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The Value of Local eGovernment: a study of electronic service delivery performance measurement

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Abstract
At the local government level, where a significant number of citizen-to-government transactions occur, eGovernment can be as much a barrier as it can be an enabler for citizen access to information and services. Municipal councils need to ensure that they are effective in delivering the services that are transferred to the electronic domain. As local governments increasingly turn to ESD, it is essential that they put in place performance measurement processes that ensure that they are effectively in achieving their desired aim. Public accountability particularly for more efficient and effective service delivery requires performance measures incorporating both financial and non-financial elements. The substantial reforms to the local government sector, however, brings with it a risk that councils will turn to eGovernment with the primary aim of reducing internal costs. This research examines the progress local governments in Victoria, Australia have made towards utilising the Internet to enhance the delivery of services and the methods they use to measure performance. Using a case study of two councils, the research found that councils concentrate more on the cost benefits of ESD rather than on the quality or effectiveness of the service. It also found that council staff do not incorporate on-going evaluative processes in changes to ESD. Moreover, it found that staff are often reluctant to undertake internally initiated reviews, and often rely on easily quantifiable measures such as hits or visits as justification for ESD.

Keywords
Local government, Municipal councils, eGovernment, Performance measurement

INTRODUCTION
Throughout the last two decades, local government throughout modern Western democracies has been subject to far-reaching reform programs as part of a broader public sector reform drive (Sanderson, 2001). In the 1970s, economies experienced simultaneous high inflation and unemployment and the debts of governments grew for the first time since WWII. Importantly, however, as governments grappled to provide services, citizens started to question the ability of large pervasive government to address social and economic problems (Feng, 2003; Sanderson, 2001). The notion of the ‘welfare state’ has gradually been replaced with a generic policy amongst Western governments designed to reduce the size and scope of the public sector and to reduce the cost of services which remain under their control. Since the 1990s the public sector in Australia has experienced a sustained program where many services have been privatised, or forced to compete with private providers. Governments have restructured the public sector to provide information and services that is more responsive to needs of
customers and they have put in place a regime of management techniques with a stronger focus on performance measurement (Kloot, 1999; Sanderson, 2001).

In many respects, it is not surprising that eGovernment amongst all levels of government can be seen as a natural progression of this new form of public sector ‘managerialism’, or New Public Management (NPM). E-government in varying ways has become the vehicle upon which many of the previously none achievable objectives of NPM have been attain. According to Feng (2003), the trend towards eGovernment represents a continuation of previous public sector reforms but with a substantial increased role for information and communication technologies (ICTs). In Australia, one of the leading countries in eGovernment (United Nations, 2003), the major focus of eGovernment has been on reducing costs (SOCTM & I&DeA, 2002) despite the many other benefits that are obtainable from its implementation.

This paper builds on previous research on the progress local governments in the state of Victoria, Australia have made utilising the Internet to deliver traditional services, improve governance and enhance community contact. In particular, it examines the strategies local councils use to measure the performance of eGovernment initiatives and the extent to which these measures have brought about change.

The paper starts with an introduction to the literature on eGovernment and then examines the range of services provided by local governments. This is then followed by a broad discussion of performance management in government. The paper reports on the analysis of a case study of two councils identifying measures that were used by those councils to determine the performance of their electronic service delivery (ESD). It concludes with a discussion of issues and future research.

ELECTRONIC GOVERNMENT

The advent of the Internet has changed the perception of what governments can undertake with ICTs. The Internet is unique in that it may take many different forms of communication simultaneously (telecommunications, broadcasting and publishing) and converge them as one (McKnight & Bailey, 1997). The main benefits of this larger network is not found in technical solutions to older problems, but that it facilitates new applications enhancing information, involvement and economic activity.

If eGovernment is interpreted as embracing all forms of ICTs used by government then eGovernment is not a new concept. Over the last 20 years, State and Federal governments utilized earlier forms of electronic commerce such as Electronic Data Interchange particularly in specialist transaction areas such as electronic tax lodgement. Similarly, the focus of eGovernment research has often centred upon transactions between identifiable customers (citizens and business enterprises) on one side, and a multitude of independent government organizations in charge of registering, issuing or collecting items or money on the other (Lenk & Traunmüller, 2002). According to Lenk and Traunmüller (2002) it is in the interest of many governments to draw attention to this side of eGovernment. Many of the early eGovernment policies highlighted the merits of electronic technologies by drawing attention to situations where citizens suffered inconvenience and high compliance costs in dealing with public bodies and promised better service to citizens (Multimedia Victoria, 1998).

Yet eGovernment challenges the traditional relationship between public authorities and citizens; it provides the opportunity for government to rethink how it configures and provides daily services, build different and deeper relationships with the community, and devolve power and responsibility to regions and local groups (Kearns, 2001). In a traditional sense, many of the functions of government do not necessarily solely revolve around the provision of services to individual customers. Although better service is of great importance particularly in local government, in many cases the major objective of the underlying activity may be to fulfil some civic duty and engage the community.

“The principal activities of public administrations in the field of policy execution can be described as processes of decision making that involve many contacts with citizens, enterprises, interest groups, etc. Often they concern situations where members of a society are conferred rights … at the expense of others” (Lenk & Traunmüller, 2002).

Governments are unique with respect to online activity in that they have the power to dictate rules and regulations, and the possibility to create a legal obligation (Warkentin, Green, Pavlou, & Rose, 2002). In many dealings with governments, citizens have no choice such as to submit file tax returns or town
planning permits, or pay for a garbage service, compared to the myriad of choices without obligation present in commercial electronic commerce. Moreover, electronic government in contrast to over-the-counter government services is characterized by a number of key factors that have the potential to change the face of government to the public but require the trust of citizens. These include

(i) the extensive use of communication technology
(ii) the impersonal nature of the online environment
(iii) the ease by which information can be collected, processed, and used by multiple agencies
(iv) the implicit uncertainty of using an open technological infrastructure for transactions, and
(v) the newness of the communication medium. (Warkentin et al., 2002)

These factors highlight both the positive and negative aspects of eGovernment. While eGovernment may encourage the active participation of citizens in democratic processes, it may disenfranchise those who choose not to or who are suspicious of web-based delivery. EGovernment can be as much a barrier as an enabler unless governments are effective in delivering those services. As governments increasingly turn to the electronic delivery of services, it is essential that they put in place performance measurement processes that ensure that they are effective in achieving their desired aim.

AUSTRALIAN LOCAL GOVERNMENT SERVICES
In 1901 the Australian Commonwealth Constitution established a Commonwealth government with specific powers and six independent State governments with responsibility for all those areas of authority not granted exclusively to the Commonwealth. In a variety of ways over the years the Commonwealth has progressively increased its power over the States particularly in the important area of finance. The Commonwealth is now the only government in Australia able to levy company and income tax, excise and customs duty, and sales tax.

Australian municipal councils, which have no legal recognition in the Australian federal Constitution, are under the authority of their respective state governments. Prior to World War II their major role was in the provision of physical infrastructure such as road maintenance and garbage collection. In the last twenty years the role of municipal councils has expanded to include social services and community welfare, economic development and environmental management. Despite their apparent lack of independence, Australian local governments are becoming increasingly important in the grassroots implementation of policy and the provision of services.

The changes in the responsibilities of the various tiers of Australian government over the years has resulted in an overlap in many policy areas and frequent disputes about funding and authority as summarized in Table 1.

<table>
<thead>
<tr>
<th>Level of Government</th>
<th>Revenue</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonwealth (Federal)</td>
<td>Income and Company Tax</td>
<td>Foreign Policy</td>
</tr>
<tr>
<td></td>
<td>Excise and Customs Duty</td>
<td>National policies such as defence and immigration</td>
</tr>
<tr>
<td></td>
<td>Sales Tax</td>
<td>Education, health and social welfare and large infrastructure</td>
</tr>
<tr>
<td>State</td>
<td>Major tied and untied grants from the Commonwealth. Other revenue from stamp duty, motor registration, land tax, lottery and gambling revenue</td>
<td>Education curriculum and general school operations Maintenance and general operation of hospitals Infrastructure projects</td>
</tr>
<tr>
<td>Local (Municipal Councils)</td>
<td>Major tied and untied grants from the State and Commonwealth Revenue supplemented with property taxes, parking fines, pet registration, and garbage collection charges</td>
<td>Town planning and property development Road maintenance Garbage collection and recycling Meals on Wheels and services to the elderly</td>
</tr>
</tbody>
</table>

Table 1: Roles and Responsibilities of the levels of Australian governments
Local governments are unique entities, directly accountable to ratepayers who are increasingly influenced by this level of government. Previous research has shown that this sector has been slower to adopt eGovernment compared to higher levels of government (Shackleton, 2002; Shackleton, Fisher, & Dawson, 2004) yet, arguably, citizens would benefit highly from local electronic service delivery as it is the sector where they are mostly involved in over-the-counter transactions (SOCITM & I&DeA, 2002). In the State of Victoria there have been programs supporting moves by local councils to electronic service delivery. The Electronic Service Delivery Project (ESD Project) in the late 1990’s involving MAXI as part of the State governments larger Victoria 21 tried to force councils to join but failed to attract more than a handful of local councils. The Victorian Local Government Online Service Delivery Project (VLGOSD project) of 2001-2002 provided support to all councils together with money for rural and interface councils and has enabled all councils to provide some form of online delivery. Importantly, before councils could receive funding under VLGOSD they were required to develop a strategic plan that incorporated performance criteria. In addition, other programs such as Best Value require councils to undertake performance reviews with the aim of modifying and improving future online service delivery.

LOCAL GOVERNMENT SERVICES PERFORMANCE MEASUREMENT
The main objective of many of the modernization agendas at the local government level in a number of countries, including Australia, has been to engage communities to improve services and general well being. In order to achieve this local authorities have had to:

- Provide high-quality information and services subject to ongoing evaluation backed with new ICT particularly through eGovernment initiatives.
- Engage local people to building trust. There are key pressures on local authorities for establishing a clearer user or customer focus and consulting regularly with local people about the design and delivery of local services.
- Provide effective vision and leadership to the community. This is particularly evident in the requirement for local authorities developing community strategies with the express aim of improving the quality of life of its citizens (Beynon-Davies & Williams, 2003).

While improved information and services are advantageous to residents who are consumers of services, there is now an increasing desire for local government to be more responsive to the needs of their community. The Victorian State Government, which has adopted Best Value principles similar to those in the United Kingdom (DTLR, 2002), has four e-government pillars {Multimedia Victoria, 2002 #101}:

- Substantial improving support and services to citizens
- Providing better community engagement and more effective democracy
- Using innovation in finding new opportunities; and
- Creating a framework for ongoing reform within government.

These objectives include elements of both efficient and accountable management, as well as a desire for improved participatory democracy. Nevertheless, this objective is often seen as the final stage in a transition to the Internet and it has led Steyaert (2000) to observe, “for local government, aspects like computerization and the often connected automation of the work process are considered more important for daily work than the creation and use of an Internet web site”(p.7).

As part of these reforms, local governments have had to reframe their organisations to take account of the changes and expectations in the community and to accommodate competition practices (DTLR, 2001; Jones, 1993; Kloot, 1999; OECD, 1996). “Gone are the days when local governments could proclaim their uniqueness and comfortably declare their immunity from comparison” (Ammons, Coe, & Lambardo, 2001). At both a State and Commonwealth level, local governments in Victoria are involved in extensive reporting and comparisons through Best Value and Annual Audit reporting. {Multimedia Victoria, 2002 #101; MAV, 1993 #98; Department of Transport and Regional Services, 1999 #27}

Accountability to both governments and their communities is measured by performance measures incorporating both financial and non-financial elements. There is a risk, however, that accountability will be seen exclusively in financial terms, with effectiveness and quality of service avoided because they cannot be quantified (Fowles, 1993; Kloot, 1999). Performance information is necessary for the discharge of accountability but poses a number of questions for government:

- How can we determine when government is successful?
- Is cost the most important metric or should it be
• What criteria should be used?
• What standards and performance measures are acceptable?
• Once we know we have the information, how is the information to be used in a way that it accounts for the decisions made, the resources consumed against the benefits obtained? (Berstein, 2000)

The move from Compulsory Competitive Tendering (CCT) to Best Value moved the emphasis from cost as the major criteria towards incorporating efficiency and effectiveness in the overall evaluation of services (Feng, 2003). This largely exploratory research looks at the extent to which local government is undertaking on-going performance measurement of the delivery of electronic services.

RESEARCH METHODOLOGY

Research Objectives
The objective of this exploratory research is to investigate performance measurement practices of municipal councils in Victoria, Australia. The research involves interviews with staff from two case studies of councils.

Case Study
The two councils chosen for the case study research were each at various stages of eGovernment implementation and represented different demographic parts of Victoria. Work was done intensively with one of the councils where fourteen interviews were conducted with a range of council staff such as section managers, communications personnel, web co-ordinator, councillors and associated council support staff. As the majority of the research was done in that venue the report on the research will concentrate on the progress that council has made towards eGovernment.

The in-depth interviews were conducted were typically 45 minutes to an hour in length and explored a range of issues including its web development strategy, implementation issues, and evaluation practices. Documents were collected and collated, while detailed observations were made both of formal and informal meetings and other settings. Further interviews were done earlier this year. Two interviews were done with staff from the other council in an effort to provide some triangulation of results and to identify similarities and differences.

Council N was the major council in the case study research and is located on the fringe of Melbourne. It is classified as an interface council because most of the population is concentrated in a number of large suburbs but the council must service a sparsely populated rural constituency. Historically the community has a strong commitment to environmental protection, arts and local history and is actively involved in council governance. The council serves 20,600 households, has an annual income of $35 million, but only one full time Web developer/IT/business analyst, and a part-time Communications manager. Some IT staff work on separate web-based projects such as GIS systems. Although comparatively small it has made significant progress in its eGovernment strategy. Since its first introduction in 1999 the council has not only changed the format and content of their site but on two occasions they have completely replaced the old web page.

Council M is a metropolitan council that covers a number of affluent inner suburban areas of Melbourne as well as poorer working class suburbs with a high level of ethnic representation. It has 50,000 households, an annual revenue of $45 million and five Web/IT support staff incorporating business analysts, web editor, editor in the Communications section. The council has a web page for several years and it uses content management package and payment software.

A limitation of the research is the small number of cases and its focus on councils with more mature web sites. The exploratory research focused on performance measurement as part of the ongoing review of ESD as earlier research had found that many councils launch into ESD because of external pressures without assessing the possible benefits (Shackleton, Fisher, & Dawson, 2003; Shackleton et al., 2004). As discussed later, it is clear from the analysis that there is a need for future research involving more cases from a diverse range of councils.
Case Study Analysis

Attitude to the Web

It is important to emphasize that there was a general ethos amongst staff in both councils that the web-based delivery of information and services would be of benefit both internally to the council and to citizens. The following view is typical of most interviewees:

Whatever we are doing we have to ask “Is there a reason why we are not just doing this on the web?” And often there will be. The default position should be on the web. And we must step back from that and ask, “Is it disadvantaging any groups who don’t have access in a technological and functions or is it not cost efficient in terms of our other priorities for the web”. The default position should be on the web and why isn’t there. If it is too hard then that is fine but at least we have been through it. It must be convenient for people but it may not suit everybody

In this context the following elements on performance measurement emerged from the interviews.

Measuring Cost

Despite increasing emphasis on performance, incorporating effectiveness rather than on value, representing economy and efficiency, council staff either ignored the need to undertaken any evaluation, or where it was necessary, to use it to emphasize cost reductions. Other staff equated effectiveness of ESD with cost, and in some cases staff doubted that any on-going evaluation was necessary.

At Council M, where the council had not undertaken any previous evaluations, the Web Site Manager clearly indicated that they were not interested in performance measurement:

It's one thing to go out and get an opinion about what people think should be on the web site and another thing to do it. I see them as two different concepts. We deliver the services anyway regardless, we deliver them at the front counter, we deliver them over the phone, and we mail them out forms. So what we are talking about is delivering that stuff electronically. So the community's opinion doesn't really matter, if you see what I mean. The services are delivered anyway it is just a different way of delivering it. So we are not necessarily wanting an opinion on whether they want services delivered in electronically or not.

In contrast, the Communications Manager at the Council N highlighted the importance of cost:

It cost us $30,000 to print a booklet last year, which is now on the web. We will not need to print like that in the future. Now prepare materials for the web and have a desktop published in response – that is the cost effectiveness. I don't expect everyone to use the web but our info is more informational rather than hard copy. Rubbish is not sexy – it is not to replace hard copy but to think differently about hard copy

Capped council rates and pressure from ratepayers to provide services more efficiently may partially explain why cost appears to be the most important metric. In addition, the major restructures in the mid1990s that focused on reducing costs still appears to be entrenched in the organizational culture of the councils.

Quantifiable versus Qualitative Criteria

A common feature of all councils is that the majority of staff have been in local government for many years. It was evident that the staff at the two case study councils had strong civic connections and a sense of community. Although internal pressures often placed a high emphasis on cost, the staff were well aware of the potential of the web to deliver more effective services. At the same time, the staff found it either difficult to identify methods of measuring effectiveness, or they extrapolated quantifiable measures of efficiency to include measures of effectiveness. Staff from the different areas had not determined how they were going to measure ESD in their section and seemed to be waiting for direction from others. The Chair of the Web Committee at Council N stated

It will be part of the Best Value review in each area. That should lead to a conclusion amongst others as to how customer satisfaction is going to be measured in the future and part of that is elements of the web or should be.

The most popular measure mentioned by staff was the number of hits on the web page or a component of the web page. Most staff recognized that this showed the popularity of a particular component of the page and that it was difficult to evaluate effectiveness.
Number of hits doesn’t tell you if replacing the old model. It is only whether it is a substitute for the old way.

Another staff member took the reverse view stating that the lack of take-up of a service, such as web payments, would indicate the failure of the service. Where alternatives were suggested they often related back to specific quantifiable measures in the Division such as the number of telephone calls, mail outs, customer complaints, or recording of jobs.

Citizen Engagement

While related to the issue of qualitative versus quantitative measures above, there appeared to be reluctance by staff to recognise the importance of a whole of council approach to ESD and a need to evaluate accordingly. Staff talked of the need for a council web page but they appeared reluctant to engage others outside their section, citizens or the users of their web page services in any form of interactive evaluation. Staff mentioned the need for feedback, and the importance of determining the relevancy of the information in their section, but seemed reluctant to suggest specific measures.

Some staff as an alternative to the number of hits suggested surveys. The results of surveys, however, have been discounted over the years as unreliable measures often due to unpopular results. One staff member suggested adding specific questions about the web into the annual State government audit but recognised we need to be smarter and tailor questions to piggyback onto those (in the Audit) to identify what the community needs and then deliver that.

The Communications Manager at Council N was the only one who suggested a more hands on approach engaging citizens

A very good cross section of our community come along to community fairs. I asked them what would make Council N a happy and healthier place to live. Great informal feedback. I want to educate them about what council is. I want to lift the level of respect that we have for council officers and councillors and then deliver on those expectations. Because when you scratch the surface people find it hard to articulate what they want from council. Performance measures in isolation is hard for me to do. The only thing is that we articulate, communicate, council issues concerns and work to our community. We are not ready for a web-based survey

DISCUSSION

Although Australian municipal councils do not have any constitutional recognition, their authority has increased over the decades enabling them to have considerable influence over the direction of community environments. The nature of service delivery is not an easy one for local government who are faced with many different and at times competing demands from readily identifiable citizen groups. Not only must they provide effective service but also arguably a more important objective is to engage and foster communities in the everyday decision making processes of government.

Before funding for an initiative is approved in local government, it is expected that extensive planning and documentation should be undertaken beforehand, yet in area of electronic service delivery the reverse is often the case. Moreover municipal councils appear to accept that ESD will automatically bring about improvements in economy and efficiency, and to a lesser extent effectiveness. Faced with challenges to provide more effective services in a more efficient manner, it is surprising that many types of council do not appear to be engaged in any on-going performance review of their ESD.

What is undertaken appears to be ad hoc and concentrates on definable quantitative measures that relate more to economy and efficiency than to effectiveness. Moreover, there appears to be very little cyclical review that entrenches performance measures into a process of on-going change. This aspect was noted by Sanderson (2001) who identified the failure of local councils in Britain to promote understanding and learning of performance measurement in evaluative systems. It would appear that local councils in Australia undertake reviews for mandatory external audit purposes but often fail to modify their ESD accordingly. Very few review process are initiated within a council and indeed it would appear that some staff see either little benefit arising from such an activity or they are quite parochial towards the idea. Clearly more research on performance measurement as a part of ongoing evaluation of ESD is necessary.

The study found that councils are struggling to identify measures other than web site hits or formal surveys. Future research examining other options taken by councils would be advantageous.
CONCLUSION

Local government in Australia is similar to many other western economies in that they are often the lowest level of government. They often lack autonomous powers and are usually poorly resourced. Yet of all the levels of government, municipal councils have a significant impact on the life style and environment of citizens, who they often engaged in closer relationships. Local government has been unable to escape the culture of New Public Management and they are faced with reduced budgets, increased competition and outsourcing of services, and increased accountability through external performance measurement. In this climate eGovernment has often become a vehicle upon which further improvements in the delivery of services can be launched. The case study research found that councils concentrate more on cost or efficiency of ESD rather than on the quality or effectiveness of the service. While staff appear to genuinely believe that eGovernment can improve service delivery and engage the community, they are unable to articulate how this can be shown, and they are reluctant to adopt on-going evaluative processes. The research also found that staff rely on easily quantifiable measures such as hits or visits as justification for ESD, and are often reluctant to undertake internally initiated reviews.

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