PERHAPS A RECIPE FOR CHANGE?
Will e-Voting Have the Desired Effect?

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Abstract: This work is a progress report and briefly describes the main findings from the literature review of the research into electronic voting as it identifies factors which affect the decision-making processes of the English local authorities which are offered the opportunity to trial electronic voting. The analysis is based on Rogers' diffusion of innovations theory framework. A key result found that in a voluntary situation where there is one overarching organization trying to introduce an innovation to an agency organization, Rogers' diffusion of innovations theory framework requires modification.

1 INTRODUCTION

The research outlines the first part of the project to identify the reasons why some English local authorities have taken part in the pilot schemes of e-voting and others have not. Aspects of the Rogers diffusion of innovations theory framework will be used to test whether the innovation, e-voting, will diffuse in accordance with that theory. Accordingly the hypothesis is "Electronic voting: Diffusion from central to local government."

This qualitative study was deemed appropriate as there is little information regarding the reasons that some English local authorities volunteer for the pilot schemes of the innovative voting methods while others refuse to volunteer. This acceptability research analyses an innovation in the prediffusion stage in order to identify elements of the innovation which will make it more acceptable to the local authorities. The analysis of the variables which encourage or inhibit diffusion of an innovation from central government to local government will result in recommendations to central government regarding their strategy for the implementation of innovations. These initial results of the literature review pave the way for the next part of the project.

2 BACKGROUND

Electronic voting has been introduced for two reasons, firstly in an effort to stem the decline in voter numbers and secondly as part of the strategy to modernise the systems of government and it is hoped to hold an e-enabled general election sometime after 2006 (Electoral Commission, 2002:2). Voter turnouts at elections have been falling for the last fifty years from a high of 83.6% at the general election of 1950 to 59.4% in the general election of 2001. This last figure brought fears that future elections could see the turnout decline to less than 50% and could mean that the authorities have no mandate (Coleman 2002:5). There was no significant improvement in 2005 with a turnout of 61.3%, only 1.9% higher than 2001 (Electoral Commission, 2005). Following the General election of 1997 the government established a working party which recommended a programme of pilot schemes of innovative electoral procedures to evaluate their effectiveness (Electoral Commission Factsheet, 2003:1). The Representation of the People Act 2000 gave effect to those recommendations and to date there has been a series of election pilots in May 2000, 2002 and 2003, each of which has been evaluated by the Electoral Commission. Participation in the pilot schemes is voluntary and 2003 saw the largest scheme to test innovative voting practices. Across England almost 6.4 million people were eligible to vote in these pilot areas, 14% of the English electorate, of the fifty nine local authorities taking part, fourteen included internet usage (Electoral Commission, 2003a:1). However the UK government is not piloting the new voting methods in 2006 due to security concerns but is

determined to pursue e-voting once those matters have been addressed (Richardson, 2005:1).

The move to electronic voting is gathering pace throughout the world. Postal voting is available as an option in Australia, Canada, Spain, Sweden and Ireland. Internet voting is not yet available in those countries but there are discussions in Sweden regarding its introduction in 2010. Italy has offered to aid some African countries in their pursuit of e-voting. The USA anticipates that the Help America Vote Act 2002 will aid the development of the new voting practices as America has experimented with the Secure Electronic Registration and Voting Experiment, SERVE, to allow absentee military voters in 50 counties in seven states to place their votes. India has conducted an electronic election relying on voting machines. Brazil too has made use of voting machines; each candidate was numbered as the rate of illiteracy is high. In Singapore the Elections Department has agreed to hold Internet voting in one or two constituencies at the next presidential or general election. So it can be seen, even from this tiny snapshot, there is a growing momentum for the new voting methods.

3 RESEARCH FRAMEWORK

A key element of this research is the relationship between central and local government as central government seeks to introduce e-voting. This work will adopt the agency model of local government. In this respect once local government has applied to conduct a pilot scheme, there is little discretion regarding the type of pilot, what they ask for is not necessarily what they receive. Central government maintains control over the range of e-voting processes and the available finances. Coleman (1994:146) summaries the purpose of this control as "resources to provide an extension of self" in that central government are pursuing their own interests. Consequently, the alternative power dependence model is unsuitable for this work as there is no bargaining and exchange of resources, the power lies with central government.

The empirical research will involve taking a sample of three local authorities which have taken part in the pilot schemes and three local authorities which have not taken part, and evaluating their committee reports which outline their decision regarding their participation in the 2003 pilot schemes. The election officers of those local authorities will then participate in semi-structured interviews. There will also be an interview with the

officer in the Department of Constitutional Affairs who is responsible for the implementation of the new practices. The thematic literature review has acted as a research facilitator in that it has identified questions which need to be addressed in those interviews and has identified factors which promote or inhibit adoption and diffusion.

These research methods offer a realist philosophy of social research. The outcome (diffusion of e-voting) of the action, (the introduction of e-voting) depends on the mechanism (mass adoption) which in turn depends on the perceived attributes of the innovation and the norms of the social system. This takes place within a given context, the social structure within which local authorities and central government operate. This approach allows for the interplay of context, process and content.

This research project will use Rogers' theory of diffusion of innovations for organizations and the decision-making process theory which pertains to the individual, coupled with the perceived attributes theory, to test whether the new voting practices will be adopted by the local authorities. "An innovation is an idea, practice or object that is perceived as new by an individual or other unit of adoption." (Rogers, 2003:12) E-voting is a new practice and therefore satisfies this definition. The major diffusion traditions are sociology, anthropology, public health, communication and marketing (Rogers, 2003:101). However this research will test the diffusion theory in a setting in which it has not previously been applied.

4 LITERATURE REVIEW

The main objectives of the literature review are to establish:

1. What is electronic voting and what are the contextual factors surrounding its introduction?
2. What is the Everett Rogers diffusion of innovations theory?
3. What characteristics of an innovation influence its adoption?
4. How will the policy to adopt electronic voting diffuse from central government to local government?

The literature review critically evaluated, identified and inter-related the themes to satisfy the objectives. The different aspects of electronic

voting are detailed as is the change in voter behaviour leading to falling turnouts at elections. Rogers' diffusion of innovations theory framework for the individual and for organizations is outlined with suggested alternatives. Following a description of the meaning of adoption, the perceived attributes theory is then expanded to evaluate the different characteristics of an innovation, (in general terms and of electronic voting), which influence adoption. The final section analyses the changes which have impacted on the English local authorities following the Local Government Act 2000. That information allowed an initial analysis of the fluctuating political climate which has affected the norms of local government.

5 FINDINGS AND DISCUSSION

The findings of this literature review have identified some of the inhibiting factors which influence the local authorities as they consider e-voting. These factors centre upon the potential turnout, voter attitude and capacity, security and privacy aspects, the role of management in strategic planning for change, external influences. However perhaps the most inhibiting factor in the acceptance of e-voting is the environment of constant enforced change and adaptation imposed upon local government by central government. In addition the research has highlighted a deficiency in Rogers' diffusion of innovations framework.

There is widespread agreement regarding the new methods of casting a vote but there is also agreement that new voting methods alone will not increase voter turnout. "Turnout through electronic means is likely to mirror conventional voting patterns rather than greatly alter them" as it is only likely to appeal to those individuals who do not vote through time poverty (Fairweather and Rogerson, 2002:28). The major preparatory reports by Candy (2002), Fairweather and Rogerson (2002), the Independent Commission on Alternative Voting Methods (ICAVM, 2002) and the Electoral Commission (2003) recommend public education regarding the new voting methods. This has not taken place, indeed prior to each pilot scheme each local authority devised its own publicity campaign. This lack of a formal strategy is also noticeable in that there is no detailed plan to introduce e-voting, merely an aspiration for sometime after 2006 (Electoral Commission, 2002:2). The absence of guidance may effect the way in which local authorities view the status of the new forms of voting as participation in the pilot schemes is voluntary. The Electoral Commission recommends "as a priority" a detailed road map towards its stated goal (Electoral Commission 2003:7), while Dennis Reed the Director of the Local Government Information Unit, a think-tank, urges that there has been too much caution (Parker,2003). However Candy recommends "a long lead in time" to allow individuals to become "comfortable with the idea of electronic voting" (Candy 2002:36).

The need for public support for the new voting practices is acknowledged, indeed Candy (2002:6) considers that to be "pivotal" and as the ICAVM (2002:6) notes "confidence in democratic elections takes decades to develop and far less time to destroy". However there is an emphasis on a divided society, in that many individuals, including members of the local authorities, are not able to understand or use the new technology. In order to prevent individuals from being disenfranchised it is advocated that multiple voting channels should be maintained for the foreseeable future (ICAVM, 2002:13).

The local authorities appear to be introducing this change without adaptation to their organizational strategies. When an innovation is initiated into an organizational setting the management leadership underpins the introduction and Rogers (2003:414) indicates the importance of the role of the champion within an organization, "a charismatic figure who throws his or her weight behind an innovation, thus overcoming indifference or resistance that the new idea may provoke in an organisation." They need not be a particularly powerful person within the organisation but they will be adept at handling people and skilful in persuasion and negotiation. The importance of strategic champions is emphasized at three levels, Chief Executive, leading members of an organisation and middle management. It is also acknowledged that in a climate of change ideally there should be a specialized proactive planning department to provide a framework for this reactive management and to ensure that there are sufficient resources, financial and human (Collinge and Leach, 1998:60).

The literature recognises that the main attribute of e-voting is convenience which will be enhanced when it is possible to vote from anywhere in the country but there are many concerns centering on security and privacy. Unfortunately electronic voting is vulnerable to a range of new threats to those principles which the current system had been designed to guard against (ICAVM, 2002:6). The

dangers of the new technologies are recognized and consist of concerns regarding hacking, viruses, spoof sites, denial of service, disruption by strikes and system failure (Fairweather and Rogerson, 2002:43-45, Rubin,2001:20;Gritalis 2002:539-556), but the only real recommendation to combat an attack to the system is to maintain the multi-channelled approach to voting while the technology research continues. These findings are echoed by the Foundation for Information Policy Research as it expresses the view that the system is " vulnerable to denial of service attacks on clients, servers and the communications infrastructure" and continues by adding "the very limited benefits that remote e-voting may provide are completely outweighed by the security risks" (Rubin, 2002:3).

An important advantage of the present method of casting a vote is privacy. The voter enters the booth alone to cast their vote and it is securely placed in the supervised ballot box. This supervised environment safeguards the peculiar features of our voting system. However in an unsupervised environment there are real dangers that certain individuals may be subjected to pressure. The home-based voting does not offer the same level of privacy, as the telephone, TV or home PC may be in a common area, and vulnerable voters, such as the women, dependant children, the elderly or disabled may come under pressure to alter their vote. "The public act of voting is incompatible with private life in the family" (Fairweather and Rogerson, 2001:52, 53). The present trials of the new voting methods should continue to afford individuals the opportunity to test these new methods and to allow central government to fully address the issues of security and secrecy.

It has become increasingly clear that the local authorities have undergone significant changes in their structure and mode of operations following the Local Government Act 2000. They have been obliged to adopt one of three forms of executive government and they now have become enabling bodies, no longer necessarily providing services but acting in partnership to commission services to be provided. "For a country once used to stability in its governmental institutions, this breadth, scale and speed of change are at least remarkable and, to many, constitutionally and democratically threatening" (Wilson and Game 2002:94). The local councillors now are either an executive or non-executive members of the local authority. The executive members make and are publicly responsible for the policy decisions through the process of scrutiny by the non-executive members.

In the past there has always been a superficial role for reviewing council decisions but it is now more proactive and in depth. The scrutineers are able to critically examine the actions of the authority and can apportion blame. This increased depth of scrutiny may result in the executive councillors (sometimes called the cabinet members) having to justify their decisions, so in order to reduce any risk to their reputation they may not be willing to implement e-voting. Consequently there is resentment by the local authorities at their loss of services, policy influence and resources (Wilson and Game, 2002:140).

Equally significant are the external influences of information produced by the mass media and personal contact. The recent media reports have centered upon the abuses of the system in certain parts of the country and reinforce the findings regarding security and privacy. In 2002 there were warnings of the dangers of relying on the postal service to deliver the ballot papers on time. 2005 also saw a barrage of media reports describing illegal activities from such diverse places as Hackney, Guildford and Blackburn and asking whether it will be possible to rely on the results of the 2005 General election. Judge Richard Mawrey, Chairman of the Inquiry into vote rigging, made a most damning comment as he found six Birmingham councillors guilty of vote rigging; he said that the fraud would "disgrace a banana republic"(Eastham, 2005)

Nevertheless the most important influences are the direct contacts between individuals. (Schudsen 1993:95) Individuals monitor each other and there is an increasing degree of pressure to adopt or reject an innovation based on peer pressure, this has a cumulative influence on adoption. Valente (1995:15) calls this imitating behaviour, contagion, which can occur as a result of direct social ties or status comparison. The social learning theory is directly applicable to diffusion as one individual learns from another by observation and then does something similar. However this ignores the autokinetic influence which comes into effect when individuals are faced with a decision based on something that they do not care about or do not understand. They will rely on each other to make sense of the innovation and develop a collective approach to create an opinion (Katz and Larsfeld, 1955:185).

Central government policy to gradually introduce e-voting has resulted in the pilot programme which is a widely promoted idea in diffusion research but pilot projects are no guarantee

of diffusion (Kautz and Henriksen, 2002,:160,170). "Almost every local authority in the country has developed or piloted some new service" (Wilson and Game 2002:40). There has been an increase in the number of different pilot schemes that local authorities have been asked to undertake. For example Bradford pioneered steel framed doors in council houses while Broadlands recycles Yellow Pages. It is into this atmosphere of imposed change and experimentation that e-voting has been introduced. Coaffee and Johnston (2005:174) note with some disquiet that "all to often local governments are forced to implement change out of political allegiance, the lack of an alternative route to follow or simply as a result of pressures on time or resources." This constant atmosphere of uncertainty will have an effect on the members of the local authorities as they are asked to consider even more change. Even the Labour MP Dianne Abbot speaking on the BBC (2005) commented that there were too many initiatives.

However it is becoming clear that in a voluntary adoption situation, such as the pilot schemes of e-voting, Rogers individual decision-making theory and the organizational decision making theory amalgamate. Central government acting as an organization has completed stages one and two of the innovation process in organizations, in that they have recognized that there is a problem and have devised a strategy to address it. They then ask for volunteers for the e-voting pilots, at this stage even though there will eventually be a collective decision from each local authority, each appropriate local authority officer, the executive member responsible for this particular policy and the individual members of the full council who have to ratify the decision, consider the innovation on an individual basis. They either decline to take part in the trial or if they agree, the results of the pilot are passed back to central government for re-defining and clarifying prior to the next pilot. The local councillors do not undergo the first stage of Rogers' individual decision-making process theory, knowledge, as in this situation there is no formal mass media campaign which spreads knowledge of the innovation. While there may be some peripheral media reports the information for the agency organization comes from the overarching organization and is bias towards adoption.

The councillors are subjected to the second stage of Rogers' individual decision making process, persuasion. The members of the local authorities may be persuaded to trial the new voting methods as a result of peer pressure from internal or external sources "People can induce each other to a variety of activities as a result of their interpersonal relations and thus their influence goes far beyond the content of their communications" (Katz and Larsfeld: 185).

These findings demonstrate that where an innovation is offered for a voluntary trial by an over-arching organization to a sub-ordinate organization, the Rogers' individual decision-making process model and his organizational decision-making model amalgamate. This situation will pertain in any agency organizational relationship where there is an overarching organization, in this case central government and a sub-ordinate organization and the innovation is introduced on a voluntary basis. The agency organization does not clarify or redesign the innovation, that is the responsibility of the overarching organization. While there may be some peripheral media reports the information for the agency organization comes from the overarching organization and is bias towards adoption. Figure one demonstrates the amalgamated model of Rogers' diffusion of an innovation. This circular testing will continue in this case until central government decides to compulsorily implement e-voting.

6 CONCLUSION

This paper has offered a brief resume of some of the major influences faced by the members of the UK local authorities. The major issue appears to be the drive for modernization by increasing centralization. Indeed criticism has come from the Chairman of the Local Government Association, launching the 2005 manifesto, he claims the "UK now has a uniquely centralised system of controlling public services from Whitehall" (LGA, 2005). It is not surprising that in this atmosphere of enforced change when the local authorities are given the option to instigate even more change by introducing e-voting, they refuse, and without their active co-operation e-voting may never be given a real chance to enhance participatory democracy. While the UK government has devised the recipe for change a major ingredient, e-voting, will not achieve the aim of greater voter participation until the inhibiting factors have been addressed.

Central Government – Initiation stages 1 and 2

Local Government

(Knowledge)   ⟵   Implementation

Persuasion

Decision

Implementation   ⟶   Re-defining and Clarifying
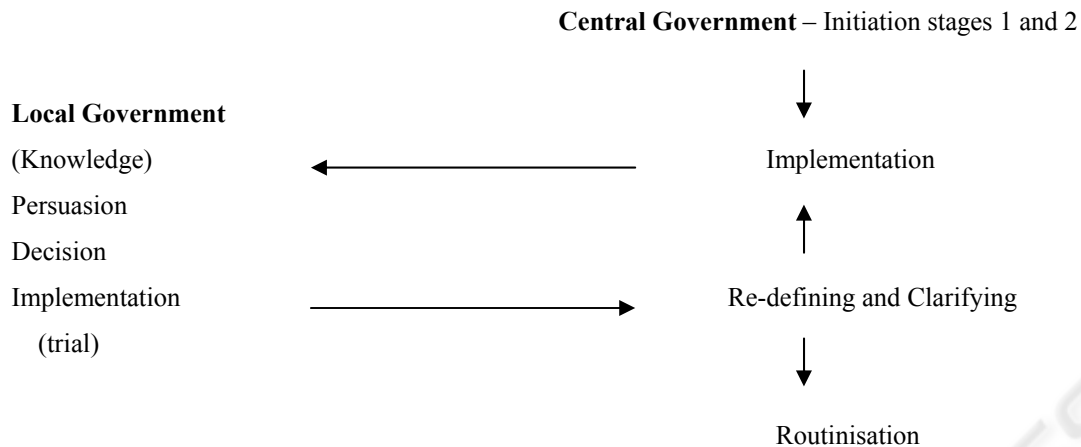
   (trial)

Routinisation

Figure 1: The amalgamated model of Rogers' individual decision-making process and the decision-making process for organizations.

The results of this first part of the research have raised issues which need to be addressed during the second part.   These results together with the secondary data from the councils and the primary data from the interviews will satisfy the objectives and allow an assessment of the hypothesis.   The empirical research will investigate the reasons behind the local authorities' decisions to either embrace or reject e-voting with special regard to the effect of the changes in local government structures and conduct, together with issues of resources, management and soetial-pressure.

It is now clear that on completion of the second part of this research project it will be possible to recommend significant improvements in the way in which innovations from central government should be introduced to local government.

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