

E-GOVERNMENT FROM THE FRONT END: LOOKING GOOD OR JUST GOOD LOOKING?

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Abstract

Australia's role in being one of the world leaders in moves to e-government is widely acknowledged. Put simply, E-Government in Australia appears to be looking good and, logically such leadership in the use of ICT-assisted forms of governance is particularly apt. Australia is a nation where "size and geographical diversity... has presented the country with particular problems of communication and travel" (Smith, 1999:301). It is also the examination of these problems which clearly identify the need to examine the success of e-government innovations at all three levels of government within Australia. An overview of this larger task was undertaken in an earlier paper (see Teicher, Hughes & Dow, 2002; Teicher & Dow, 2003) and the results presented suggest moves to e-government are not uniform amongst the three levels. The initially positive finding that all 78 Victorian councils had websites was quickly replaced with the reality that most of what these sites provided was classified at the lowest levels of sophistication and largely informational only. What emerges clearly at this level of government are a number of questions about what e-government really means for the organisation embracing it. From the provider perspective we have at this stage it appears local e-government may not be very advanced but it is looking fairly good in terms of potential. The question then is, what about the perspective from the user end of these services?

Focussing on the level of local government, this paper presents results of a content analysis websites to further investigate what the implementation of E-Government actually means in terms of the public interface and access initiatives at the regional level. The results of the analysis provide further evidence of Australia being a long way from the concept of 'joined-up-government'. More importantly, there are clear indications that a much greater dept of research at the case study level is required to investigate the range of internal and external interactions - internally in terms of changing organisational structures and support services as management/worker relationships and externally in terms of changing relationships between local government and the public they service.

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E-GOVERNMENT FROM THE FRONT END: LOOKING GOOD OR JUST GOOD LOOKING?

BACKGROUND

This paper presents a small part of a larger investigation into the role of IT in the public sector in Australia. While IT and public sector reform are accepted as being inextricably intertwined, it is also clear that these new technologies are fundamentally altering the way public administration operates. The focus of the paper is the analysis of local government websites as an application of technology to their service delivery, programs and administration. It thus moves beyond the traditional quantitative view as to how many or what components of government have made the migration to the online environment to encompass qualitative features of this move. While falling short of asking the public what they want from government, this analysis does query how online delivery is being used to facilitate business and foster growth as well as developing new levels of public interaction. Simply, how and for what purposes is technology being utilized? The key questions this paper begins to focus on are:

- (i) what information is being provided?
- (ii) in which formats for?
- (iii) what purposes of?
- (iv) Which users?

These questions tap into the larger issue as to whether the public getting the electronic services from governments that it wants and how are governments actually performing? The initial application technology to internal government operations has generally seen a conversion of current documentation to electronic formats. As the Commonwealth Centre for Electronic Governance (2002) points out, e-government can involve sophisticated interactive software requiring considerable skill to design and implement but, from the user perspective, these are generally simpler and easier and thus, paradoxically, not unrecognised for what they are (Turban, McLean & Wetherbe, 2002). The simple questions from the user perspective ignores complexities to focus on the issues of what is actually delivered, what is involved in using these electronic products and the static versus the interactive features of service delivery? (Commonwealth Centre for Electronic Governance, 2002).

LOCAL LEVEL E-GOVERNMENT IN AUSTRALIA – AN OVERVIEW

Developed and developing nation governments have embraced e-government, citing its many benefits rang from lowering costs, improving efficiency and providing more cohesive and responsive services to the public, to breaking down barriers of geography, demographics and knowledge (Heath, 2000). For Australian governments at all levels, e-government is a means of improving the delivery of services, as well as easing customer access and reducing costs (ETC Electronic Trading Concepts Pty Ltd, 2000; Multimedia Victoria, 2001). At the local and regional level in particular though, the potential to enhance social interaction and community participation, provide greater access to information and services as well as linking across, between and within local communities. Overall then, what is e-government at the local council level achieving – is it the supply of electronic services directly to connected users, a cost reduction program aimed at service design and delivery, a mechanism for providing fast and direct channels for user feedback or, an enabling tool which allows public participation in policy and program development?

Despite the almost revolutionary potential for e-government at the local council level, much of the literature pays little attention to it - yet this is where citizens generally have the most have contact with government, be it for paying rates, settling planning disputes, borrowing books from the library or arranging home care. The position of local councils is akin to a shop front, making them an ideal source for the delivery of all three levels of government services. Before such visions can be achieved, there are a number of issues to be dealt with.

The aim of this paper is to investigate just one – the apparent discrepancy emerging in website sophistication at the local council level. Thus, while all 78 Victorian councils were found to have a website presence in the first study in this current research project, there appeared to be considerable variation into what the public were actually being offered. The most simple level is where information is provided in static document format and forms in downloadable format through to high levels of sophistication, providing links to local businesses, access to councillors via e-mail, a wide range of information, and the facility to pay council rates, animal registration and home care fees online (Teicher & Dow, 2003).

RESULTS – THE DEMOGRAPHICS

The web sites chosen for the content analysis survey were selected from those agencies who responded to our survey of managers in Stage 1 of this research project and who identified themselves. The data in the original survey was generated from a questionnaire developed by Hart-Teeter (2002).

This second stage of the research project adapted items from the web survey carried out in the UK by Dunleavy, Margetts, Bastow, Callagahn and Yared (2002) as part of a larger project for the National Audit Office. The UK study contained a coding framework for the content analysis of websites of 82 items. Screening for relevance and overly complex detail reduced the Australian study framework down to 52 items. A representative sample of 22 local council websites was selected across the council types within each state (except the Northern Territory). See Tables 1a and 1b

Table 1a: Government Levels Surveyed

	Frequency	Percent
Capital City/Urban Metro Developed	5	22.7
Urban Fringe	5	22.7
Urban regional Town or City	5	22.7
Rural	7	31.8
Total	22	100.0

Table 1b: Local Governments Surveyed by state

State	Local Government	
	Frequency	Percent
NSW	7	31.8
Vic	7	31.8
QLD	4	18.2
WA	1	4.5
SA	2	9.1
Tas	1	4.5
NT	0	0.0
Total	22	100.0

RESULTS – THE WEBSITES

We now move to examining how these local authorities performed on specific aspects of their Web provision. As councils cover such a wide range of areas, this section is divided into two parts. The first will look at some general features of councils' sites, and citizenship and related issues and links to other bodies. The second section will consider a range of 'human services' such as education, leisure and social services as well as environmental services such as public transport, highways, housing and planning.

The primary issue for the public user is finding the website in the first place. Most of the surveyed websites were easy to find using the Google search engine and restricting the search to Australian sites. The two sites not listed in the top ten were small rural councils.

Table 2: Search Engine Finds

	Frequency	Percent
First place	19	86.5
Top ten	1	4.5
Not in top 10	2	9.0
Total	22	100.0

Once the site has been located, the second issue is navigating around the site to locate the desired information. A search facility is a key tool in this process. Seven council websites, (4 rural and 3 urban fringe) did not have a general search facility. However, two sites on the urban fringe which do not have a site-specific search facility, do have a link to many global web search engines such as Google, Yahoo and AltaVista. This does not compensate for the absence of a site-specific search which makes finding information rather difficult.

In terms now of general site features, Figure 1 reveals that half (50%) of the local government sites did not have a site map while only 27% of local government sites provided an A-Z list of services. Further, nearly 60 percent of sites gave no indication as to when they had last been updated.

Figure 1: Basic information and site facilities across local authority Web sites in 2003

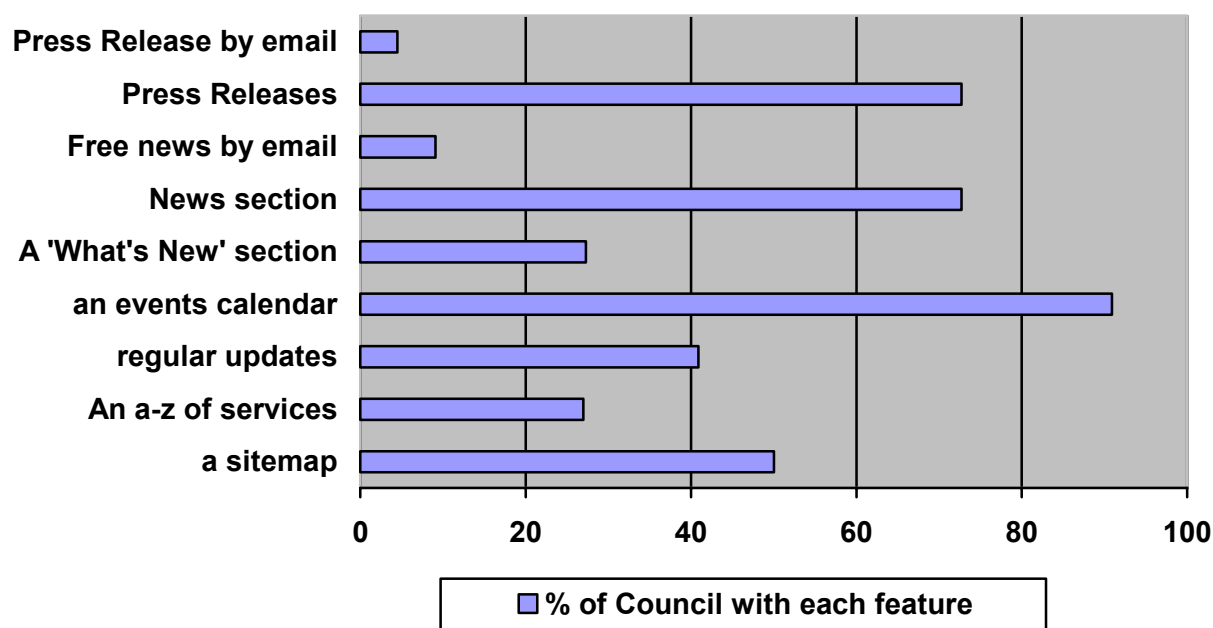


Table 4 takes this lack of updating of information a step further to show rural councils were the worst offenders - with only one of the 7 council sites providing this very basic range of information.

Table 4: Indication of when last updated by council type

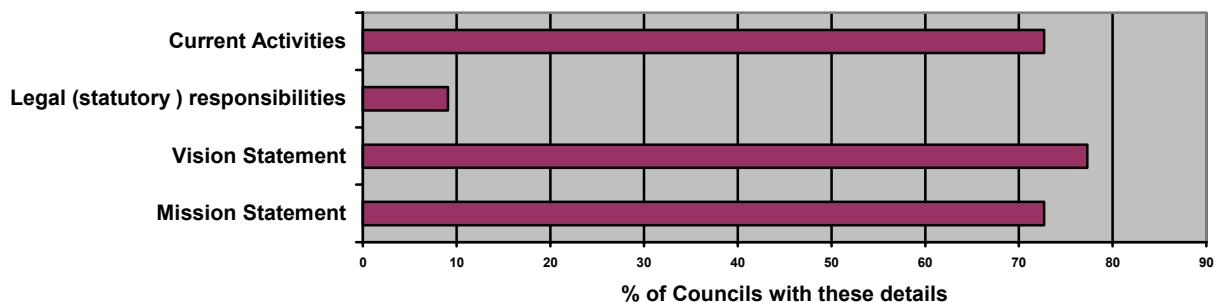
	Local Total		Capital City/Urban Metro Developed	Urban Fringe	Urban regional Town or City	Rural
	Freq	%				
Last week	4	18.2	2	1	1	0
Last month	3	13.6	1	1	0	1
More than 3 months	2	9.1	1	0	1	0
Not updated	13	59.1	1	3	3	6
Total	22	100.0	5	5	5	7

While none of the sites surveyed provided web usage statistics, all but two of the local councils had an events calendar. Again though, the lack of updating was reflected in the poor results for the 'What's New' feature, provided by only 6 of the 22 councils. Three quarters had a News section on their web sites, but only 2 offer a free email subscription service, and none offer a paid subscription or a dedicated email service designed for particular client groups. This distinction in terms of customisation of service is further reflected in the provision of press releases on-line, provided by approximately three quarters of local councils but dropping to only 1 offering a subscription facility to receive press releases by email.

The information the organisation presents about itself is an important public face and contains a number of aspects. As Figure 2 shows, the first priority for most councils appears to be publicising

their Mission Statement and, for the majority of local councils, this is contained in their annual report which can be downloaded from the Internet. Perhaps surprisingly, the vision for the future is slightly more likely to be made available – with 17 of the 22 councils posting this information.

Figure 2: Structure & Responsibilities of Local Government across Websites in 2003



At a more functional level, less than 10% of the councils surveyed make their legal or statutory responsibilities accessible on their web sites yet, over 70% advertise Current Activities. There were a number of areas in the UK survey this study is based on that did not even feature in local websites. None of the sites surveyed provided:

- special technologies for users with special needs (such as voice output and Braille browsers);
- a chat room;
- video files; or
- audio files, although one local council provides an audio version of their 'Aged and Disability Services' brochure while another provides audio for a short preview of the tracks on a music CD which it is selling to raise money for local CFA brigades.

Only one site, a metropolitan city council, offered a text-only version of their site, although many sites were designed pretty much as text-only with the only graphics appearing in the banner.

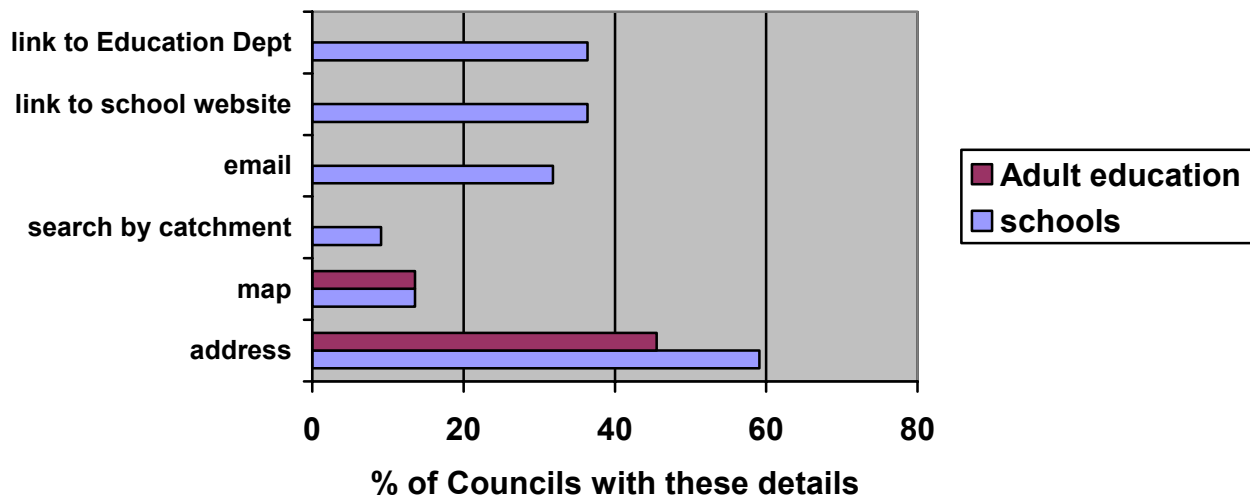
In terms of issues of Access Equity and Compliance with accessibility standards, only two metropolitan local councils show that they comply with either Bobby or W3c standards for accessibility. (Note: it is government policy at both the federal and state level that sites should adopt the W3C/WAI standard, but this is not made clear on the sites surveyed). This is further reflected in the general absence of sites being available in Languages other than English. Only one local council provides multilingual support, which consists of information about which phone number to call for support in one of 11 languages, and a three pages introduction (in PDF format) to the services provided by council. Overall, Figure 2 shows the proportion of the 22 council Web sites containing a number of basic information features. The four most popular here are: a listing of local events; a section on the vision statement of the council and three features of equal ranking were a section for news releases, press releases and current events.

Research reveals that a major determinant of government web sites being used regularly is to ensure they mesh with local community concerns. Links which facilitate a wider view of the community and to the local private sector are also likely to be important, especially in areas such as education and leisure as well as to information and services available on issues such as waste

management, housing and community services. This next section thus turns to look at the services provided and then moves to a comparative view of these offerings.

Figure 3 provides a breakdown of education details provided by councils of lists for private and public sector schools as well as adult education institutions. The basic levels of information are the institutions address, a map of the location, catchment area as well as links to schools' own Web sites and their e-mail addresses, together with details of school term dates. Only two councils provided a search facility for people to determine which school's catchment area they are in, yet 13 of the 22 provide address details of both private and public sector schools.

Figure3: Educational Details across local authority sites in 2003

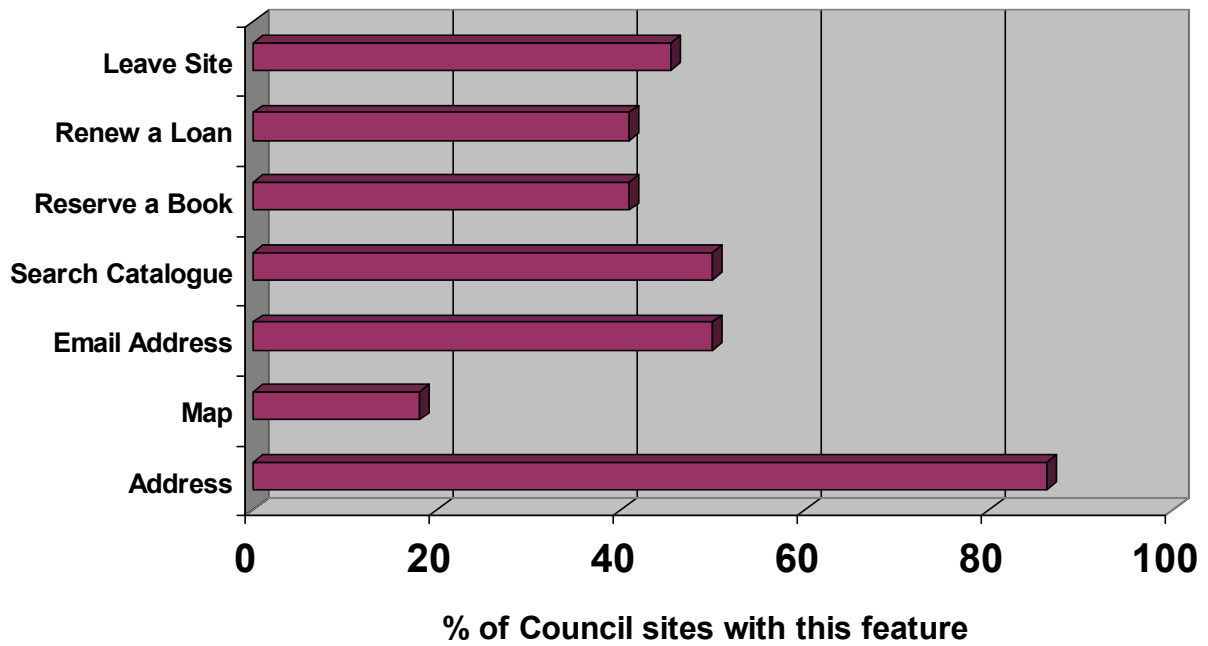


Only a few (3/22) provided a map of locations and, of these, the best link was to commercial map providers allowing users to see both the school's precise street location and where it is situated within a wider area. Adult education features and links are less well-developed and only 3 authorities had public ability to download applications for courses or apply on-line while 8 provided links to state level departments of education.

Library services provide a rich area of IT application as it is a well developed area of research for ICT since the 1980s and today, most library catalogues can be much more easily browsed and books ordered or reserved over the Web than via the phone. As Figure 4 reveals most local councils provide details on their web site to library facilities in their area. Two of the three that did not provide this information are remote rural councils, but surprisingly the other is a large regional town council. Figure 4 shows half the councils provide access to library catalogues. This is mainly done by providing a link to the library's own web site, but in three cases the library site is provided by the council. In one case, we were unable to find out whether one could renew a loan because this facility, if it exists, is not evident until one has a book out on loan.

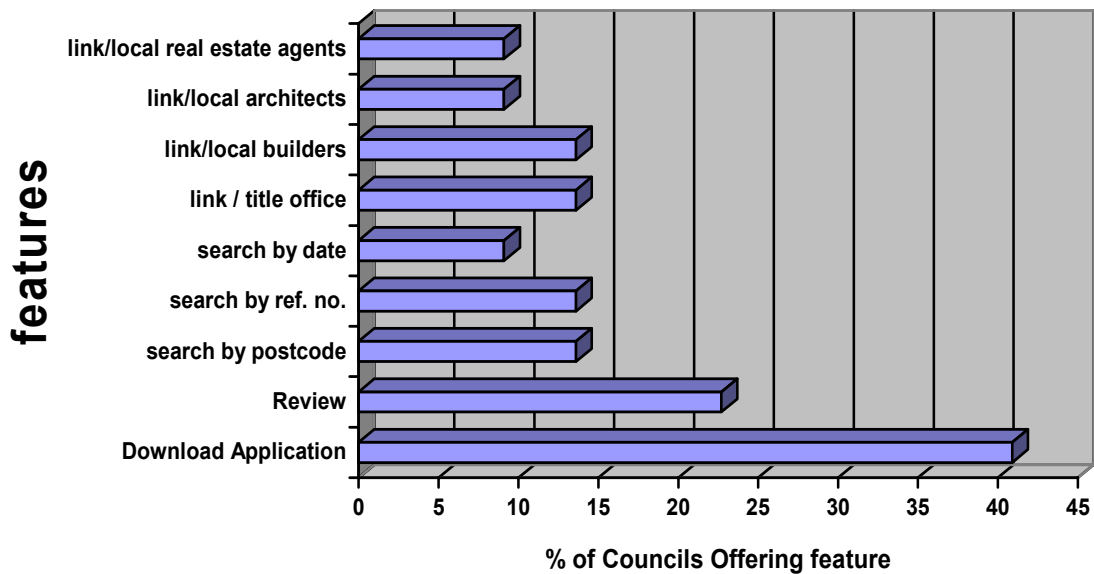
Most local authority's libraries now provide an on-line searchable catalogue, more let users reserve or renew books online. Half of councils have an on-line enquiry facility for their library via e-mail, and over two thirds provide a list of library addresses and over 80% but less than 20% provide a location map for local libraries.

Figure 4: Library information and services available across local Authority sites in 2003



While library services were well resourced on council websites, very few councils provide a facility for reviewing building or planning applications. Even fewer provide links to sites relevant to building and planning, as shown in Figure 5.

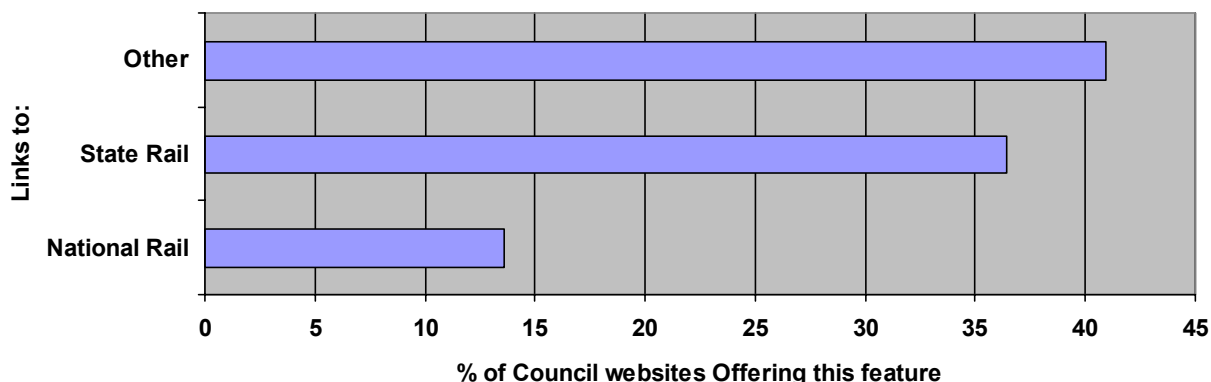
Figure 5: Building and Planning across local authority sites in 2003



Overall, in contrast planning uses of the Web have been much less developed, with the major function being to allow users to download the forms needed to make a planning application. Generally, only 3 of the 22 councils also let users search online for applications by date, postcode or reference number order. Although planning could be seen as an easy area to fully 'digitize' local authority administration, none of the have gone much of the way towards this goal and the general picture is one of rather modest progress.

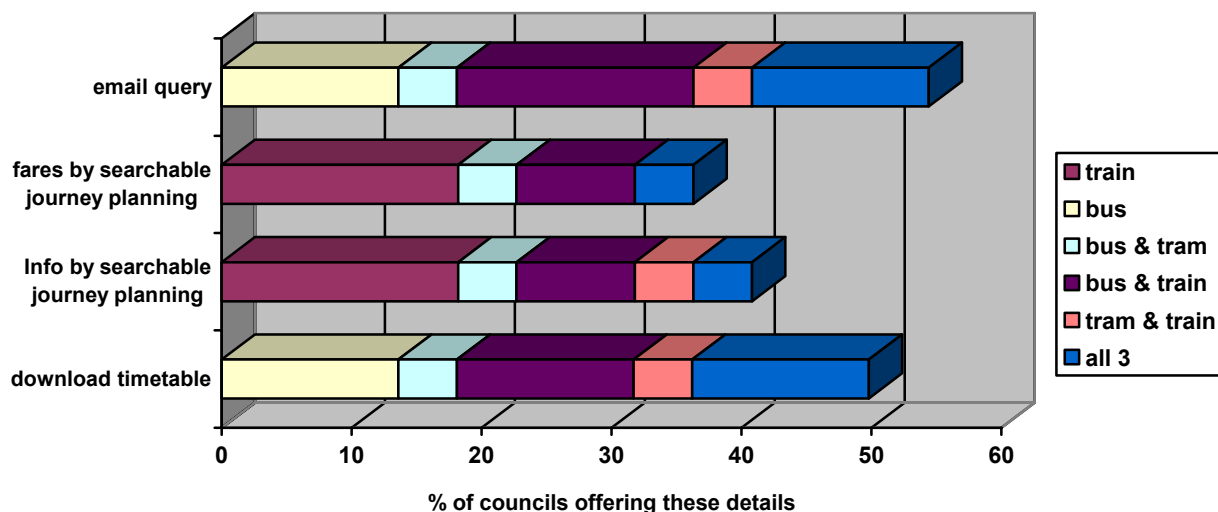
This modest view continues when we examine transport. Council Web sites could provide a useful way of helping to overcome some of the difficulties of finding out information about public transport, and assisting the public in identifying connected journeys across different forms of local transport. However, as Figure 6 shows though, only half the councils surveyed provide information about transport in their locality. In all cases this is done via a link to transport companies.

Figure 6: Links to transport companies across local authority sites in 2003



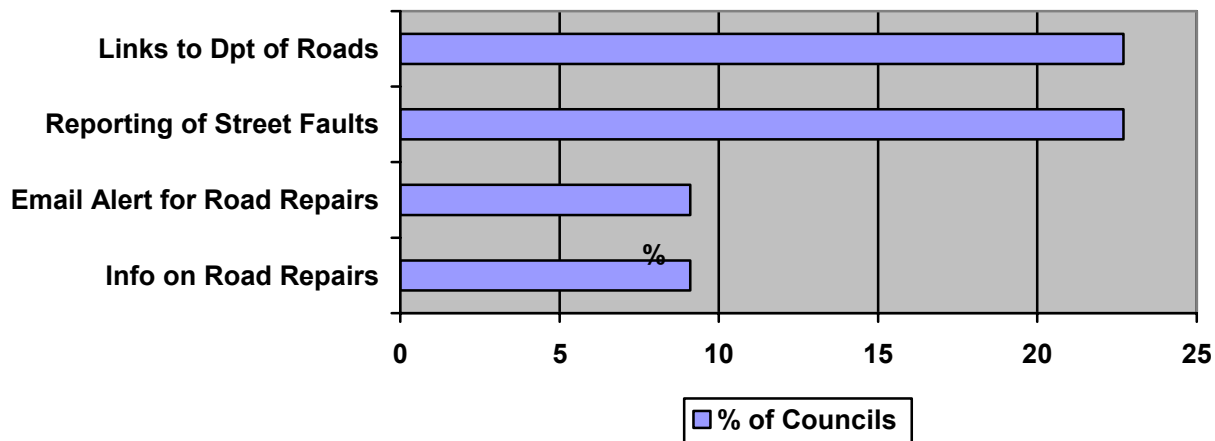
Only the links to a bus company shown in Figure 7 allowed the purchase of a ticket. A little over a third of the sites surveyed provide a link to the state railway service and to other transport services (e.g. airlines), but only three of the 22 give a link to the national rail network.

Figure 7: Links to Information about transport facilities across local authority sites in 2003



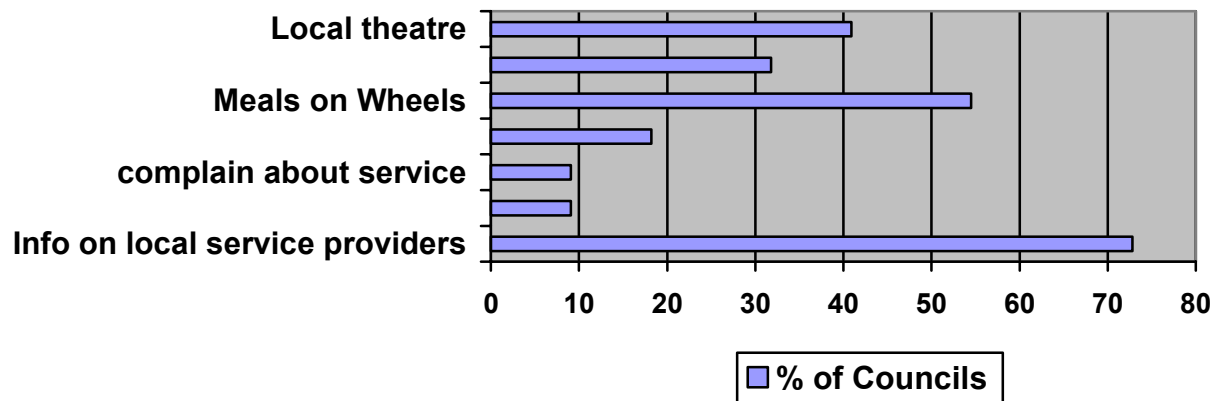
Some developments are emerging with over 20% of councils allowing users to access searchable journey planners - mainly for bus and rail. The development of features about roads and highways on local government sites is also just beginning. As Figure 8 shows, only a few councils provide information on local road repairs, and 5 let users search for repairs or provide a link to the Department of Roads. Over a quarter of council sites include provision for people to report street faults online.

Figure 8: Road and highway information across local government sites In 2003



Social services information on council Web sites is shown in Figure 9. While over half of council Web sites provide a listing of local social services providers, few have links directly to them or allow citizens to apply on-line for social services or even download a form to fill and send back in the post.

Figure 9: Community Service information across local government sites in 2003

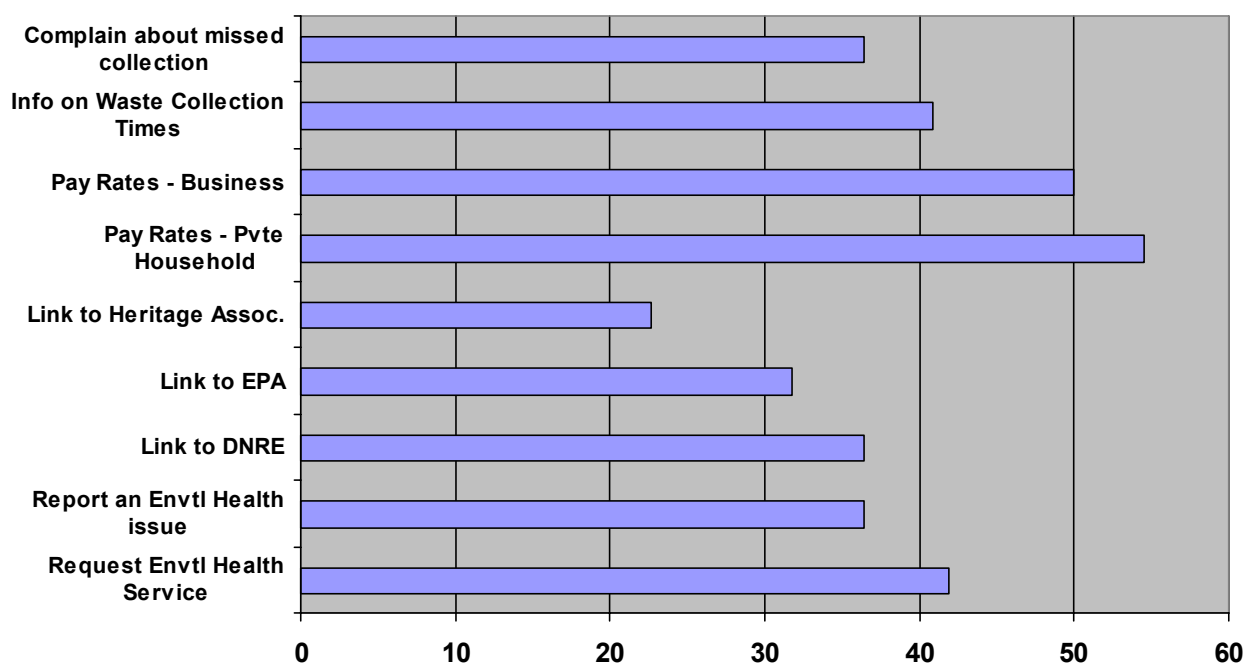


Also, while most councils provide a list of the various service providers, only 2 had facilities to complain about them, a lack which seems at odds with the moves to privatisation of services in this area in particular. The lack of information in areas where local government has traditionally played

a very active role is further seen in the provision of information on Leisure - where local authorities often play a role already through their own facilities, encouraging tourism and such. Web links to local theatres and cinemas were provided by less than half. Only three sites give details about how to book leisure facilities and only one provides a downloadable form for booking.

Finally Figure 10 shows the frequency of another set of links to environmental Health issues, waste management and the payment of council rates. Less than third of councils provided linking to the DNRE, the EPA and Heritage associations or similar while fewer than half provides online information about when household rubbish and waste is collected or allow citizens to submit a complaint online to their local environmental health department.

Figure 10: Environmental information and services and Council Rates available across local authority sites in 2003



The results from Figures 1 to 10 are now summarised in Figure 11 below to provide an overall view of to compare the features of local authority Web sites. This overview provides some indication of how easy it is for citizens to use the sites to carry out a number of common tasks or help solve everyday problems

The results support the view from the survey of CEOs which formed the first part of this research where it appeared that local government in particular was largely in its infancy with the use of ICT. Overall, most council sites are basic in nature, focussing on promoting the local authority or area using the transfer of traditionally paperbound documentation into e-formats.

There are indications of some councils moving into the next stages with the provision of some interactivity but fully developed move from more interactively arranged and accessible Web presence to fully 'transactional' site (where the local authority has Web enabled) appear to be some way off.

Figure 11: An Overview of The Analysis of Number of Features Present on Each Website For Local Government 2003

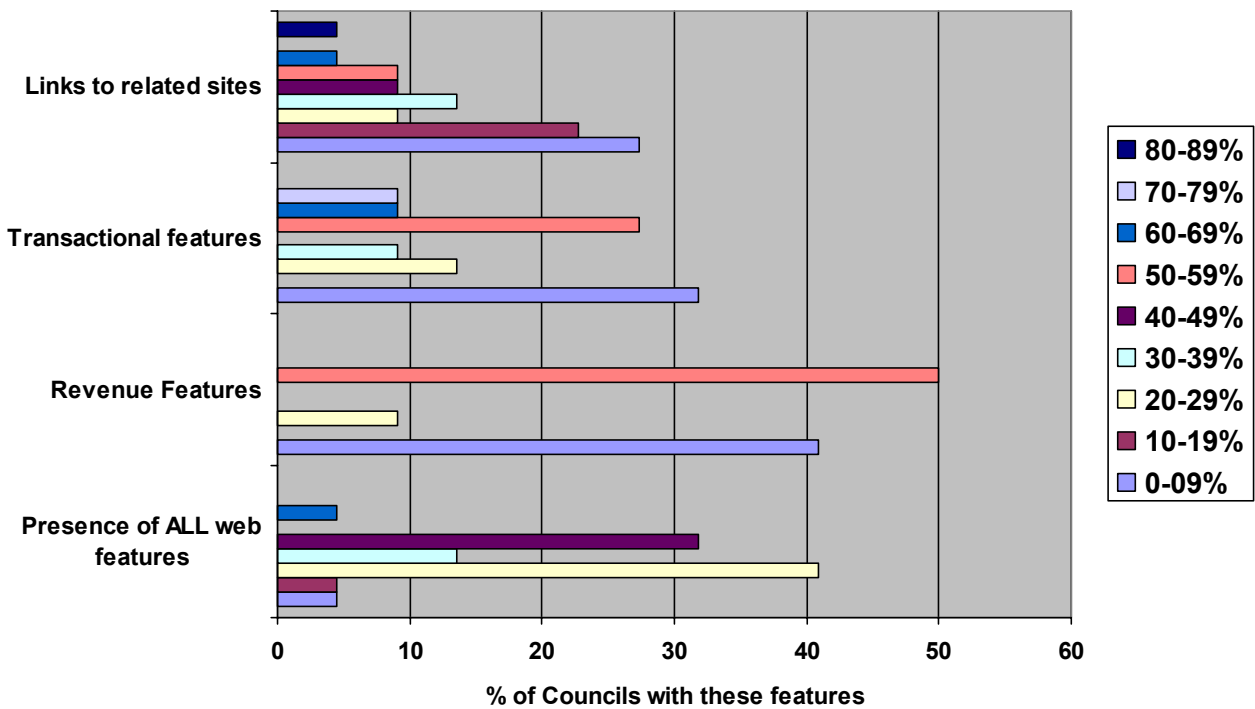
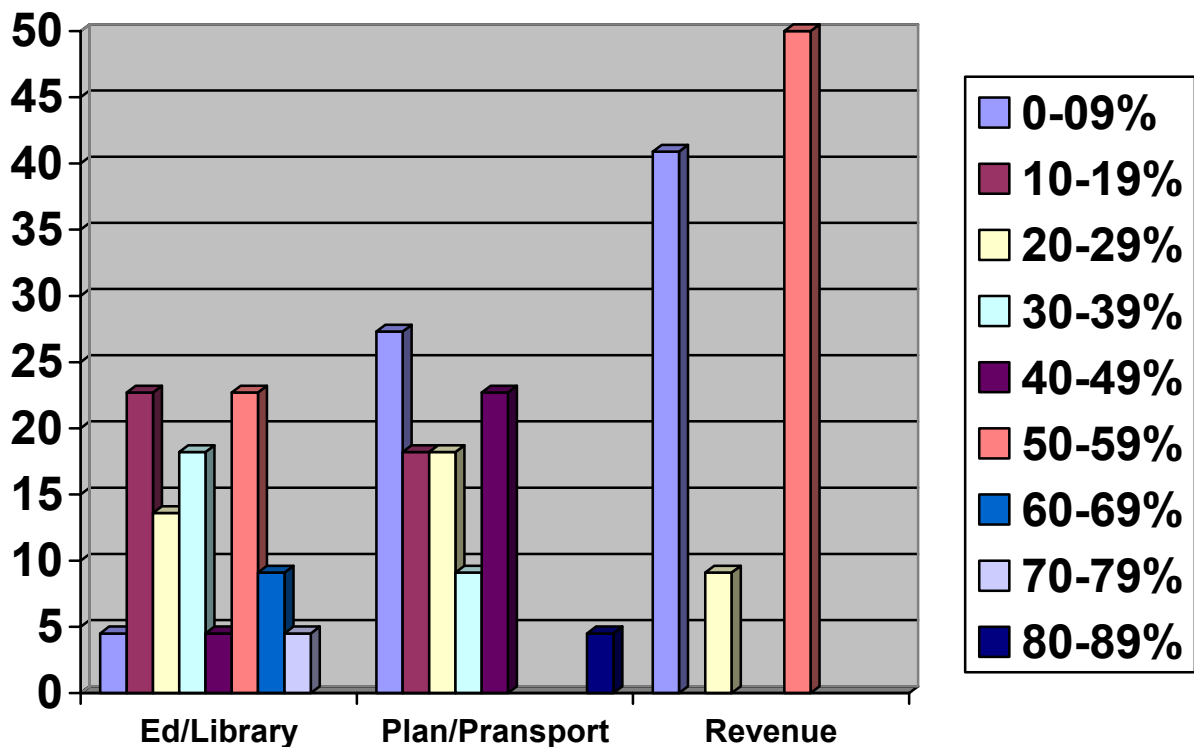


Table 12 further supports the straight transfer of traditional business operations onto websites as the major function of half the websites is focused on revenue collection.

Figure 12: Per Centage Scores for the Presence of Groups of Features on Council Websites 2003



Ed/Lib etc. = Education; Library; leisure activities; social services.

Plan/Transport etc. = Planning; Transport; Roads; Waste; Environmental Health.

Revenue = Pay councils rates; Pay business rates; Pay for Adult education; Buy ticket.

CONCLUSION

E-Government in its various forms holds out the potential to bring about major change in the public sector, but, in the case of Australian local government, the appearance of a web presence belies the reality. While results from the previous research underlying this current project did little to dispel Australia's claim to be a leader in E-government, the reality at local government level now shows that web sites at this level are generally informational only. Overall, this content analysis of a random Internet survey of local government websites in Victoria found evidence a range of IT initiatives at local government level – from a predominance of councils operating at the relatively simple processes of changing traditional paper-bound documentation into electronic formats to a few more complex areas which have the potential to provide the real possibility of a 'one-stop shop' for all levels of government covering activities from ordering publications online to lodging complaints, renewing licenses, paying fines and information requests.

While the terms 'quality' and 'quantity' are inherently implied in many of the results presented in this paper, the real issues from the public perspective of being users of e-government services are that the electronic services products are user-friendly, and widely accessible. While relevant to all levels of Australian government, these aspects pose a very specific challenge at the local, regional level in particular where the issues of geographic dispersion and funding present in new dimension with the potential for enhanced interactivity with their citizens.

It is this focus which will provide the next research area for this project and the results to date suggest that this user focus is going to be very important on a number of dimensions – but of most relevance here is the major implication for the hierarchical model of information flow and interaction which has traditionally characterised government/citizen interactions. The potential is to create a

more interactive citizenry who move beyond expectations of sophisticated technological solutions and ease of access to government services to wanting to communicate on a much more diverse range of issues. As a result too, the importance of privacy and security issues can be expected to be important and dominant issues amongst consumers and issues such as the need for privacy officers, privacy and the presence of formal complaint mechanisms may well determine how the relationship between government and the public online will evolve. The fact that these issues are currently afforded little room in local government websites can be seen as a major stumbling block in translating the rhetoric of e-government into the reality. It is also an indication of just how far away we are at the grass roots level from the potential to move from e-government to e-governance and ultimately, e-democracy - where technology moves from enhancing the delivery of existing services to interacting with government to influence the legislative and public sector process.

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