Egovernment: Issues and Implications for Public Libraries

A report on trends and themes in the literature

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Executive Summary

Introduction
Governments around the world have recognised the opportunities provided by the Internet and the worldwide web and are exploring new ways of delivering services and interacting with citizens, although there is increasing awareness, that what lies ahead is a “long and complex transformation”.

This initial phase of a larger research project introduces key themes, provides an overview of e-government policy and looks both at public libraries as e-government service providers in their own right and at the potential impact on libraries of e-government initiatives generally.

The report represents a critical analysis of secondary literature and seeks to provide a context within which to consider the issues for public libraries which are emerging from the implementation of e-government, rather than a comprehensive review of the literature.

Setting the scene
The important role played by public libraries in Australia was recognised in 1999, when the National Office for the Information Economy (NOIE) acknowledged public libraries as intermediaries in the information industry, while also calling for consideration of the expansion of this role in the online world.

Currently NSW public libraries provide access to electronic information in several ways: through public access to the Internet, through reference services which draw on electronic as well as paper resources, and through their ‘enabling’ role in providing training in both ICT skills and information seeking skills.

Findings of the review

E-government
Not surprisingly, given its early stages of development, definitions of ‘e-government’ and associated terms such as ‘government online’, ‘e-service’ and ‘e-administration’ abound. These definitions range from that of the NSW Government, (“the use of Internet technology to deliver Government services”) to more recent descriptions which make reference to “government service delivery, constituency participation and internal government processes” or recognise the profound organisational change that must accompany the implementation of e-government.

Governments at all levels have embraced electronic service delivery, although the rollout is less extensive in local government (Singh, et al, 2001). In Australia, not unexpectedly, the situation varies from state to state. In NSW for example, the emphasis has been on establishing the technical infrastructure and getting local councils online, especially in remote regional areas. Contrast this with the situation in Victoria or the UK, for example, both of which situate
local e-government in an overall e-government context, providing access to key policy and strategy documents, examples of best practice and a range of links.

Although we are seeing comments about the potential transformational nature of e-government, as yet the shape of this ‘transformed government’ is only roughly sketched and concerns are being voiced, for example, that the nature of the public sector culture may inhibit e-government roll-out\(^8\),\(^9\) or that implementation in the UK may be simply “reproducing Whitehall online”\(^10\).

As use of the Internet grows, so does use of government websites and electronic services. In Australia, the most frequently available services are information-related\(^11\). Frequently used government e-services overseas include, for example, change of address or status, reservations for health care and car registration and driving licence renewal\(^12\) or ‘income generating services’, such as taxes, and registration services, such as cars or new companies\(^13\).

**Public libraries and e-government**

Research carried out for the Canadian Library Association\(^14\) in 2002 found “no in-depth treatment of public libraries as a source of GOL”. However, there appears to be two distinct though related ways to view the issues surrounding public libraries and e-government.

Firstly, public libraries as government-funded services clearly deliver e-services in their own right, providing electronic access to information and resources, including government information. In a sense, this is an extension of what libraries have always done. Seeking to assess e-government implementation, the European Commission identified 20 “basic public services” to benchmark\(^15\), with public libraries nominated as one of 12 ‘services to citizens’. Of the 20 services, public libraries are the most heavily used, with 50% of users being online\(^16\). So public libraries as e-government service providers are clearly significant players in e-government.

There is however a second way to view the relationship between public libraries and e-government. As the physical barriers between service providers break down through web service implementation, as jurisdictions and government agencies are ‘joined up’, some public libraries are beginning to provide government services other than information provision, for example, handling rates transactions. In this respect, they can be seen to be moving beyond the traditional role of libraries as providers of information, a move which is supported in several quarters\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(^,\(}
Government statements about the significance of e-government and the level of successful implementation are generally positive. However, studies on e-government reveal a number of concerns relating to its deployment, several of which are likely to impact on public libraries:

- **the digital divide** - a range of figures and analyses\textsuperscript{24}, \textsuperscript{25}, \textsuperscript{26}, \textsuperscript{27}, \textsuperscript{28}, \textsuperscript{29} suggest that, for some years to come, there will be members of the community who will access the Internet and e-government through an intermediary.

- **intermediaries** - although a single portal or a one-stop shop for services and transactions is the stated goal of many governments, a report from Gartner suggests intermediation “will increase rather than diminish in importance”\textsuperscript{30}. An issue not yet widely canvassed in the literature is the question of how effective intermediaries are in delivering government services and what training they will need.

- **ongoing need for human intervention** - KPMG, analysing the UK Government’s progress, found that human contact is still preferred by 31% of respondents\textsuperscript{31}.

- **resourcing e-government** - in many countries, the initial approach has been to resource e-government pilot projects from start-up project funds. However, the Australian experience with online access centres\textsuperscript{32} suggests that without an ongoing revenue stream, services funded in this way are not sustainable – unless the new service deliverer feels they have to pick up the ongoing costs so their local community is not disadvantaged.

**Conclusion**

Given the current early state of e-government development, the future is necessarily still unclear, although we can expect e-government will continue to develop in some form or another “into a sophisticated service with high user expectations”\textsuperscript{33}. Australia’s public libraries are important participants in a broader and still evolving information industry. As such, they have a part to play in shaping the form of e-government in Australia.

The existence of the digital divide suggests that for some years to come, a significant segment in the community will rely on intermediaries, including public libraries, for access to the Internet and to e-government. Together with an ongoing need for human intervention in government service transactions, it appears that intermediaries can expect an increase rather than a decrease in demands on their services.

There is little evidence that governments in Australia have paid sufficient attention to planning for this expanded role. Nor is it clear that funding has kept pace with the additional and unanticipated costs which are being incurred.

Clearly, however, public libraries, playing the role of intermediary in the provision of e-government services, can expect to have further unanticipated demands placed upon them.
Introduction

This report, prepared for the NSW Public Library Network Research Committee, is part of a larger research project to develop a greater understanding of the impact of NSW Government electronic service delivery initiatives on NSW public libraries.

Governments around the world have recognised the opportunities provided by the Internet and the worldwide web and are exploring new ways of delivering services and interacting with citizens. Although e-government strategies are starting to “look increasingly similar” across countries and jurisdictions, e-government is still in the early stages of development, with “little agreement on terms, tools, or techniques”.

The early attitudes of both community members and public sector officials to this evolving transformation may be characterised as positive but wary and increasingly there is an awareness that ahead lies a “long and complex transformation”.

Australia’s public libraries are important participants in a broader and still evolving information industry. As such, they have a role to play in shaping the form of e-government in Australia. This report seeks to scope the issues which public libraries will encounter as e-government becomes more firmly established, and to provide a framework for this discussion.

Scope and Methodology

Specifically this initial phase of the research project introduces key themes associated with the concept of e-government and provides an overview of e-government policy in Australia. Current federal, state and local government e-initiatives are outlined.

The review looks at public libraries as e-government service providers in their own right and at the potential impact on libraries of e-government initiatives generally. Emerging issues and their implications for public libraries are considered, with the focus on services for the community rather than business.

The report represents a critical analysis of secondary literature, focusing mainly on Western countries – in North America, Europe, including the United Kingdom (UK), and Australia. It is necessarily a high level view of the landscape, since that is the level of the literature itself.

The report does not aim to be either a comprehensive review of the literature nor an exhaustive analysis of government policy. Rather, it seeks to provide a context within which to consider the issues for public libraries which are emerging from the implementation of e-government.

The main components of the literature reviewed are consultants’ reports, government statements and articles in the academic press. Reports by consultants such as KPMG Consulting and Gartner are prominent in the literature, both in defining the concept and in developing frameworks against which to analyse progress. The government websites
themselves contain policy statements, strategic frameworks and reports which have been considered, albeit with caution – as Muir and Oppenheim observe: “Government websites use hyperbole”\textsuperscript{42}. Contributions from academics, often found in the form of submissions to government inquiries, have also been reviewed.

Although initially a five year time period was used, it became apparent that most relevant literature has appeared since 2000. While some policy statements from before 2000 are included, most material reviewed is post-2000.

While some writers embrace a broad definition of e-government, including e-administration, e-governance and e-democracy, the report focuses on the electronic service delivery aspect of the issue, since it appears this is where the current impact on public libraries is greatest.

The term ‘e-government’ is currently the most commonly used in Australia. The term is preferred throughout this report and may be taken to include the broad range of definitions which include electronic government service delivery, government online or GOL, e-administration and e-democracy.
Setting the scene

Public libraries

Public libraries are places and institutions of significant value to their communities, serving educational, economic and social needs, and making a major contribution to providing equitable access to information, both electronically and paper-based.

Currently NSW public libraries provide access to electronic information in several ways: through public access to the Internet, through reference services which draw on electronic as well as paper resources, and through their ‘enabling’ role in providing training in both ICT skills and information seeking skills.

The important role played by public libraries in Australia has been recognised here and overseas. In 1999, the National Office for the Information Economy (NOIE)\(^43\) acknowledged public libraries as intermediaries in the information industry, while also calling for consideration of the expansion of this role in the online world. In a report on the impact of e-government on public libraries in Canada, de Stricker\(^44\) observed that libraries could be positioned as a “key player in the ‘social inclusion’ agenda as is the case in the UK, Australia, and the United States”\(^45\).

ICT environment

The development of e-government is of course taking place in an evolving information and communication technology context which has a major impact on the effectiveness of e-government initiatives. The statistics that follow sketch a picture of Internet access and use but it should be noted that in a rapidly developing environment, they do not pretend to present a comprehensive description of what is happening.

*Internet access and use in Australia*

NOIE reported that in March 2003, 54% of Australian households had access\(^46\), that is, a physical connection, to the Internet\(^47\). This figure translates into 75% of individuals in Australia over 16 with access to the Internet. Of this group, 60% access the Internet from home, 32% from work and 25% from other sites such as the local library or Internet cafes\(^48\).

Not all people with access to the Internet use it regularly. Recently released figures from the Australian Bureau of Statistics (ABS), from the 2001 Census, report 37% of the population reported *using*\(^49\) the Internet\(^50\), though this percentage is likely to have increased in the intervening years.

It appears however that a number of Australians may be irregular users of the Internet and of e-government services. An analysis of the 2001 Census statistics\(^51\) reveals that 58% of Australians did not access the Internet in the week prior to the Census. Not surprisingly, the same analysis reveals large numbers of people within the ABS’ ‘key disadvantaged groups’
Looking at use by location, it is clear that use in metropolitan areas is higher than regional use. However, Lloyd and Bill suggest that regional location is only part of the story behind the figures. While there is a gap between metropolitan and rural areas, the group least likely to use the Internet are those residents in small to medium sized towns, rather than rural residents such as farmers.

**Internet access and use overseas**

July 2003 World Bank figures, cited in a recent report from OCLC (and presumably based on the 2001 Census statistics) place Australia in the top 10 countries for Internet usage, although at 37% usage, Australia sits some way below the leading countries (Norway – 60%; USA and South Korea – 51%; Netherlands – 50%; Japan – 44%; Canada – 42% and the UK – 40%).

In the USA, although activity on the Internet is growing, “growth of the online population itself has slowed”, with “almost no growth over the course of 2002 and … only a small uptick in recent months”.

**Web services**

A discussion of the ICT environment in which e-government is being deployed would be incomplete without mention of the concept of ‘joined up government’ and the computing requirements which may facilitate the realisation of this vision.

The concept represents the provision of networked government services, increasingly cross-agency services. Thus, the citizen may conduct transactions with a range of government agencies without needing to know the detail of departmental structures and responsibilities. While initiatives to improve cooperation between different tiers and agencies of government are not new, the reality of networked services provides the impetus to move this concept to the next stage.

Although the world wide web was originally developed as an information resource, recent developments in programming, by “adding basic programmability to the Web”, have led to the development of web-based business processes.

Coupled with distributed computing, these developments enable greater technical interoperability between the existing silos of single agencies or jurisdictions. Both the UK and the European Commission are focusing major efforts on developing interoperability standards to facilitate the development of ‘joined up government’.
Findings of the review: Framing the issue

Definitions
Not surprisingly, given its early stages of development, definitions of ‘e-government’ and associated terms such as ‘government online’, e-service and e-administration abound.\(^56\)

The Australian government now differentiates the earlier concept of Government Online (GoL)\(^57\) from ‘e-government’, seeing the latter as the next phase in development, moving beyond delivering existing services electronically to a “transformative change” to government services provision.\(^58\) Some writers and governments differentiate between e-administration and e-democracy, while others refer only to the delivery of services electronically.

The NOIE uses the Gartner definition of e-government, which encompasses the multi-dimensional nature of the concept:\(^61\)

“The transformation of public-sector internal and external relationships through Net-enabled operations and information and communication technologies to optimise government service delivery, constituency participation and internal government processes”

whereas the definition used at the website of the European Commission’s e-government research and development program introduces a sense of the transformative change which must underpin any deployment of e-government:\(^62\)

“eGovernment is the use of Information and Communication Technologies in public administrations combined with organisational change and new skills in order to improve public services and democratic processes and strengthen support to public policies.”

By contrast, the NSW Government employs a more focused definition, describing eGovernment as “the use of Internet technology to deliver Government services”\(^63\).

The different definitions at least partially reflect the timing of their creation in the evolution of e-government.

Frameworks
A range of analytical frameworks is being developed, against which to consider and evaluate development in e-government.

Typically, these frameworks break e-government initiatives into stages in development.\(^64\)\(^65\)\(^66\)\(^67\). For example, the NSW Audit Office, in assessing the NSW Government’s performance, identified the following five stages: “information publishing; publishing and basic interactivity; transactions; interactive/external integration; government transformation.”\(^68\) A fuller list of the stages of maturity appears in Attachment One.

Usher\(^69\) takes a different perspective, breaking the concept down into six ‘strands’ of e-government, described by the nature of the relationship with the user:
“e-service – the interface and relationship with customers
e-commerce – cash transactions and procurement
e-policy – informed public interest decisions
e-democracy – political dialogue with citizens and communities
e-management – improved management of people, organisations and resources
e-infrastructure – the technical bits that deliver the above”.

Although there is recognition that e-government is ‘transformational’, as yet the shape of this ‘transformed government’ is only roughly sketched. As recently as 2002, Kost\textsuperscript{70} noted that many governments still felt that e-government implementation was just making services available via the web, although leaders in e-government development such as the UK are exploring the transformational possibilities of ‘joined up government’, as discussed on pages 17-18 of this report.

**E-government in Australia**

Australia is considered one of the most highly developed countries in terms of e-government, with several analyses\textsuperscript{71, 72, 73, 74} rating Australia’s achievements highly.

There is a strong focus by both the Australian and New South Wales governments on electronic service delivery rather than e-democracy\textsuperscript{75}, though both signal the potential for change beyond improved services. Both governments also acknowledge that e-government initiatives are complementing rather than replacing traditional government service delivery\textsuperscript{76, 77}.

**Australian Government**

In 1999, the Australian Government released the following mission\textsuperscript{78}, articulating its view of the significance to Australians of the ‘information age’.

“To ensure that the lives, work and well being of Australians are enriched, jobs are created, and the national wealth is enhanced, through the participation of all Australians in the growing information economy.”

The mission is underpinned by guidelines on equity of access; the role of government in creating the right environment, including training and regulatory framework; acknowledging the lead role of the private sector; and a recognition that Australian initiatives will develop within a global framework.

NOIE is the office charged with responsibility for the development and coordination of advice to the Australian Government on information economy issues and advocates structuring e-government around the consumer’s perspective rather than government functions. As well, departments are developing their own, individual online presence. A major impetus for e-government deployment comes from opportunities for cost savings\textsuperscript{79}.

Although the achievements of the Australian Government have been recognised, with about 60% of federal “program outputs” now available online, NOIE observes that to date, the services provided have been relatively ‘immature’\textsuperscript{80}, with most agencies focusing on information provision and downloadable forms, for example. This finding supports the view
of the Canadian Library Association (CLA) that increasingly sophisticated demands lie ahead for libraries.\footnote{71}

\textbf{New South Wales Government}

The strategic agenda for the NSW Government focuses on increased efficiency for the public sector and improved service delivery for the community rather than on e-democracy. Articulated in \textit{connect.nsw}\footnote{82}, the NSW whole-of-government strategy encompasses four strands:

- integrated government through a common infrastructure and sharing information between agencies
- electronic delivery of services
- encouragement of e-commerce across the state to support economic development
- linking communities with a view to minimising impact of geographic or social isolation.

Of these strategies, the first two strands are most relevant to the issues under review in this paper. The infrastructure development seeks to increase access points and delivery mechanisms and explicitly mentions NSW.net as an example of enhanced infrastructure needed “to access government information and services”\footnote{83} with a key benefit being the “costs of government are reduced through sharing a common information infrastructure”\footnote{84}. It is pleasing to note research findings which indicate that this kind of investment is paying off. In the USA, Moore et al have found that people from lower economic groups “are using the library computers”\footnote{85}.

A 2001 performance audit report noted that the NSW Government had made most progress in the area of electronic service delivery and noted that development in the reengineering of business processes has been limited\footnote{86}.

\textbf{Local e-government}

Singh et al observed in 2001\footnote{87} that although governments at all levels have embraced electronic service delivery, the rollout is less extensive in local government. In Australia, not unexpectedly, the situation varies from state to state.

In New South Wales, the focus has been on getting the technical infrastructure into place and local councils online. The Local Government Association and the Shires Association, funded by the Commonwealth Networking the Nation fund, established \textit{Online Action} in 2001. The aim of the initiative is to extend online local government services, enabling local councils to “provide services more effectively to … communities using electronic means”\footnote{88}.

Initially targeting services in country NSW, the project is still in the early stages of e-government development, with a focus on rolling out basic tools for web publishing and “investigat[ing] and scop[ing] more complex, interactive and integrated service delivery applications”\footnote{89}. The second stage of the project will involve implementing e-service delivery, with priority attention to transactions such as council requests and bookings, library services, payments sections and inspectorial services\footnote{90}. 
Action on implementing local e-government in NSW is clearly underway. While the need for a strong framework for this implementation has been recognised, incorporating a governance structure, a range of policies, principles and standards and a change management strategy, there appears to be little opportunity for stakeholder consultation about the implications of this implementation.

Neither the Department of Local Government website nor that of the Local Government Association and the Shires Association provides a forum for discussion of the issues, neither do any policy statements released by either Association during 2002 and 2003 make reference to what the NSW Audit Office refers to as possibly “one of the most important public policy issues of our time”.

This situation contrasts to Victoria and the UK, for example, both of which situate local e-government in an overall e-government context, providing access to key policy and strategy documents, examples of best practice and a range of links.

All local government areas, regardless of their stage of development, will have to cope with a range of complexities. These complexities, notes La Vigne, include a “lack of a shared, reliable computing and network infrastructure; goals that are too ambitious for the resources available; human and organisational resistance to change; organisational, programmatic, technological, and legal complexity and overlapping or conflicting missions among participating agencies”.

**E-government use in Australia**

As use of the Internet grows, so does use of government websites and electronic services. The Australian Government reports significant success in achieving online service provision, although the most frequently available services are information-related, that is, in the early stages of the development model.

Thirty four percent of home Internet users in Australia accessed government sites in March 2003, an increase from 27% in June 2002. In April, 2003, NOIE reported over 80% of Internet users also use e-government services, with demand expected to increase by up to 30% to April 2004. Areas nominated for growth are health, taxation and community support services.

**E-government overseas**

Descriptions of the different approaches taken by governments overseas can be found in reports by Muir and Oppenheim and the CLA and so are not repeated in detail here. Most implementations are still in the early stages of maturity, with the most straightforward transactions targeted for web service. This stage of development necessarily leaves more complex transactions to be handled by staff, either face-to-face or over the phone.
Summarised below, for comparative purposes, are the e-government strategies of several leading countries.

**United Kingdom**
The UK Office of the e-Envoy states its primary goal is to “improve the delivery of public services and achieve long term cost savings by joining-up online government services around the needs of customers”\(^{103}\).

Four overarching principles govern the implementation of e-government in the UK:
- citizen-focused government – organised around citizens and their needs rather than government structures
- accessible services – using a range of channels (electronic and human)
- inclusiveness – so all citizens will have equal access
- managing information – so that valuable knowledge and information can support “better policy making, better service delivery and more efficient working”\(^{104}\).

**United States of America**
Extending and expanding e-government is emphasized in President Bush’s Management Agenda, initiated in July 2001. The focus of this program is to “make better use of information technology (IT) investments to eliminate billions of dollars of wasteful federal spending, reduce government’s paperwork burden on citizens and businesses, and improve government response time to citizens”\(^{105}\). A dual implementation approach is being taken, with public sector IT projects embracing the principles of e-business and shared IT across agencies with a citizen-centric approach.

**Europe**
The European Commission sees e-government as “the use of Information and Communication Technologies in public administrations combined with organisational change and new skills in order to improve public services and democratic processes and strengthen support to public policies”\(^{106}\).

**Canada**
Canada has been recognised as the world leader in e-government for the third consecutive year\(^{107}\).

The Canadian Government On-Line initiative aims to “use information and communication technology to provide Canadians with enhanced access to improved citizen-centred, integrated services, anytime, anywhere and in the official language of their choice”\(^{108}\).

Dual guiding principles frame the Canadian e-government deployment\(^{109}\):
- organising services and information around the needs and expectations of citizens – providing accessible, easy to use, citizen-centric services which are secure and deliver time and cost savings to Canadians
• taking a whole of government approach – with central coordination across government and collaborations between departments, agencies, other jurisdictions and the private and not-for-profit sectors.

**E-government Use Overseas**

Statistics on use of e-government services in other countries show that the UK is lagging behind other Western countries in this area, with only 15% of citizens reporting use of e-government services in 2001\(^1\). Comparative figures on e-government use elsewhere included America (37%); Canada (45%) and Japan (18%).

Frequently used government e-services in the United States include\(^1\):

- change of address or status
- reservations for health care
- car registration and driving licence renewal
- voting remotely
- access to elected representatives
- paying tickets and fines.

In Europe, highly developed services are in the area of ‘income generating services’, such as taxes, and registration services, such as cars or new companies\(^2\). A survey on quality and use of public e-services in Europe notes libraries are among the most highly used\(^3\).
Findings of the review: Public libraries and e-government

There are two distinct though related ways to view the issues surrounding public libraries and e-government.

Firstly, public libraries as government-funded services clearly deliver e-services in their own right, providing electronic access to information and resources, including government information. In a sense, this electronic service delivery is an extension of what libraries have always done.

The European Commission\textsuperscript{114} has agreed on a list of 20 “basic public services” for which e-government implementation will be benchmarked. Public libraries have been selected as one of the 12 ‘services to citizens’ to be benchmarked and are the most heavily used of the twenty, with 50\% of users being online\textsuperscript{115}.

There is however a second way to view the relationship between public libraries and e-government. As the physical barriers between service providers break down through web service implementation, as government jurisdictions and agencies are ‘joined up’, some public libraries are becoming involved in government services other than information provision. In this respect, they can be seen to be moving beyond the traditional role of libraries as providers of information.

Public libraries and e-government – more of the same?

Much of the literature approaches public libraries and e-government using the first perspective noted above. For example, a report on local e-government by consulting firm, SAP, recognised public libraries as e-government service providers and gave examples of best practice. These are examples of ‘traditional’ library services: getting access points in place; providing links to local government web pages and providing training in ICT skills\textsuperscript{116}, a perspective also shared by CGE&Y in their assessment of public libraries as e-government service providers\textsuperscript{117}.

The CLA proposes public libraries provide “public access to the e-government or GOL service”\textsuperscript{118} but the list of elements to be part of that service contains no new services: providing computers, help for clients to locate information, training ICT skills and links to government information. For Canadian public libraries however, even this will require a “change and transformation” in approach\textsuperscript{119}.

This also appears to be the view of the American Library Association (ALA). In a briefing paper to the Congressional Internet Caucus Advisory Committee, the ALA\textsuperscript{120} advocates a strong role for libraries in e-government albeit generally along the traditional lines of providing information, training in information literacy and Internet access points. However the submission also notes:
“One can see the evolution from ‘merely’ providing online [...] to that next step of providing actual transactions online (… reserving and ordering books … to submitting applications to local government agencies)

Public libraries and e-government – something quite different?
This view of a possible evolutionary path is shared by others. For example, in 1999, launching the white paper Modernising Government, the British Public Service Minister acknowledged that the government’s vision was for citizens to be able to “submit government forms, make payments to government, speak to advisors … and find out about services from a supermarket, library, council office, post office, bank or High Street outlet”121.

The UK Museums, Libraries and Archives Council (MLA; formerly known as Re:source) advises the Government on strategic policy issues and priorities for the sector, and clearly situates libraries as “central to the delivery of electronic government”122, a view shared by UKOnline123. The MLA Council’s 2003 – 06 Action Plan124, however, confirms the view that it is early days in the shaping of what this strategy might mean for public libraries, with an emphasis on deliverables in the short term which explore and identify ‘best practice’ and useful local models for e-government.

Froud and MacKenzie125 are among the few who are writing about the impact of e-government on public libraries. Arguing that public libraries exist to further the agenda of their parent body, they believe that the evolution of e-government is an environmental change which provides significant opportunity for public libraries to stake out a stronger position for themselves and demonstrate their value to their local community.

Guidelines formulated by PULMAN (Public Libraries Mobilising Advanced Networks), under the European Commission’s research program for a User-Friendly Information Society126 observe the traditional role of public libraries in providing free and equitable access to information. The PULMAN Guidelines also advocate expanding this traditional role in the 21st century to include an active role in e-government developments. As an example, the Guidelines’ authors suggest libraries act as “access points for e-government, and electronic voting through Internet provision and guidance, providing access to local and national government information, schemes and plans; providing space and support for e-government related activities”, among other activities.

Public libraries and e-government – in practice
No overall framework or action plan has yet emerged to provide practical guidance for public library involvement in e-government. Both Australia and the UK have invested heavily in getting the building blocks of Internet access in place in public libraries and are seen by other countries, such as Canada, to be models in this respect.

For example, the UK Government does not advocate any ‘one best way’ for local councils to provide e-government services. The body charged with developing and championing the development of local e-government in the UK (www.localegov.gov.uk), identifies a range of ‘access channels’ which might be used by citizens to interact with local government. None of these explicitly includes public libraries, although the ‘one stop shops’ are sometimes co-located and staffed by councils in public libraries. One example is in Lewisham, where the library houses the Borough information centre; a second is Tameside, which provides Intouch with Tameside, a service through which library staff answer questions, take applications and bill payments.
Emerging issues and implications for public libraries

Although public libraries in a number of countries are active in e-government implementations, few academics or practitioners are writing about the experience. Research carried out for the CLA in 2002 found “no in-depth treatment of public libraries as a source of GOL”\(^\text{128}\) and attempts to partially address this neglect through identifying ‘good practice’ in public libraries.

Government statements about the significance of e-government and the level of successful implementation are generally positive evaluations although studies on e-government reveal a number of concerns relating to its deployment. The following section of this report therefore considers general issues raised in the literature of e-government and then discusses their potential impact on public libraries.

The digital divide

Even in countries with relatively advanced e-government implementation, a number of citizens do not have Internet access at home. For instance, 46% of people in Australia are in this situation and increasing home or work access to the Internet will not in the short term close the digital divide\(^\text{129}\).

As well as the lack of home or work connectivity, other barriers contribute to the creation of the digital divide, limiting Internet use and therefore e-government use. Consistently identified in the literature\(^\text{130} \)\(^\text{131} \)\(^\text{132} \)\(^\text{133} \)\(^\text{134} \) are:

- physical accessibility – the number and location of access points; slow and unreliable connections
- accessibility issues relating to lack of necessary ICT-related skills
- some groups in the community being ‘left out’ of the information economy.

For example, particular concerns reported by respondents\(^\text{135} \) to a NOIE survey into demand for e-government highlighted problems with searching websites, such as poor search capabilities, and difficulty finding the service. These problems may be related to poor web design and useability or they may be traceable to a lack of skills in using ICTs or in seeking information. The study further reports ‘inhibitors’ to further usage of e-government include ‘incomplete information’ and limitations in ‘discoverability’.

A specific inhibitor for regional users are “slow or unreliable connection, the cost of computers, libraries only being able to provide limited access”\(^\text{136} \).

Of particular concern are those groups in the community designated as “key disadvantaged groups”\(^\text{137} \) by the ABS. These groups are most likely to be targeted by government intervention programs but are least likely to have home or work Internet access.

These figures and analyses suggest that, for some years to come, there will be members of the community who will access the Internet and e-government through an intermediary of some kind.
Intermediaries

Intermediaries may be defined as organisations that link citizens and government in ways which add value (rather than a barrier) to the transaction process.\(^{138}\)

Although a single portal or a one-stop shop for services and transactions is the stated goal of many governments, a report from Gartner suggests intermediation “will increase rather than diminish in importance”\(^ {139}\), noting the traditional intermediaries such as post offices or banks will be joined by new ones, such as utilities and media and telecommunications companies. This assessment does not directly mention public libraries as a potential intermediary.

Another Gartner research note reported on a study which found that 65% of respondents felt that intermediaries will play “an increasingly important role in the advent of e-government services”\(^ {140}\). The researcher suggests this is likely because citizens are in contact with these intermediaries more often than with government, that is, for citizens visiting a post office once a week are likely to find it more convenient to do other government business there than make a separate visit to the local one-stop government shop. This view is shared by Singh, et al\(^ {141}\), although clearly there are some groups (for example, social service recipients) for which interaction with government services is a frequent occurrence.

Di Maio in the same report\(^ {142}\) also observes that although this concept of the one stop shop is popular with governments, Gartner has not seen evidence of “plans, funding mechanisms and management structures” to make this happen, again a conclusion reached by Singh et al\(^ {143}\).

In the UK, intermediaries are acknowledged by the Government as key players in e-government roll-out. The Office of the e-Envoy feels that the UK goal of ‘joined up government’ is a challenge which cannot be met by government alone and that a ‘mixed economy’ is a desirable model for the delivery of e-government services.

The UK experience, reported in a 2001 KPMG survey, provides some indication about community preference when using intermediaries to access e-government services at all levels of government. Leaving aside the two most preferred channels for service (the one stop shop, presumably managed by government or council, or the Internet\(^ {144}\)), other preferred access points for face-to-face transactions were post offices, preferred by 11% of respondents, and public libraries, preferred by 9% of respondents. A follow up survey in 2002 reported that while post offices maintained their ‘popularity’ (10%), preference for public libraries had dropped to 3%\(^ {145}\). One possible reason for this drop is that citizens are more likely to be doing business in post offices than in libraries.

An issue not yet widely canvassed in the literature is the question of how effective intermediaries are in delivering government services. On the face of it, intermediaries who are not working regularly with government services are likely to be less knowledgeable about those services than dedicated staff.
Ongoing need for human intervention

KPMG, analysing the UK Government’s progress, sees a clear indication that a multiplicity of channels best services the varied preferences of different groups in the community, with human contact still preferred by 31%\(^{146}\).

Clearly, some government services are not appropriately handled over the web. However, even those services most appropriate to web services will sometimes need human intervention\(^{147}\) although it appears governments have done little planning to ensure that timely and effective intervention takes place.

Resourcing e-government

The “complex realities” of fully and effectively implementing e-government are being recognised\(^{148}\). Investment is needed, in infrastructure, software, skilled staff, and ongoing training. Singh et al\(^{151}\) observe that “unrealistic assessments were initially made of short-term savings that now appear to be unachievable”.

In most countries, the initial approach has been to resource e-government pilot projects from start-up project funds. For example, in the UK, over three years, £500 million is being made available to local councils to encourage e-government initiatives. At this stage, it is not clear what will happen when the start-up funds cut out.

The Australian experience with online access centres, summarised in a recent discussion paper\(^{152}\), provides clues to the fate of government initiatives funded in this way. Without an ongoing revenue stream, online access centres are often not sustainable – unless the new service deliverer feels they have to pick up the ongoing cost so the community is not disadvantaged.

Kost and Kolsky\(^ {153}\) try to identify the true costs of implementing self service via the web for governments. While noting that the visible costs such as hardware and software acquisitions are usually costed, they argue that a number of ‘hidden’ or indirect costs are not accounted for. For example, a web service is an additional channel for government service delivery and so is an additional cost. Governments have acknowledged the desirability of multi-channel service provision and although costs in existing channels can be minimised, these channels cannot be closed down. Strategies to minimise costs may include closing offices or combining them with other service points.

The issue of cost shifting between levels of government has been recognised in Australia as a “real and serious concern for local government especially when added to the apparent mismatch between growing responsibilities and limited resources”\(^ {154}\). Unfunded “changing responsibilities and cost increases”\(^ {155}\) were identified as one way in which cost shifting has occurred, with libraries noted as one of five major areas of cost shifting\(^ {156}\). In particular the advice of the NSW country Public Libraries Association was noted, on “the substantial costs associated with providing online and electronic information resources … as a cost shift from both the State and Federal governments”\(^ {157}\).
While in a practical day-to-day sense, resourcing is a major issue for public libraries, Fitzgerald and Savage suggest, in the context of the role of libraries providing access to the Internet, “there has been a tendency to view this purely as a funding issue, however it is as much a structural and decision-making issue as an evolving reality”.

Conclusion

Given the current early state of e-government development, the future is necessarily still unclear. “Everything is in a state of flux: a single strategy for achieving the objective of good e-governance does not exist” and there is a lack of clarity in the “current level of knowledge”.

In this early stage of development, concerns are being expressed about the future of e-government. For example, the nature of the public sector culture may inhibit e-government roll-out. Implementation in the UK may be “reproducing Whitehall online” and perhaps a fully-joined up government sector is an impossibility. Nonetheless, e-government will continue to develop in some form or another “into a sophisticated service with high user expectations”.
Now the easy steps of publishing information on the web have been taken, governments must grapple with more challenging questions, such as the implications for privacy legislation of ‘joined-up’ government, with the associated necessity of sharing information between agencies. For the years to 2007, Di Maio sees a focus on integration and greater transparency.

The existence of the digital divide suggests that, for some years to come, a significant segment in the community will rely on intermediaries for access to the Internet and to e-government. Surveys continue to find that citizens experience difficulty with obtaining information and conducting business via government websites.

The use of intermediaries, coupled with difficulties in using e-government services and the ongoing need for human intervention in government service transactions, suggests that public libraries will feel an increasing impact from e-government implementation.

Providing access to government information online can be seen as an extension of a traditional public library role. However, with increasing amounts of information available on government websites, it is reasonable to suggest that demands on public libraries are also increasing. As well some public libraries are moving beyond their traditional role as providers of information and becoming involved in handling government transactions. An expanded role for libraries in Australia was proposed by NOIE as long ago as 1998 and public libraries have argued that funding for this expansion has not matched the additional responsibilities being intentionally or unintentionally transferred to this sector.

Despite what may be profound changes in community expectations of public libraries, there appears to be little by way of formal consultation or liaison taking place between levels of government in Australia about how best to manage and fund this expanded role. For public librarians to shape the future of e-government and influence the effect it is having on their services, a coherent strategic response is needed.
Attachment One: Selected Frameworks for Analysing E-government

1. Demos’ “Four distinct stages of e-government”
   - Information
   - Interaction
   - Transaction
   - Integration


2. From Cap Gemini Ernst & Young:

<table>
<thead>
<tr>
<th>Sophistication</th>
<th>Stage</th>
<th>Nature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Stage One</td>
<td>Information</td>
<td>The information necessary to start the procedure to obtain this public service is available online</td>
</tr>
<tr>
<td></td>
<td>Stage Two</td>
<td>One way interaction</td>
<td>The publicly accessible website offers the possibility to obtain in a non-electronic way (e.g. by downloading forms) the paper forms to start the procedure to obtain this service</td>
</tr>
<tr>
<td></td>
<td>Stage Three</td>
<td>Two way interaction</td>
<td>The publicly accessible website offers the possibility of an electronic intake with an official electronic form to start the procedure to obtain this service. This implies there must be a form on authentication of the person requesting the service.</td>
</tr>
<tr>
<td>High</td>
<td>Stage Four</td>
<td>Full electronic case handling</td>
<td>The publicly accessible website offers the possibility to completely treat the public service via the website including decision and delivery. No other formal procedure is necessary for the applicant via ‘paperwork’.</td>
</tr>
</tbody>
</table>


3. DMR Consulting, building on Gartner research and cited by the NSW Office of Information and Communications Technology:
   - Presence
   - Interaction

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5. Accenture:
   • Online presence
   • Basic capability
   • Service availability
   • Mature delivery
   • Service transformation.
