
<td>Competence/incompetence</td>
<td>Technology can facilitate feelings of intelligence or efficacy and technology can lead to feelings of ignorance or ineptitude</td>
</tr>
<tr>
<td>Efficiency/inefficiency</td>
<td>Technology can facilitate less effort or time spent in certain activities and technology can lead to more effort or time in certain activities</td>
</tr>
<tr>
<td>Fulfills/creates needs</td>
<td>Technology can facilitate the fulfilment of needs or desires and technology can lead to development or awareness of needs or desires previously unrealised.</td>
</tr>
<tr>
<td>Assimilation/isolation</td>
<td>Technology can facilitate human togetherness, and technology can lead to human separation</td>
</tr>
<tr>
<td>Engaging/disengaging</td>
<td>Technology can facilitate involvement, flow, or activity and technology can lead to disconnection, disruption or passivity</td>
</tr>
</tbody>
</table>

Source: Mick and Fournier (1998)

In summary then, the current research on e-government briefly outlined above, shows that ICT and Internet technologies are increasingly moving into a civil societal domain which is multidimensional and requires new forms of research, management and learning. Also, the provision of e-government alternatives is expensive, has not generally delivered expected cost savings, has not been generally adopted by citizens and has not generally improved social inclusion, innovation or participation. Further, concepts
of ‘joined up’ government services and/or ‘whole of government’ responses in e-government have yet to find significant success in many developed countries. However, even in such an environment governments have little alternative but to continue with expensive e-government agendas. Such a situation provides challenges for traditional forms of e-government service delivery which have been by and large predicated on concepts of ‘doing to’ and ‘providing for’ within a largely *homo economicus* doctrine.

**Key Elements for Social Appropriation of E-government**

As discussed above, there is substantial current literature and documented experience, particularly in developed countries, concerned with evaluating the effectiveness of current e-government approaches. Outside of the issues related to the mechanistic objectives of merely providing material electronically in a safe, accurate and acceptably private manner, several key elements seem to emerge across most of this experience. These elements are of necessity inter-related and some of the major ones are briefly outlined below.

**Trust**

An important aspect in the social appropriation of ICT is the level of trust (institutional and transactional) that is impacted by the technology when citizens/consumers interact with government organizations (Huta, 2004). A key challenge for government agency (at all three levels) is how it establishes and maintains online trust and reciprocity with its customers. Trust is also a challenge for elected governments at all levels in an electronically enabled age.

**Perceived relevance and value**

Sitting alongside trust, perceptions of value and relevance are being found to be significant issues in successful adoption of e-government (Riley, 2003b and Riley and Riley, 2003; Larsen and Rainie, 2002). Large sections of civil society have been increasingly disengaging with many forms of government over recent times. Leading researchers, policy makers, elected officials and civil society leaders from both developed and developing countries are seeing e-government as an essential means to re-engage people with government, service delivery and democratic processes (Riley, 2004). Rapid progress in such matters is being made in newly emerging democracies, particularly in Eastern Europe. Fundamental to the success of e-Government in Australia is the need to address issues of perceived relevance and value amongst non-users whether they have access to ICT or not.

**Customised web presence (access, data and volume granularity)**

The citizenry as customers of e-government services is a widely heterogenous entity in terms of socio-economic class, literacy, need, access, education level, professional interest, physical health, ethnic background, language etc. Often those that have high needs for e-government services for social support and equity are those most excluded from electronic access, understanding and perceived need. It clearly follows that ‘one size does not fit all’ for e-government service delivery. Further, the interaction of physical access to the technology, online volume, download capacity, and access to adequate printing, provide challenges for the development of e-government services, if they are to be and remain relevant to the citizenry. There is increasing recognition that public service information needs to be provided in a range of formats that accounts for such heterogeneity. This issue will be further complicated by the emergence of u-government (ubiquitous government) which is being driven by rapid technological development particularly in mobility and functional integration.
ICT Competency: 3rd essential life skill

Experience is showing that for even basic levels of citizen use of e-government, an increasing capacity to use and keep abreast of ICT is the 3rd essential life skill (alongside literacy and numeracy) for nation states that wish to maintain relevance, productivity and an adequate societal life style (Hewitt and Pinder, 2003). This recognises that the current forms of education and training do not reach a sufficient component of society to be effective and that it is very difficult to reconfigure existing educational and training systems to address any serious attempt for western democracies such as Australia to have an electronically enabled citizenry. Given the propensity of ICT to provide economic advantage and larger economies of scale which clearly favour places other than Australia, it is in Australia’s best interests to recognise the value of consolidation of general citizen ICT skills that sits behind most successful small nation states in the information age.

Discontinuity of ICT adoption

Adoption of ICT for issues not related to personal work situations and education requirements is clearly discontinuous. Assumptions that the passage of time and increased technological access will address the needs of e-government in meeting the needs of Australian Civil Society in an adequate timeframe are flawed. Clearly, experience in other jurisdictions is showing that the issues of adoption for this technology are much more complex than previously thought. The imperative associated with such adoption requires a dedicated effort to support the take up of existing government service delivery.

Collaboration: Civil Society, Government and Corporate sectors

ICT by its very nature is pluralistic and ubiquitous. It is much more than just a tool to increase efficiency, and it is beginning to redefine the relationship between the ‘governers’, the ‘governed’, the service providers and business. Whilst government agencies have increasingly worked at interacting with their constituencies over recent times, the international lesson for e-government is that it provides a channel to bypass the organisation of government agencies (see also Griffiths, 2004). Further with e-service delivery becoming a mainstream business activity, the corporate sector has an increasing interest in and capacity to become involved.

The construct of a civil society as an entity is becoming more widely seen in the global environment as a useful means to enable access, equity and civic intelligence in the electronically enabled age (Birch, 2003; Bloem, Guerra, Krebs and Lassonde, 2004; O’Siochru and Constanza-Hock, 2003; Thompson, 2004; WSIS, 2003; WSIS Civil Society Plenary, 2003). Hence, there is a recognised need to deliberately facilitate a means of encompassing continuing dialogue with Civil Society in order to provide collective economic, social and cultural benefit to nation states. All components of society across government, business and civil society are currently missing out on the richness associated with the overlaps that currently exist as well as being able to adequately plan for emerging ones. Further, ongoing reliance on discontinuous engagement with relatively small and random population groups as a means of determining priorities, developing usability criteria and the like for e-government services from within narrow agency perspectives is problematic. In such environments concepts of ‘triple bottom line’ should apply to all of the components i.e. Governments and Civil society as well as Business. This may require the formation of new collectives which have a specific mandate in progressing issues for the Australian Information Society.
The spatial dimension

In the vibrant dimension that is the emerging Information Society, there is an increasing recognition particularly amongst local governance that a sense of place, in a local regional sense, is important for the delivery of services and social, cultural and economic sustenance. Clearly, place does matter. From a community perspective, ICT is increasingly being seen as a means of enhancing ‘face to face’ interactions in a local environment. From the local governance perspective, there is increasing recognition of the necessity of taking a proactive approach to address the effects of ICT on spatial areas. The World Summit of Cities and Local Authorities on the Information Society formulated a Declaration that was subsequently adopted by WSIS in Geneva December 2003 that laid down a framework for local governance involvement in e-government (Executive Secretariat Lyon Summit, 2003). There is increasing global interest in the vital role of local government in the Information Society and suggestion that it can be the ‘portal’ of e-government. The need to increase perceptions of relevance and the involvement of local governance in all its guises is a key issue for an integrated approach to the adoption of e-government in Australia.

Assessment, benchmarking, policy and research

Clearly, the environment for successful deployment of e-government is both challenging and ever changing and requires new approaches. Approaches which have operated on the premise that ICT is merely a tool to increase efficiency of existing services are being found wanting. ICT has converted societal networks into powerful and efficient forms of civil society organisation. Currently, the shaping of online communities remains outside the public policy arena in most countries (Feenberg and Bakardjieva, 2004). In such situations, there is an urgent need to develop and apply new means of assessment, benchmarking, policy development and research. Experience is showing that it is difficult to do this from within a line agency perspective, or indeed from with a current paradigm of government or private sector service delivery, research or policy development. This is an issue of immense importance and requires that consideration be given, as a matter of priority, to separate funding allocations to those currently provided to scientific, productivity and management research.

The elements outlined above that have been commonly found to be important in the adoption of e-government are all outside the specific charter of most if not all government agencies. The conclusion drawn by many commentators is that governments do not have a choice but to embrace the changing expectations of an increasingly electronically enabled citizen in developing and delivering effective e-government services.

Issues for Moving Forward

Clearly the rate of interactive participation by civil society with e-government activity is a major issue for the Australian government. Affecting this in the changing dynamic of the emerging ubiquitous information environment requires an additional focus on the ‘electronically enabled citizen’. Whilst it is unfair to draw any direct comparisons with the infamous Sir Humphrey Appleby’s highly efficient and award winning hospital with no patients, the reference does none the less provide some analogy. For example, ‘patients’ or citizens (or for that matter students in Universities !) do mess up efficiency models; but they are necessary and as we are all finding ‘working with them’ is far more useful than ‘doing to them’. However in dealing with such clients/customers, these systems have entry stratification, agreed rules and try very hard to homogenise the client in order to deliver services to suit a particular profile. Generally, there is agreement that consumption will provide an identifiable personal benefit and there is a relatively high user tolerance of difficulty. Further, there is a degree of professional trust and there is a relatively high expert to consumer/client ratio.
One clear observation that can be made is that government and the private sector have fundamentally different approaches to service delivery to their respective clients. It is neither possible nor desirable for government to choose customers in the same way that the private sector can, whether be it in face-to-face contact or through online engagement. Government provision of information and services is driven by a ‘public good’ ethos that demands a different service model for its citizen-clients than the consumer-client model of the private sector. Continued outsourcing of specific service delivery options to the private sector however further complicates the composition of the ‘public good’ aspect of government service delivery that remains.

Citizens fit an entirely different mode to the model of service delivery to customers in the private sector. At the risk of overly generalising the government service delivery model, citizen entry is open, there is not a universally accepted benefit, tolerance to difficulty is low, there is no agreed ‘rule’ of engagement, the ‘expert to consumer ratio’ is very high, trust can often be low, there is high heterogeneity in most of the cognitive and socio-economic parameters and there is an emerging societal interest in renegotiating the relationship with government service provision.

In opening the landmark European Commission (EC) seminar on e-democracy in February 2004, Erkki Liikanen the EC Commissioner for the Information Society underlined the changing nature of the citizen/government relationship by making the point that the Internet can be used by citizens to watch their governments rather than by governments to watch their citizens. He said that e-government can make governments more relevant to citizens, by increasing participation in decision making and restore ownership so that government is of the people.

At the same seminar Stephen Coleman, the well respected CISCO Professor of e-government at the Oxford Internet Institute, proffered the view that western governments in particular have been slow to accept the fact that e-democracy and e-government will fundamentally change the relationship between governments and their citizens. He said that we must accept the simple fact that technology always changes the role of institutions and if change was not wanted governments should not use the tools. Coleman stressed the urgency of grasping the opportunities because vacuums did not last long in democracies and they were often filled by the private sector (for further detail see Coleman and Gotze, 2002). In such scenarios, private value can be sold as public value and society needs to appreciate the true nature of this and shape it accordingly. The delivery of information to civil society constitutes a powerful public good and under-delivery will affect people’s well being, social inclusion/exclusion and inhibit the development of the information economy both in local and global terms.

It is becoming rapidly apparent that the most powerful shapers in the e-government and e-democracy stakes are international corporations, alliances and bodies. Australia is not well placed in such an environment in that it is not well aligned with a large geographic alliance in the ways that the European Union, North America, Asian subsets, Latin America are nor with emerging developing country alliances. The reality of large global networks and alliances means that fundamental information society issues and challenges cannot be ‘swept under the carpet’, put off as too hard or glossed over. Dealing with such issues only in certain sectors and only after Australia has seen what is happening in other jurisdictions will just be too late. ICT has converted pre-existing and long-formed societal networks into powerful and efficient forms of civil society organisation.

In preparing Australia for the next phase of the emerging ICT enabled environment in e-government, a new social contract is required that binds and partners civil, private and public sectors in delivering social inclusion and social cohesion in ways that strengthen economic, social and cultural benefit in the information society. A schematic which can be used to discuss such interactions is depicted in Figure II.
Figure 2: A social construct for the Information Society

In this context of the Information Society as defined by the United Nations and its related international bodies and task forces, the emergence of a construct of civil society is clearly the preferred option for all of the significant international bodies affecting access and effective use of ICT (Birch, 2003; Bloem, Guerra, Krebs and Lassonde, 2004; O’Siochru and Constanza-Hock, 2003; Thompson, 2004; WSIS, 2003; WSIS Civil Society Plenary, 2003) Hence there is a value proposition for Australia in the emergence of civil society and its active role in the development of the information society. Tentative first steps have been taken in this regard in Australia with the formation last year of the Roundtable for Australian Civil Society (RACS, 2003) to develop and deliver a statement from Australian Civil Society to the World Summit on the Information Society (WSIS). Governments can create considerable public value if they are able to reproduce themselves as networks instead of hierarchies.

In making progress on such an agenda, there is an obvious need for both a recognisable form through a visible and supported structure, and function through a distributed research and policy development capacity. Such a functionality or academy should sit alongside an entity of an e-government academy and act not only as channel for discussion but also as a primary developer of relevant inputs to policy, a coordinator and evaluator of research and an alliance builder with relevant international efforts.

This could take the form of a distributed Centres of Excellence approach bringing together some expertise from Universities, TAFE’s, government agencies, business and Civil Society in functional forms that provide the entity for effort. Taylor (2004) had outlined an initial policy brief for an Information Society Academy based on Putting People at the Centre of the Information Society (PPACIS). Such an approach could provide an important platform to continually advance a ‘joined up government’ agenda for e-government which recognises the needs of various societal layers or segments, the value of participation in gaining increased effective use and avoids the costs of retro designing for ubiquitous electronic interaction.

In preparing for the thinking that underpins the necessary shifts for successful e-government, it is useful to consider the lessons learnt from other jurisdictions when they have begun to interact with a concept of Civil Society. In general these can be summed up in the operating principles of the MISTICA project in Latin America and the Caribbean.
1. The Internet is a Social matter not just a technical or a commercial one
2. An impulse towards equal opportunities of access, sensible use and social appropriation
3. The ultimate goal is transformation of our society
4. The Internet offers opportunities but there is no need to magnify the technological tool
5. The ‘Digital Divide’ should be approached in a collective not an individual way
6. Social divides are reflected on the Internet. There is a responsibility to take advantage of and defend existing open places
7. The Internet can boost human development processes that already exist
8. The Internet provides information not knowledge
9. Generating new knowledge is an engine for change that the Internet can boost but how to switch on the ignition must be understood
10. The impact of the Internet is in the change that it generates
11. It matters that the use of ICT should lead to social transformations that brings positive social change to regions
12. It is possible to live without the Internet
13. Reflections of the social appropriation of ICT exist in individual and collective actions and projects.

In addressing the issues of accessibility for broadly defined disability which includes anyone with a web limiting condition (technical, environmental, educational), most serious evaluation has found that e-government has failed to valorise diversity. Concepts of technological determinism and ‘providing services to’ instead of ‘working with’ often lead to singular views about ‘the best way’. This does little for the attitudes of the vast majority who have low tolerance of persevering with difficulty when they need to be convinced that it will lead to a significant improvement in their daily lives. This is difficult enough in relatively stable environments but it is increasingly complex in situations of rapid technological change. Such a situation challenges views of continuous adoption and brings to the fore concepts of discontinuous adoption based on psychographic states proposed by Moore (1991) after studying the uptake of IT products and services in the Silicon Valley. Discontinuous adoption of ICT is based on the premise that adoption will simply not progress until the technology meets the separately identifiable needs of various segments of the population. In other words there are clear disassociations between participating and non participating adopting groups. The evidence in the uptake of e-government initiatives all around the world would give some testament to such a proposition. In responding to this reality, a two pronged approach which recognises the essentiality of an escalating skill in using ICT as a third life skill alongside literacy and numeracy across the whole of society, combined with a pluralistic and layered approach to electronic service provision, must be developed.

E-government must take place on civil society’s terms and e-government cannot progress ahead of its constituency (Bertucci, 2003). Australia’s current global position in relation to e-readiness clearly identifies that we cannot get to the next level of service transformation without serious attention to this pluralistic issue. Training, skills development, education and research are of course vital. But in reaching for the electronically enabled citizen, such efforts have to be for the whole of society. Waiting for the education system and segments of the workplace to impact this issue in the medium to longer term will be too late. Even in such systems that have training support measures in place competency is difficult to attain,
evidenced by the fact that Microsoft announced in November 2003 that its research has found that 60 percent of its users could not use its products adequately (Carey, 2004). Carey (2004) goes on to define a functional gap that exists between civil society and e-government services which is based on design failure and a lack of granularity in the data to accommodate useful customisation for a heterogeneous civil society.

**Conclusion**

This paper has outlined a case for a new approach to be taken in the delivery of e-Government in Australia based on emerging international experience. Australia has a stated commitment to maximising its productivity and the quality of life of its citizens through the effective use of ICT. Clearly if it is to deliver on such commitments, it now needs to add a government agency driven policy dimension which focuses on electronically enabled citizens and a concept of Civil Society in the Information Age. International experience is demonstrating commitment to such approaches and prioritising funding accordingly. This is a serious issue for Australia’s competitive position in the global Information Society. Consequently, it needs to take note of the changing paradigm and strive to be a leader if it is to address the issues that necessarily go with ICT in relation to its geographical location and population size. To achieve this, a serious commitment in terms of agency, research and development and collaboration with civil society needs to be made.

Historically, Australia has been able gain great benefit from investment in technological and scientific research. Such a commitment now needs to be made into an area which hitherto has not been a priority for government or industry. One possible approach suggested in the paper is for consideration of the establishment of an Information Society Academy as one way of advancing the next stage of the evolution of e-government in Australia.

**Bibliography**


Gurstein, M 2003b, Community Innovation and Community Informatics: Building national innovation capacity from the bottom up, Keynote address presented at the International Conference on Information Technology in Regional Areas, 15-17 December 2003, Caloundra.


Notes

1 Civil Society can be loosely described as ‘that which is not government and not business’. The term has been given increasing global prominence by the United Nations conducted World Summit on the Information Society (WSIS-http://www.itu.int/wsis). The definition given by WSIS covers a number of ‘families’ including academia and education, science and technology, creators and promoters of culture, trade unions, media, NGO’s and social movements.

2 Schuler defines civic intelligence as the ability of humankind to use information and communication in order to engage in collective problem-solving. For a more detailed explanation, see http://www.scn.org/commnet/civic-intelligence.html.

3 Homo economicus or Economic man, is a term used for an approximation of Homo sapiens that acts to obtain the highest possible well-being based only on the consideration of his own personal “utility function” that does not consider the well-being of others. It assumes that individuals possess perfect self-interest, perfect rationality and perfect information. See http://www.huppi.com/kangaroo/L-homoeconomicus.htm for a detailed discussion.


9 See for example the model developed by the World Summit on the Information Society (WSIS) for emerging definitions of civil society and engagement http://www.itu.int/wsis.

10 The statement is available through the Community Informatics Research Network (CIRN) http://ciresearch.net,

11 See http://www.funredes.org/mistica/english/project/.