

THE CHANGING FACE OF LOCAL EGOVERNMENT IN NEW ZEALAND

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ABSTRACT

In New Zealand, there is a national digital strategy with targets for 2010 in place set by the State Services Commission. In this paper, the extent to which e-participation targets have been met by local governments in New Zealand is explored, particularly with respect to social networking facilities made available on local government websites. A two-level theoretical framework based on core systems thinking principles is presented that provides a means of evaluating 2010 targets for local governments and citizens. The impact of structural change particularly on meeting 2010 participation targets for local government are explored from both local government web developers and the public view via an analysis of participation facilities offered on local government websites.

KEYWORDS

E-government, local government change, digital divide, cluster analysis.

1. INTRODUCTION

In this paper the extent to which the national digital strategies, particularly for e-participation are explored, which is aligned with the workshop aims. The question posed for this study was: how are national digital strategies incorporated into local government website design particularly for e-participation? The data has been collected from two points of view: local government web designers and from an analysis of the public view of local government websites. The structure of the paper is as follows: first a literature review is presented that traces the history of local e-government in New Zealand; next an e-government services model is presented based on core systems thinking principles. This is followed by the qualitative method used for this study, an analysis of the data gathered, and discussion and conclusion.

2. LITERATURE REVIEW

New Zealand's national government has set digital strategy targets up to 2010 (Table 1) that have been developed deliver government services in a coordinated way to achieve government sector outcomes across all sectors including local government. Developing sector standards and frameworks for interoperability and data quality and exchange are priorities. In 1997, the first local government website in New Zealand (www.localgovt.co.nz) became operational (Higgins, 1997). The Labour market policy group first discussed what the digital divide meant for New Zealand in 2000 (Labour Market Policy Group, 2000) stating that all New Zealanders should have the opportunity to access and have effective use of current and emerging information communication technologies (ICTs). Politically, the 2000 vision was that closing the infrastructure digital divide would enable individuals and communities to participate in economic, social educational, cultural and democratic opportunities available in an information society.

Peacey (2002) found that there was disparity between e-government services provided across New Zealand. The State Services Commission launched an e-local government strategy in 2003. Cullen, O'Connor and

Verrit (2003) provided the first evaluation of e-government websites and stated that over 90% of their participants had used local government websites and less than 50% were satisfied with the service provided. In 2004, New Zealand's national government set digital strategy targets to 2010 (Table 1). Recently, these digital strategy targets have been pushed out to 2020 (State Services Commission, 2009). With online demographic changes in social networking, national e-government strategists are eager to incorporate democratic possibilities afforded by these technical changes. The 2020 vision is to provide 'seamless joined-up' services. Cullen and Hernon (2004) discovered that people were unaware of which local government agencies had made resources available on the internet. Problems included: outdated information, information overload, bureaucratic language, navigation problems, and individual rather than collective agency information via a central portal. Cullen and Hernon found that the 2004 national digital strategy goals had not been met and there was little integration of services and citizens needed to access a range of websites to complete related transactions. In user studies published in 2004, it was found that citizens chose to telephone government agencies (Becker, 2004; Curtis, Vowles, & Curtis, 2004; Fox, 2004; Selwyn, 2004).

Integration of government agencies for service delivery from a single digital access point was first implemented in 2005 (Digital Strategy Advisory Group, 2005). User issues still highlighted in the literature included design problems for older users (Bailey, Barrett, & Guilford, 2005; Chisnell & Redish, 2005; Kurniawan & Zaphiris, 2005) and inequitable access to digital services (Sanjeev & Riggins, 2005). Internationally, the United Nations were setting up goals for e-government. In 2006, it appeared that it was unlikely that the local governments in New Zealand would meet the 2010 aim of total transformation (Table 1) (Griffin, 2006). Griffin suggested that a greater awareness of e-government was required and there was a need for users to be more willing to use e-services. It was also noted in 2006 that different skills were needed by citizens for online literacy (Bulger, 2006). Much has been written about the urban/rural digital divide (Crang, Crosbie, & Graham, 2006; Statistics New Zealand, 2006; Willis & Tranter, 2006). Crang, Crosbie and Graham suggested that ICT unevenly affects the pace of life for urban dwellers, with the more affluent and professional having ubiquitous and continuous digital access and the underprivileged accessing ICT episodically (Crang et al., 2006). There were also a number of papers published discussing useability issues for marginalised users (Bulger, 2006; Fidgeon, 2006; Newell, Dickinson, Smith, & Gregor, 2006). Politically, in 2006 information technology was provided as an additional tool for citizens to participate in government processes and for citizen education about political processes (Haas, 2006).

By 2007, e-government infrastructure for the future was being discussed (Dutton & Peltu, 2007) an e-government web standards had been published and the differentiation between user services and back office e-government had been made (State Services Commission, 2007). A shared government network and logon service was established (and now disestablished) (Ryall, 2009). In 2007 more user-centred services such as e-newsletters, email alerts and subscription services were implemented (State Services Commission, 2007). In the digital divide literature, citizen's views of digital government were aired (Asgarkhani, 2007). Dahlberg explored power differentials in e-society and other authors continued to explore issues faced by older users going online for e-government services (Dahlberg, 2007; Dickinson, Smith, Arnott, Newell, & Hill, 2007). By 2007, two thirds of New Zealand homes were online (Statistics New Zealand, 2007).

In 2008, an e-government interoperability framework was discussed (State Services Commission, 2008). Reports were produced to track e-government progress in the local government sector (Local Government New Zealand, 2008a, 2008b; State Services Commission, 2008). There was widespread agreement that digital government was important, however few local governments had formal strategies to build e-government services. Parkin and Cullinan (Parkin & Cullinan, 2008) ranked local government websites from a user perspective. Lips developed a 4-stage e-government model based on: information, communication, transaction and transformation (Lips, 2008). User issues explored internationally included accessibility for older users (Cullen, O'Connor, & Verrit, 2003) and citizen access to e-government services (Rubaii-Barrett & Wise, 2008). In the push to e-government in the United Kingdom, economic issues for users were explored where it was found that digital engagement brings both a cost and a responsibility shift to citizens (Rowe & Alt, 2008). Letch and Carroll discussed social exclusion for marginalised people in accessing local government online in West Australia (Letch & Carroll, 2008). Mansourian introduced the concept of web search efficacy for e-government sites in Iran (Mansourian, 2008). Doesburg looked into the future to an online identification system for citizens in participating in e-democracy in New Zealand (Doesburg, 2008).

By March 2009, there were four New Zealand government portals one of which was designed as a back-office service for government agency employees. Local government websites were being upgraded to include links to other government agencies and to provide better-designed and more accessible online services. The 2009 Association of Local Government Management survey revealed that 71% of New Zealand local governments were using online submission for payments and consultation, 33% had RSS feeds for weather, traffic, and local activities, 32% provided an online bulletin board, and 25% of local governments provided email alerts to citizens. In this survey it was also reported that 19% of local governments were using blogs, 22% were currently using social media and 30% of local governments indicated that they planned to add social networking links to their websites.

3.1 Literature review summary

In this brief literature review it can be seen that e-government researchers in New Zealand have evaluated, analyzed and tracked the progression of e-government. Both public and internal views on e-government research have been presented. Local governments have provided their own monitoring of e-government via the Association of Local Government Management. Back office government interoperability has been addressed – and dropped, and much work has been done on web page usability. Less work has been done on e-participation. This research addresses this gap in the New Zealand literature.

Table 1. New Zealand Government Digital Strategy Targets (State Services Commission, 2004)

Strategy	Targets		
	June 2004	June 2007	2010
Outcome: 24/7 effective service provision	Goal: A1 Information on government services available on Internet	Goal: AA1 Services delivered (in part) over Internet Goal: AA2 Traditional service delivery(counter, post, telephone, etc) enhanced by use of Internet	Goal: AAA1 More proactive service delivery Push services to citizens (reminders, entitlements) Goal: AAA2 Internet main service deliverer Goal: AAA3 Range of service providers over Internet
Outcome: Integrated, customer-centred efficient services	Goal: B1 Start of integrated e-government – policy, standards, technology Goal: B2 Agencies more citizen-centric and results oriented in service design	Goal: BB1 Bundled services and frontline integration Goal: BB2 Back office integration advanced through use and implementation of e-government interoperability framework	Goal: BBB1 Cross agency service integration Stand alone services the exception Goal: BBB2 Targeted individual services More flexible service delivery Goal: BBB3 Back office widely shared Less investment in agency-specific technology
Outcome: Participation in government	Goal: C1 Internet as information provider on government processes and citizen involvement Goal: C2 Internet as consultation tool for policy development and service design	Goal: CC1 Increasing online participation for policy development and service delivery Goal: CC2 Electronic delivery of democratic processes	Goal: CCC1 Online participation the norm Goal: CCC2 Open and consultative policy processes Customised service delivery Goal: CCC3 Significant change in democratic and political processes

3. RESEARCH METHOD

This qualitative research project is part of an ongoing study of e-government in New Zealand. Two views presented here are a public view of e-government gained by an analysis of local government websites and an insider view from local government web designers. The research question asked was:

How are national digital strategies incorporated into local government website design particularly for e-participation?

3.1 Data Gathering and Analysis

Data was gathered in three ways: recording social networking links and pages provided on all New Zealand local government websites to gather information about the public view of e-government participation; a focus group with urban local government website designers; and email correspondence with rural local government website designers.

3.1.1 Public view: local government websites

An analysis of all local government websites was conducted in 2009 and again in 2010. Changes to the way in which social networking sites were used was the most prominent change (Table 2). In table 2, data gathered from local government websites has been matched with the results reported in the Local Government Survey (2010).

Table 2. Social networking analysis (2010)

	Reported in local govt survey 2010	SN pages found on search	SN pages on homepage	Not present
Facebook	24 (28.23%)	13 (15.29%)	5 (5.88%)	6 (7.06%)
Twitter	20 (23.53%)	8 (9.41%)	8 (9.41%)	4 (4.71%)
Youtube	17 (20%)	12 (14.12%)		5 (5.88%)
Blogs	15 (17.65%)	6 (7.06%)	4 (4.71%)	5 (5.88%)
Flickr	8 (9.41%)	3 (3.53%)	2 (2.35%)	3 (3.53%)
Bebo	4 (4.71%)	3 (3.53%)	1 (1.18%)	
Ning	2 (2.35%)		1 (1.18%)	1 (1.18%)
Linedln	2 (2.35%)		1 (1.18%)	1 (1.18%)
Myspace	1 (1.18%)		1 (1.18%)	
Other	1 (1.18%)		1 (1.18%)	
Total ²	94	45	24	25
^{1.} Total no of local governments (at present) = 85				
^{2.} (Some local governments had more than one SN site)				

Twentyfour local government websites stated that they had at least one Facebook link in the Local Government Survey conducted in 2010. Five of these local governments placed the facebook link on the homepage, thirteen had the facebook link/s available via the search function on the homepage and six local governments stated that they had a facebook link, when actually, it was not present at all. Because webpages are updated at all times this data is only correct at the time that the webpages were analysed. Twitter was the next most popular SN link provided with 20 local governments stating that they had a Twitter link. Eight of these links were found on local government homepages, eight on using the search function, and four were not located.

This analysis of local government websites (Table 2) identified that 42% of the sites included aspects of social networking with Facebook the most frequently used tool, followed by Twitter, Youtube, Blogs, Flickr and Bebo. Facebook is commonly used by youth groups or the local library but was also used to gather information from residents on proposed town planning or similar changes. It is also interesting to note that Twitter followers on local government SN sites are a very small minority of residents and ratepayers served by local governments even for the largest local governments.

Local government social networking sites were also used as informal information channels for a range of activities including: publicising news and events, sharing news from the mayor, publicising elections, notify grants, meeting notifications, job vacancies, and communicating about local government infrastructure e.g. ‘The blokes’ toilets in the James Lane building are being’. Further uses were for quick opinion polls; advertise current local government consultations; share local government video presentations; and ask for feedback on proposed infrastructure changes – new buildings. Only opinion polls and requesting feedback could be considered to be participatory. Information was also disseminated about weather and the environment, particularly weather alerts, power outages and road conditions and closures. The most varied use of SN sites was for community and recreation including special interest groups (arts festivals), library news and instructions, and sporting events. Finally, some SN sites were used to obtain comments on the local government website. As this research was conducted only in New Zealand, the results cannot be generalized internationally at this stage.

3.1.2 Insider view: local government website designers

Web designers from three large local government councils (two city councils (CC1) and one regional council (RC1)) provided focus group data. Email responses were received from two local government web designers (E1 and E2) It is interesting to note that at the focus group each council had a different structural arrangement for web strategy and development. At the regional council (RC1), there was a department of online communications and marketing. One city council (CC1) had a web strategy team and the other city council (CC2) had a web development team within the communications division. Each of the three web developers present had different skill sets with one IT developer, one web strategy manager and one communications manager. Another local government, not present at the focus group, indicated that their web budget was within the advertising and marketing division. Common to the local governments represented in the focus group were the internal cost and legislation controls, the ways in which local government bodies are established and run, the concentration on using websites to push information out to clients, use of SNs as passive information outlets and resistance to citizen input into local government website design and development. Differences between local governments included organisational barriers in the larger local governments, internal drivers for website design and development, and the use of online surveys for feedback. RC1 stated that there was no evidence to suggest that local governments were cooperating to benefit from common functions.

For RC1 the focus was on providing and maintaining infrastructure, although there was a ‘website within a website’ for parks and recreation that had more citizen focus. Therefore, RC1 stated that there was less need for customer input, and web development was driven from within the local government business units concentrating on back office requirements. There was also resistance from within RC1 to engage with online consultation. CC1 and CC2 stated that their organisations were primarily about client service. CC1 stated that web development was managed within the communications department. CC1 believed that there were organisational barriers to providing online services including a belief that seeking client input was expensive. CC1 stated that there appeared to be a lack of insight into how citizens interacted online with the organisation. CC2 also stated that direct customer input would be like a ‘can of worms’ and that the only input to website development was through online surveys. CC2 believed that SNs and the way in which they were being used was a ‘fad’. CC2 also stated that website innovations often came from the interests of individual developers.

All three web designers agreed that local governments had adopted social networking sites like Twitter for emergencies, weather or traffic incidents and reports and critical events. E2, who responded to an email request for information about local government e-participation disclosed that although she believed less than 1% of residents used the social networking tools provided on the council website, there was value in them for specific interest groups. An example provided was a blog in which residents shared their personal experiences of World War II. One of the larger urban local governments has recommended to its local community boards that social networking tools such as Twitter and Facebook be used for ‘community consultation’ purposes however there is no evidence that this has yet been done. From the web designers (RC1, CC1, CC2) there was some general debate in the focus group about what the measure of success was for new web features. There was some consensus that if a new feature attracted user who had not previously

visited the site this was a measure of success (like new users from twitter). The success of social networking was measured by the number of 'click-throughs' to the main local government websites.

4. LOCAL EGOVERNMENT SERVICES MODEL

The New Zealand government services strategy targets presented in Table 1 constitute a view from within national government, and in particular, the goals of online participation being the norm (CCC1), open and consultative policy processes and customised service delivery (CCC2) and significant change in democratic and political processes (CCC3) are considered. These goals are then categorised according to systems thinking principles. This Local e-Government services model (Table 3) has then been used to analyse the data gathered (Table 3). In each of the following sections, the local and citizen-centred views on e-government have been considered for each of the eight properties: structure, communication, control, emergence, whole system, role, initial conditions and flexibility.

The national digital strategy targets (Table 1) have been transposed onto the local e-government services model (Table 3) that is based on the core systems properties: structure, communication, control and emergence plus the four characteristics of role, whole system, initial conditions and flexibility. A local government website designer view is analysed providing an insider view, and the analysis of local government websites provides a public citizen-centric view.

Views from each participant are represented within each characteristic as RC1 (regional local government web designer), CC1 (urban local government web designer 1), CC2 (urban local government web designer 2), E1 (rural local government representative 1) and E2 (rural local government representative 2). E1 and E2 responded to email requests for information about e-participation.

4.1 Structure

Structure for local government is legislated at the central government level. The citizen-centric view from web developers was that facilities like local government social networking links had been provided for input into local government processes but that there was little uptake from the public.

4.2 Communication

Local government communication channels have increased with e-government. A 2010 analysis of local government websites identified that many local governments have implemented multiple communication channels via their websites including a variety of social networking sites. One local government representative (E1) stated that: "In particular, we have been working hard on e-participation activities by implementing our social media activities, through online surveys and especially through our e-panel who provide regular input into council services and strategies".. There was consensus from the local government focus group participants however, that the communication channels were used mainly to disseminate local government information rather than elicit public opinion and e-democracy. Communication on websites was measured by the number of 'click-throughs'. It can be seen, from this limited sample that consumers are kept at a distance and online surveys are the feedback mechanism of choice for local governments.

4.3 Control

Digital strategy targets have been set at the national level for the national government. These targets have been viewed as recommendations by local government web designers and developers. It is interesting to note that one web designer from the focus group was unaware of these standards. He stated that: "the national digital strategy was not compulsory for local government." Improvements made to the website were serendipitous and did not necessarily follow the national digital strategy. The 'insider' view of e-government control was that citizens had little or no control over the way in which e-government services were delivered.

Table 3. Local Government E-services model (Data analysis local government v citizen views)

<i>Structure</i>		<i>Communication</i>	
Local Govt	Citizen-centric	Local Govt	Citizen-centric
Legislated structure RC1 internal unit drivers, part of IT dept CC1 in communications dept CC2 no team	Structural input –citizens (SNs)	Some online surveys Some feedback loops Feed out info to citizens RC1 push info out only CC1 no client input CC2 no client input	More feedback from SNs
<i>Control</i>		<i>Emergence</i>	
Local Govt	Citizen-centric	Local Govt	Citizen-centric
Financial Local Govt legislation RC1 cost efficiency CC1 cost controls CC2 resistance to client input	Power differential between local govt and citizens	Disconnect between national & local government over national e-government digital strategy Each local govt has own views on service provision RC1 major changes ahead CC1 costs inhibit feedback CC2 passive SNs	SNs to push information to citizens
<i>Role</i>		<i>Whole System</i>	
Local Govt	Citizen-centric	Local Govt	Citizen-centric
Provide local services Collect rates RC1 IT developer CC1 web strategy manager CC2 web communications manager E1 marketing	Pay rates Receive services	Website public face Well-defined individual entities RC1 and sub systems CC1 organization barriers CC2 excellent customer service	Receiver of services Little e-participation from citizen to local government
<i>Initial Conditions</i>		<i>Flexibility</i>	
Local Govt	Citizen-centric	Local Govt	Citizen-centric
Set by senior managers RC1 set by senior managers CC1 set by senior managers CC2 set by senior managers	Citizens not part of initial decision making process	Larger local govts show less flexibility RC1 web team sets direction CC1 limited by resistance to org resistance CC2 no infrastructure change	Does not appear to be much flexibility

4.4 Emergence

An interesting discovery in analysing data from this project was that there appears to be a ‘disconnect’ between national and local government over national e-government digital strategy. The reason for this was not evident from the limited amount of data collected. Whilst the possibilities appear limitless for social networking and inputs into e-participation for local government, these possibilities have not been realised. It was also apparent that fears about the cost of e-government innovations, particularly soliciting citizen input were evident.

4.5 Role

Local government’s role is to deliver clearly-defined services to ratepayers and citizens. Because local governments are funded from both central government and ratepayers, there is a local government responsibility to deliver services to citizens in a cost effective and timely fashion. The 2010 digital strategy target for e-participation was designed to address both service delivery and participation online.

4.6 Whole system

Local governments operate under the Local Government Act 2002, and each has a well-defined and individual developed website. The Local Government Act 2002 advises that local governments must consult and communicate with residents on its long-term community local government plans, annual and half-yearly reports, local government decisions and annual statements of intent. There is also a well-structured internal local government system for each local government body that has been established in a 'silo' fashion according to participant RC1.

4.7 Initial conditions

Central government through the establishment of the national digital strategy has set initial conditions for e-government. Initial conditions for e-government delivery, services and e-participation are set within each local government, this giving rise to RC1's comment about silo development. Limited input from the public from online consultation whether in the traditional consultation mode or via social networking, means that citizens are distanced from local government decision making processes.

4.8 Flexibility

It is interesting to note that online technologies offer local government the opportunities for far more flexibility in all digital strategy targets. It is also interesting to note that this flexibility is apparent only in service delivery and information dissemination and not e-participation. Perhaps it takes more than technology to move local government mindsets to greater citizen participation.

5. DISCUSSION

As New Zealand is geographically distant from the rest of the world, and as it is a challenging country in which to provide ICT infrastructure, New Zealand governments, both national and local, have done well to provide digital strategy targets. Whilst these digital strategy targets have not been met fully, particularly for social inclusion and participation, this is not surprising in light of the major structural changes currently taking place in local governments. Ongoing research will consider these structural changes, particularly in the greater Auckland area. Utilizing a systems thinking approach provides a means of gaining deeper insights into the problems facing New Zealand in the face of such structural changes. In order to meet the digital strategy targets for e-participation, further research is required.

6. CONCLUSION

In this paper the question posed was: how are national digital strategies incorporated into local government website design particularly for e-participation? Analysis conducted from both a public view of what local government websites have to offer and what local government web designers believe they are offering indicate there are a number of points of difference. It is obvious that the web designers are interested in providing the best possible solution for the public, but they are constrained by budget, internal local government policies, senior management buy in and legislated infrastructure changes. The public view of what local governments have to offer is constantly changing, however, particularly from a social networking perspective it would appear that there has been very limited provision and uptake of social networking facilities. The most common use of local government SN sites is, as yet another information dissemination channel.

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