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How Mature is Victorian Local E-Government: An Overall View

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Abstract

The purpose of this empirical study is to analyse the level of maturity of e-government in Victorian local governments. The study will help to determine the extent to which Information and Communication Technologies (ICTs) help local governments to provide citizens with more transparent and advanced services and to close the gap between the government and its citizens. Analysis of 30 local government websites was conducted using 52 evaluation variables (items) in a questionnaire. The evaluations were performed from the 1st of March to mid July 2011 on 38% of all Victorian council websites. The results of this study show that e-government initiatives in Victorian local governments have achieved considerable levels of maturity in terms of transparency and interactivity. However, this maturity is hindered by the low level of website usability. The main contribution of this study is that it provides a clear picture about how mature Victorian local government websites are.

Keywords

Local government websites, e-government, Maturity

INTRODUCTION

In the early years of electronic government the emphasis was on 'the use of information and communication technologies and particularly the Internet, as a tool to achieve better government'(OECD, 2003, P. 1). Governments adopted e-government to enhance their service provision and boost the efficiency of public management. By providing citizens with quality e-government services, the interaction between citizens and government agencies becomes smoother, easier and more efficient. However, e-government is about more than improving government efficiency; it can improve the relationship between a government and its citizen and strengthen civil society as a whole. More recently e-government has been defined as 'the use by government agencies of information technologies that have the ability to transform relations with citizens, businesses, and other arms of government' (World Bank) and the focus of governments has shifted from the use of ICTs as service provision tools to increasing the value of services and achieving better government (UNPAN, 2008). This shift has been motivated by many factors. For instance, the way people communicate has been redefined by Web 2.0 applications, which transform the web into a participation and co-production platform. Web 2.0 includes social networking sites, video sharing sites, wikis, and blogs. Social media has become part of citizens' online activity. Recent research show that Australians' usage of social media and social networking sites increased among all age groups from 38% in 2008 to 45% in 2010 (VIC eGovernment Resource Centre, 2011).

According to the Australian bureau of statistics, in 2009, 86% of Australian households had home Internet access and 62% of households had broadband Internet connection. Also, Victorians interaction with government online has increased significantly (VIC eGovernment Resource Centre, 2011). Governments who communicate with their citizens using what is known as GOV 1.0 approaches that only inform (what the government has decided to do) and that do not engage citizens, risk being seen as out-of-step and as less democratic (VIC eGovernment Resource Centre, 2011). The Australian government has invested very heavily in e-government at its three levels of government (federal, state, and local); at the federal level the expenditure on ICT is

approximately \$6 billion while it is \$1.4 billion in the state of Victoria. Given the substantial investments in e-government initiatives, and the challenges of the requirements of the information society, the Australian government will need to begin to evaluate governmental websites in terms of quality and effectiveness.

This paper examines Victorian local government websites to analyse the level of maturity and the trend of e-government in transparency, usability, interactivity, and website maturity. This will support further research into assessing how they are using websites to close the gap between citizens and local government. The study contributes insights into the extent that e-government enables transparency, usability, interactivity in Victorian local governments. The websites of 30 local governments are analysed, using a 52 evaluation variables questionnaire. This paper is structured as follows: in the first section we analyse the literature on e-government in particular on Victorian local government and e-government maturity models. The second section discusses the methodology used to conduct this research and the findings obtained. Finally, in the discussion and conclusion section, an assessment of the impact of the websites is carried out to determine their maturity levels and the extent to which ICT helps government to provide citizens with more transparent and advanced services.

LITERATURE REVIEW

The diversity of the platforms and applications of ICT allow governments to deliver and manage a variety of different services (United Nations, 2005). The significance of e-government is recognized by many governments (Shackleton et al., 2006), thus, governments in developed countries have identified e-government as a high priority area in their modern public management policy (Dunleavy et al., 2008).

E-government in Australia

The Australian government realised the importance of e-government very early. In December 1997 the Australian prime minister John Howard indicated that by the year 2001 'all appropriate services would be delivered electronically' (Dunleavy and Margetts, 2006, p. 46). This initiative peaked in 1999 and gained Australia an international reputation as one of the early leaders in the e-government field (Accenture, 2003, Clift, 2002). To sustain its international position, the Australian government released its online strategy in 2000, followed by its new service agenda '2006 e-Government Strategy' (AGIMO, 2006). The new service agenda has identified four strategic goals; meeting users' needs, establishing connected service delivery, achieving value for money, and enhancing public sector capability (AGIMO, 2006). At the state level, the Victorian government was one of the first adopters of e-government alongside Federal initiatives in the Australian Tax Office, Centrelink and the Health Insurance Commission (Dunleavy et al., 2008). In the state of Victoria, the responsibility for ICT was assigned to Multimedia Victoria (MMV).

E-government in the Victorian Context

In Victoria, there are 79 councils, representing around 5 million people. Each has between 5 and 12 elected councillors elected for a four-year term, as well as council staff who implement council decisions and provide services. Local governments in Victoria are established and operate under different State Government laws, including the Constitution Act 1975 and the Local Government Act 1989. Council administrations have a chief executive officer (CEO) and the staff are employed and managed by the CEO. A council exercises a wide range of government functions and powers for the "peace, order and good government" of its municipal district. Even though local government is the third tier of government, it is considered to be a separate entity that resembles Federal or State government in many ways, except that it carries out government activities applicable to a smaller, "local" area (DOPAC, 2011). Local governments are a vital part of government and their significance is that they are seen as the tier of government that is closest to the people. Governments can use Web 2.0 applications to enhance democratic processes and strengthen civil society, working from the bottom up through engagement of stakeholders through open consultations, and tailor the services to meet their needs; share their interests and experiences, and opportunities to engage them in policies design and implementation (VIC eGovernment Resource Centre, 2011). To leverage the opportunities of Web 2.0 in transparent government, strengthen citizen participation, and at the same time build capability, Victorian government introduced its Government 2.0 Action Plan.

Victorian Government 2.0 Action Plan

The Victorian Government 2.0 Action Plan offers an organized approach to the use of Web 2.0 applications and tools such as wikis, blogs, and social networking sites. The plan focuses on four main areas (VIC eGovernment Resource Centre): driving adoption of Web 2.0 in the Victorian public sector (leadership); engaging communities and citizens (participation); opening up government (transparency); and building capability (performance). These four action areas contain 14 initiatives aiming at engaging and empowering citizens, making government more transparent, and improving government capability. The first key area *leadership* is about the establishment of a taskforce to guide the implementation process and provide participation and

collaboration forums, starting with the implementation of a GOV 2.0 project in every public sector department by the end of June 2011. This area also includes the implementation of new Victorian government privacy legislation and records that addresses issues related to how public servants interact with social media. The second key area *participation*, seeks to involve citizens and communities to construct more targeted and effective government policies and services by implementing new initiatives using the latest Web 2.0 tools such as (VIC eGovernment Resource Centre, 2011):

- Have Your Say (an online consultation website about government programs and services),
- Public Records 2.0 (an online space to allow community participation in accessing the state public records),
- Regulatory Government Wiki (an online information repository to improve the operational performance of regulators), and
- Citizens Centric Services (involving the community in service delivery and policy development).

The third key area, *opening up government* includes three significant initiatives; a) Victorian Public Sector Hack Days (an event where the developers of public sector websites and people with ideas gather to build applications using Victorian public sector data), b) data.vic.au (an online access point for Victorian public sector information) and, c) Information Management Framework (with standards and measures for sharing data). The Victorian government expects that the release of public sector information and primary data to researchers, government website developers and designers, and to creative people for re-use will drive innovation, new services, and bring many significant social and economical benefits. The fourth main area, *building capability* is about managing the risks linked with social media and the development of resources and toolkits to support the uptake of new technologies in the public sector, by using Web 2.0 tools for consultations and best practice.

WEBSITES EVALUATION

There are many studies and models to assess and measure the development of e-government. For example: Balutis (2001), the UK National Audit Office (2002), UN (2003), Santos and Heeks (2003), Wimmer (2003) and West (2004). These models are similar in presenting the development of e-government in a number of stages that each have a range of elements, but vary in the number and naming of those stages and elements. In all models, the stages are represented in a linear progression, meaning that e-government should develop from the first through to the last stage. However, many studies argue that the development of e-government is not always progressive and stepwise (Shackleton et al., 2004).

Utilizing the assessment models above, the following stages can be synthesized: 1) **Emerging stage** - this is considered the first development point for all e-government initiatives by publishing basic government information online. 2) **Enhanced stage** - where the focus of the government is more about the quality of the information provided through the website. 3) **Interaction stage** - where the communication between the government and the citizens becomes two-way communication. In this stage users can download forms, post comments, or request some services through online forms. 4) **Transactional stage** - in this stage citizen can complete an entire task through online transaction such as renewing licences or paying fines. 5) **Vertical integration** - is where there is integration between the different government departments and the organisations themselves, especially between departments that have similar functionalities. 6) **Horizontal Integration** - this stage represents the highest level of interaction between citizens and government. Citizens can engage in digital democracy (e.g. voting) and government should be able to provide citizens with one-stop- shop service centres.

The above e-government development stages are used to qualitatively measure the level of development of e-services and requires inside knowledge of the organization. However, there is a need to evaluate on a quantitative basis the features and services provided by government web sites. Pina et al. (2010) brought together a number of quantitative measures from a range of studies (for example: CyPRG 2001; Moon 2002; Wong and Welch 2004; Scott 2006; Tolbert and Mossberger 2006.) and developed a quantitative measurement model. This model focuses on local government and consists of the following main criteria: transparency, interactivity, usability, web maturity (Pina et al. 2010).

In their study Welch and Wong (2001) refer to Transparency as the extent to which an organization reveals work and decision processes and procedures, and to Interactivity as the quality of communication between agency and citizen. Usability refers to how website users can access information and navigate the home page (Pina et al., 2009). The Cyberspace Policy Research Group (CyPRG, 2001) was developed for assessing US federal websites; this study offers two broad aspects of interactivity and transparency. Chadwick and May (2003) evaluated the government websites in the United States, Great Britain and the European Union and found that the government websites are mostly non-interactive and non-deliberative. Wong and Welch (2004) find that e-government often only replicates the existing nature and features of public bureaucracies. West (2004) studied the effects of e-government for service delivery, democratic responsiveness, and public attitudes and found that there was an important increase in the perception that government is effective in those who visited federal

government websites. Tolbert and Mossberger (2006) reported that increased use of e-government by citizens increase citizen's perceptions about government transparency, efficacy, accessibility and responsiveness. Scott (2006) has evaluated to what extent local government websites encourage a higher participation in democratic processes in 100 large US cities. The results of this study indicate that local government websites are improving citizens' access to information about the city government and facilitating contacts with elected representatives through email. All the studies mentioned above have detailed diverse forms of measures for the evaluation and examination of e-government growth. These studies show that in the short term e-government initiatives seem unable to reform public administration. In order to classify the methods to measure advances in governmental transparency, accountability and engagement of citizens in city affairs Pina et al (2010) use the findings in the above studies to analyse two groups of items in 75 European local government websites. The first group related to financial accountability while the second group were divided into four dimensions: transparency, interactivity, usability and web maturity. These four dimensions are used in this study, which is also conducted at local government level.

METHODOLOGY

A website analysis method is used in this research. Website analysis is widely used in e-government research to examine services, features, and functions of government websites (Torres et al., 2005, West, 2004). A website analysis of 30 local government websites was conducted using a 52 evaluation variables (items) questionnaire. The evaluations were performed from 1 March 2010 to mid July 2011 on 38% of the Victorian councils' websites. Defining the website is one of the challenges in website analysis, particularly when the council website is linked to other government websites (Herring, 2010). This research analysis is limited to the main council website and does not examine any links. However, we consider a link to other commercial or government service as a council service in itself and is notes as such. For example, we count links to Bpay or POSTbillpay (methods of payment) as a service provided. The website investigations concentrate on the availability of the services on the website but do not examine the quality of the service itself. We measured the presence of the following dimensions; transparency, interactivity, usability, and website maturity.

Australia has a federal system with three levels of government: The first level is the national government based in Canberra; the second is the state level including seven states and territories each with its own state level parliament and the third level is government agencies and local government (council). Victoria State is divided into two regions; metropolitan and rural councils and has 79 local government areas. Thirty-one of these areas make up the Melbourne metropolitan region. Melbourne, the capital of Victoria, is home to around 3.8 million people (70% of all Victorians) (DOPAC, 2011). The rural region, containing 38 local government areas, hosts around 30% of Victorians. Fifteen local governments have been randomly selected from both rural and metropolitan regions in order to assess to what extent e-government enables transparency, usability, interactivity and to have an overall view about the maturity level of Victorian local government websites. The 30 examined local governments were identified from the council list and maps provided by the Department of Planning and Community Development (DOPCD) (DOPAC, 2011). Initially, we conducted a comprehensive analysis of the 30 selected Victorian local government websites to build a list of services and features to measure. Most of the items we have listed from this analysis matched the items used by Pina et, al. (2010) to assess the EU local governments. Both Australian and EU local governments operate in relatively similar, democratic political systems. We have therefore adopted Pina et, al.'s (2010) evaluation dimensions and definitions for evaluating transparency, usability, interactivity and maturity of EU local governments. However, in order to adapt Pina et, al.'s (2010) evaluation items to the Victorian context some items have been combined, modified or replaced by new items that emerged from our comprehensive analysis of the Victorian local government websites.

Pina et, al. (2010) refer to transparency of websites as *the extent to which an organization makes information about internal works, decision processes and procedures available*. They identify 18 different items, but this was reduced to 16 for the following reasons: The item "instructions how to appeal" was combined with "explanations of requirements", as they are considered to evaluate the same service. Also the item "Email person responsible for technical support" is modified to "Email/form regarding technical support" as Victorian websites are providing online forms as a medium to contact technical support. The feature "email person responsible for website content" does not appear in Victorian websites and was therefore deleted. The items "mission statement" and "organization chart" was combined together as Victorian websites are using both terminologies for the same purpose. To suit the Victorian context the item "link or text to Freedom of Information Act" is modified to "link to VIC privacy commission" and "security policy" is changed to "Disclaimer & Copyright Notice".

Table1. Evaluation of Victorian e-government local council websites

Transparency Items	No of councils	%	Interactivity Items	No of councils	%
Last updated	28	93.33	Secure section	21	70.00
Postal address	29	96.66	Secure access for transactions	30	100
Employees' phone numbers	30	100	E-mail link to senior official	28	93.33
Email / form regarding tech. support	30	100	E-mail link to employees	30	100
Councillors' e-mails	27	90.00	Suggestion/Comment boxes	26	86.66
Councillors' phone numbers	27	90.00	News and public notice	30	100
Details for senior officials	29	96.66	Link to issue related websites	30	100
Mission statement/ Customer Charter	26	86.66	Link to non gov- websites	30	100
Addresses for non gov. institutions	28	93.33	Down loadable forms	30	100
Index for reports, publications, laws	29	96.66	Request services online	20	66.66
Publications for free	29	96.66	Submit inquiry online	25	83.33
Link to VIC privacy commission	10	33.33	Employment / job vacancies	27	90.00
Explanations of requirements	29	96.00	Direct online payment	18	60.00
Index for forms	27	90.66	Interactive mapping services	08	26.66
Privacy policy	29	96.00	Community directory	26	86.66
Disclaimer & Copyright Notice	27	90.00			
Dimension Average Percentage		90.00	Dimension Average Percentage		84.22
Usability Items	No of councils	%	Website Maturity Items	No of councils	%
Languages: Total translation	0	0	Audio/ video files	09	30.00
Languages: Partial translation	07	23.33	Events& calendar	26	86.66
Sitemap	15	50.00	Link to Bpay, POSTbillpay	21	70.00
A-Z index	21	70.00	Emergency management	26	86.66
FAQ	14	46.66	Citizen consultation	22	73.33
Search engine	30	100	Live broadcast of events	03	10.00
Audio access for visually impaired	06	20.00	Snap send solve	01	3.33
Main page passes WAVE scan	08	26.66	Twitter	11	36.66
Text enlarge AAA	27	90.00	Face book	08	26.66
Compliance with W3C standards	18	60.00	You Tube	04	13.33
			RSS	10	33.33
Dimension Average Percentage		48.00	Dimension Average Percentage		42.72

*No of councils = the No of councils using this service out of 30

Interactivity is *a measure of the degree of immediate feedback and development of interactive e-services* (Pina et al., 2010). Pina et al. (2010) identify 18 different items in this dimension that has been reduced to 15. The following explain how and why items were changed. The item "Email link to web master" was combined with "Email link to employee" because they address the same service. Similarly, the item "Guest book" was combined with "Suggestion/comments boxes". We considered the item "online forms" as a part of online services, therefore we have modified it to "Request services online" to include the other online services within this item. The items "Make an appointment with officials, staff, etc" and "Link to appeal process" do not appear on Victorian websites, and were therefore deleted.

Usability refers to *the ease with which users can access information and navigate the Web portal* (Pina et al., 2010). Pina et al. (2010) have 10 items, in this dimension which were changed to contextualise them to the Victorian environment as follows: We technically tested local governments' websites accessibility by testing the homepage through the online website accessibility examination tool "WAVE" which is developed and made available by WebAIM (available at <http://wave.webaim.org>). This free community service tests websites against standards of compliance with the standards recommended by the World Wide Web Consortium (W3C). Sites are counted compliant or not based on the results of this test. Hence, we have replaced the item "Main page passes Bobby scan Priority 1" with "Main page passes WAVE accessibility scan". Consequently, the item "WAI or Bobby Approved icon" was deleted. The item "text only accessible version" was replaced with "Text enlarge AAA". The item compliance with W3C standards was added to evaluate the website that state that they comply with W3C standards.

Website maturity *embraces those aspects that indicate a high degree of website sophistication* (Pina et al., 2010). Pina et al. (2010) have 7 items in the web maturity dimension. We expanded the items for this dimension to 10. Victorian websites mainly use Bpay or POSTbillpay as payment method where citizens can use either there Credit or debit cards. Thus, the item "Credit card payment" replaced with "Link to Bpay, POSTbillpay". We added three new assessment items that are important measures of the government website interactivity dimension (submit inquiry online, interactive mapping, and community directory), and (snap send solve service, emergency management, and the use of social media tools (Twitter, Facebook, RSS, and Youtube) to the website maturity dimension evaluation items. To evaluate the websites, we have built a table including a list of items related to each dimension which are shown in Table 1. These items have been scored '1' if they appeared in the local government website and '0' if not.

DISCUSSION OF RESULTS OF WEBSITE EVALUATION

Websites are evaluated for the presence of different features and services (items) related to transparency, interactivity, usability, and website maturity dimensions. The analysis of the examined local governments' websites findings are summarised in Table 1 and discussed below.

Transparency- Looking at specific features of local government websites, we aimed to assess how much material and how many features provide citizens with online information about government internal work, and decision processes (Pina et al., 2009). Also the assessment includes the availability of contact details especially for the councillors and senior officials. In general, we found that most of the evaluated local government websites provide a high level of transparency at 90 percent overall; for example, the examined websites scored 100 percent in 2 assessed items and 90 percent and above in the other 14 items. All the websites (100%) provide users with employees' phone numbers and e-mails or online forms to contact the local government regarding services or technical support. Ninety-six percent of government websites offer publications that a citizen can access for free. The same percentage (96%) was scored in the other four measured items; the appearance of the council postal address, details about councils' senior officials, arranged indexes including government reports, forms and laws, and publications. We found that 28 out of 30 websites evaluated (93%) were updated in the last two weeks, and most of these websites were updated before the date of examination. The addresses for non government institutions appeared in the same number of websites (28). In 90 percent of the examined websites citizens can contact their councillors directly by obtaining their e-mails and phone numbers from the councils' websites. Having clear privacy and security policies clarifying what the site is doing regarding privacy is valuable to encourage citizens' use of e-government services and information. The data indicated that only 26 websites (86.66%) stated clearly their mission statement or customer charter. A privacy policy was clearly posted in 96 percent of the websites. However, only 10 e-government sites (33.33%) offer direct online links to the Victorian privacy commissioner website which is an independent statutory office created by the Information Privacy Act (IPA) 2000. Whereas, 27 sites (90%) are posting disclaimer and copyright notices.

Interactivity- Interactivity is a measure of the level of immediate feedback and applies ICT as a means of improving communication with citizens (Pina et al., 2009). Interactive online services allow citizens to interact with the council in two ways; first citizens obtain the information that relates to the service they intend to use, and second citizens can submit or request services online. To examine the Victorian local government websites

interactivity, we tracked 15 interactivity items (see Table1). We found that online services are nearly universal. Overall, the Victorian local government examined websites scored 84.22 percent in the interactivity dimension. All the examined websites (100%) have the following features and services: transactions secure access method; e-mail linked to councils' employees, posting the latest news and public notices, links to issue-related websites, links to non government websites, and provision of downloadable application forms. Most of the evaluated websites (at 90 percent and more) offer citizens very important services that facilitate interaction and engagement such as; display e-mails linked to councils' senior officials, and posting diverse career opportunities and job vacancies to make a positive difference to citizen's lives. Councils encourage residents to get involved in community life by joining in the many activities, programs and events that take place in the area. Councils can improve their services efficiency by using online suggestion and comments boxes where citizens can send their thoughts and report any issues directly to the council including technical problems with the site itself. The data shows that services such as; suggestion and comments boxes, community directories, and submit enquiry is very common (at above 80%).

The ability to request council services online is a very important feature to measure government websites interactivity. The examination of this item is limited to the services that can only be requested online. We do not consider the service as a service that can be requested online if a user has to print a form and then post it back to the council to obtain the service. Of the websites examined, 20 websites (66.66%) offer their users a fully online service request. The main categories of these services are; Registration (such as a pet or relationship status, etc), apply for permits (building, event, planning, parking, etc), organise an event (wedding, event in a park, hire a sport ground, etc), make a complaint, book a service, and request for funding or a grant. The direct online secure payment item is limited to a service where citizens can pay directly online but does not include the other payment methods where users are linked to Bpay, POSTbillpay or any other electronic billing payment services. Sixty percent, 18 councils, provide a direct online secure payment service to help the community to pay bills and accounts such as: property rates, parking permit renewals, parking fines, planning payments, building payments, health and food payments, animal registration renewals, public space licences, other licences, permits and infringements in the easiest possible way. An interactive mapping service is a service that provides a map on a council website of where the council is located to make it easier for citizens to find the locations of council services. Although mapping tools provide council's website visitors with point-to-point directions and help them to find information online, this item scored the lowest percentage in interactivity dimension at 26.66 percent.

Usability- Usability refers to how the website users can access information and navigate the home page (Pina et al., 2009). Undoubtedly, citizens will not use websites that are difficult to navigate. While some Victorian local government websites provided features and services that made them highly usable, many others could be greatly enhanced. In order to evaluate the Victorian local government usability, we have evaluated 10 items. In general, the examined websites scored 48.00 percent in the usability dimension. The results show that none of the websites examined provides a full language translation (0%) for all the website pages to any other language. However, 7 of the examined websites (23.33%) offers partial translation for some of their web pages to some other languages (for example: Italian, Arabic, and Vietnamese) that allow limited access for non-native speaking users. Search engines offer great help for website users to have an easier and faster way in researching saved materials and information and find answers to their questions. All the websites evaluated (100%) have a search engine feature. Many users may find text too small to read easily on the screen, especially if they are working at a higher screen resolution or using smaller screen laptops. Also users who have vision impairment need to increase the text size to make it easier to read. Text enlargement feature appeared in 27 websites (90%). The obtained results also indicate that there is some usability features that need to be improved in particular, these features including: providing visually impaired users with audio access, A-Z Index, and sitemap. The results show that only 8 websites (26.66%) are compliant with W3C accessibility measures, whereas 18 websites (60%) stated on their websites that they are compliant with the W3C accessibility guidelines.

Website Maturity-For the purpose of measuring website maturity dimension, we measured eleven items of website maturity divided in two main groups; First group, *advanced services* embraces the use of audio and video files in the website, events and calendar, link to financial institutions such as Bpay and POSTbillpay, emergency management, citizen consultation ('have your say'), live broadcast of speeches and events, and Snap Send Solve service. Second group, *use of social media networks* includes the use of Twitter, Facebook, Youtube, and RSS. In the web Maturity dimension, the assessed Victorian websites scored 42.72 percent in total.

Advanced services: Australia is a nation prone to a range of natural, technological and human-caused emergencies (Attorney-General's Department). As a requirement of the Emergency Management Act 1986, each council should have an emergency management plan. The plans outline the general arrangements used to manage emergencies which may occur within the council. By including emergency management services in their websites, councils not only try to assist, inform, and direct citizens in the event of an emergency, but also to involve the community in the decision-making processes associated with emergency management activities (Attorney-General's Department.). Eighty-eight percent of the Victorian councils take advantage of the existence of their websites to publish their Emergency management section. Also with the same percentage (86.66 %)

websites post calendar and events services. Local governments provide calendar and events services to publicize enhanced and modern programs, projects, practices, and events which give greater quality of life opportunities through the delivery of an event and/or festival. The examined web sites of Victorian local councils contain an extraordinary amount of material to update, inform and, engage the community.

In order to develop citizen-centric policies and programs, the Australian government utilizes public consultations to engage more openly and extensively with the public. The Australian government's 2006 e-Government Strategy, *Responsive Government: A New Service Agenda*, commits the government to "establish Principles for online engagement to support a consistent experience for everyone engaging with the government electronically" (VIC eGovernment Resource Centre). Most of the websites examined refer to the citizen consultation item as "have your say"; this significant engagement tool is used by 22 councils at 73.33% percent of the examined sites. Offering citizens with more than one option to pay was also found in the majority of websites. Nearly three quarters of the examined websites are linked to POSTbillpay or Bpay, some websites are linked to other financial institutions, such as: Direct Electronic Funds Transfer (DEFT) payment system, Commonwealth Bank, and National Australian Bank (NAB). In contrast, the use of live broadcast of council speeches and events, and audio and video files services are comparatively rare compared to the other services examined in this dimension. The use of live broadcast and, audio and video services appeared in only 3 websites (10.00%) and in 9 websites (30.00%), respectively. Snap Send Solve is a free smart phone application developed by Outware Software Company that specialises in mobile application development. This mobile application allows citizens to report issues supported with pictures, and provide feedback to their councils directly online. This application verifies the citizen's location using GPS and sends back all relevant details from a citizen's email address so that the council can communicate directly with the citizen to resolve the issue. From the 30 examined websites, this new service was only used by one council (3.33%).

Use of social media-Clarke (2010, p.1) asserts that 'social media offer great opportunities for political actors, political institutions and the public to interact with one another'. Social media is gaining popularity as a means for politicians to interact and communicate with their constituents to learn about their interests and needs. These means of communication are being used by citizens as a tool to influence decision-makers and hold legislatures and government to account. The use of social media as an interaction medium between public organizations and their citizens is still in its infancy. However, there are many potential benefits that have been attributed to social media, for example: social media may foster greater pluralism in political discourse, enable citizens to become more effective political actors, build trust in public institutions and figures, help legislators to better represent citizens, help governments to better serve the public's needs, and engage youth in the democratic process (Clark, 2010). There are indicators that Victorian local governments are realizing the opportunities and promises of the use of social media, and as a mean of communication to increase engagement of the community and enable citizens' participation. Social media is generally underutilized, with a small number of the examined websites using social media tools. The use of Twitter appeared to be the most common tool (36.66%) used by 11 evaluated websites. However, the use of Youtube was the least used tool with only 4 websites (13.33%), whereas, the use of Facebook and RSS appeared in 8 websites (26.66%) and in 10 websites (33.33%), respectively.

The major contribution of this study is that it provides a clear picture about how mature Victorian local government websites are. However, to better understand how the investigated dimensions contribute to closing the gap between the citizens and the government, it would be useful to examine the quality of the dimensions and items used in this study and assess how citizens value them. Furthermore, the relation between councils' financial sources, number of residents, and the region of the council (metropolitan or rural) is considered to be a worthwhile area to be investigated.

CONCLUSIONS

Local governments are a vital part of government. The significance of local government, in particular, is of great importance in that it is seen as the tier of government that is closest to the people. Victorian government is committed to enhance transparency across all Victorian authorities in order to make information more readily available to the citizens and allow them to hold Victorian politicians to account. It also seeks to improve government capability by involving the citizens in service delivery, building interactive government websites and encouraging citizens to request services online. The analysis of websites reveals broad trends among Victorian local government websites. Overall, the empirical results show that e-government initiatives in Victorian local governments have achieved considerable levels of maturity in terms of transparency and interactivity. However, these significant levels of transparency and service interactivity are hindered by the low level of website usability. Social media can promote accountability, transparency and public engagement with politicians and government. Victorian websites show the use of social media is still in its early stages; however, this use of social tools by the frontline authorities to communicate with a large number of constituents is an important indicator of government efforts to close the gap between the citizens and government.

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